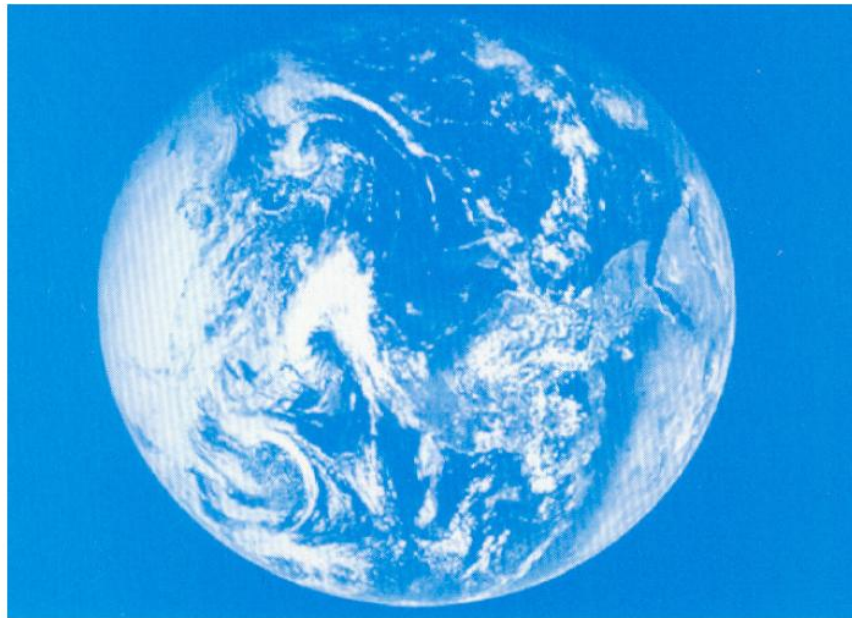


**GLOBAL BUSINESS AND TECHNOLOGY
ASSOCIATION**

**GENERATING INNOVATIVE SOLUTIONS TO RECURRING
PROBLEMS IN THE GLOBAL BUSINESS ENVIRONMENT: A
MULTI-, INTER-, AND TRANS DISCIPLINARY APPROACH
TO FORMULATING AND MAINTAINING A COMPETITIVE
ORGANIZATIONAL EDGE**

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Editors:

**Nejdet Delener, Ph.D
Leonora Fuxman, Ph.D.
F. Victor Lu, Ph.D.
Luis Eduardo Rivera-Solis, Ph.D.**

**GLOBAL BUSINESS AND TECHNOLOGY
ASSOCIATION**

**TWELFTH ANNUAL
INTERNATIONAL CONFERENCE**

READINGS BOOK

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PROBLEMS IN IMPLEMENTING SUPPLY CHAIN COST TRANSPARENCY: AN INTERACTION PERSPECTIVE ON A CASE STUDY IN RETAILING

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ABSTRACT

This paper identifies and discusses problems in the implementation of cost transparency in supply chains. Previous research implies that failure is largely the fault of the supplier. Utilizing a framework that emphasizes the roles of both buyers and suppliers in the formation and development of inter-organizational relationships this paper contests that notion. In fact, in a case study of a buying firm and five suppliers in the retailing industry problems associated with the implementation of supply chain cost transparency largely relate to past and current interaction between the parties rather than to the supplier's activities specifically. Such problems include collision between transactional exchange activities and the implementation of cost transparency, goal incongruence, group dynamics detrimental to implementation, a suspicious atmosphere as a result of past interaction, difficulties in re-defining the nature of the relationship, the threat represented by power asymmetries, and lack of relationship-specific competence.

BRIEF LITERATURE REVIEW AND PURPOSE

Studies of cost structures in many industries indicate that costs of purchased good are substantial, frequently representing upwards of 60-80% of total costs (van Weele, 2005). This means that a firm's profitability is often largely determined by the efficiency of its suppliers (Cooper and Slagmulder, 2004; Gilley and Rasheed, 2000). Buyers therefore increasingly direct attention towards identifying and eliminating inefficiencies in the supply chain (Dyer and Singh, 1998). In effect, many of the concerns traditionally considered internal to suppliers become the concerns also of buyers. In some industries we see, for example, that suppliers and buyers jointly develop products (Agndal and Nilsson, 2009), that buyers help coordinate suppliers' purchases for greater leverage (Carr and Ng, 1995, Lamming et al., 2006), and that suppliers' logistics are streamlined (McIvor, 2001).

Such collaboration tends to require a greater degree of openness concerning costs than traditionally associated with exchange between independent firms (Agndal and Nilsson, 2008). In recent years, several reports of attempts to increase supply chain cost transparency (a.k.a. open book accounting/policy/negotiation) have also been published (Dyer and Chou, 2003; Kajüter and Kulmala, 2005, Lamming et al., 2005). Consensus is that buyers' efforts to implement cost transparency are associated with significant difficulties, though. E.g., based on a study of four supply networks Kajüter and Kulmala (2005) identify several impediments to increasing supply chain cost transparency. Echoing arguments by Dekker (2004) and Drake and Haka (2008) they find that when cost structures become known suppliers fear exploitation by buyers, e.g., in price negotiations or buyers playing off one supplier against another (cf., Seal et al., 1999). Kajüter and Kulmala (2005) further argue that this perception may be intensified when suppliers experience no incentives for cost data disclosure and the authors even find examples of suppliers arguing that cost data should never be disclosed to other firms. This may be exacerbated by the fact that, although some scholars (Lamming et al., 2000) argue that true transparency is bi-directional, in practice buyers tend to require cost data from suppliers without providing similar information in

return (Ellram, 1996). Other problems in Kajüter and Kulmala's (2005) study concern the system for cost transparency; suppliers may not possess the ability to actually provide requested data due to poorly developed cost accounting systems and/or may lack the resources needed to develop such systems.

Although Kajüter and Kulmala (2005) recognize that buyers may also be at fault for failure in implementing cost transparency – for example by not providing incentives or assistance to suppliers – it is implicit in much of the research that problems relating to implementation primarily stem from suppliers' inability and unwillingness to participate. However, cost transparency is a tool to manage an *inter-organizational* relationship and its implementation should be considered in the complex and dynamic context of that relationship (Lamming et al., 2005). In line with this, much of extant research argues that suppliers' distrust is a reason for failure (Caglio and Ditillo, 2008; Vosselman and van der Meer-Koistra, 2009). Trust, however, does not exist in an organization. Rather, it is built over time between two organizations as they *interact* and, thus, takes on properties unique to the individual relationship at a particular point in time (cf., Morgan and Hunt, 1994). Rather than attempting to assign blame for failure to either of the parties, additional complexities relating to implementation may therefore be identified when focusing on the *interaction* between the buyer and supplier. That is the purpose of this paper. More specifically, drawing on an empirical study of a Swedish retail buyer and five of its suppliers, this paper identifies and discusses problems relating to the implementation of supply chain cost transparency.

In pursuing this purpose, the paper intends to make three main contributions. Firstly, it aims to extend current research by presenting a range of complexities either not addressed or insufficiently discussed in extant studies of supply chain cost transparency. Secondly, by undertaking an empirical study in a largely new context – namely the retailing industry – this research adds to the bulk of research which has primarily been concerned with cost transparency in a manufacturing context. Third, drawing on these insights, the paper also aims to present recommendations that may guide managerial practice as attempts to implement supply chain cost transparency are undertaken by more and more firms and in more and more industries.

THEORETICAL FRAMEWORK: THE INTERACTION MODEL

First published in 1982, the Interaction Model represented an important contribution to the debate on how exchange between firms should be understood, presenting the buyer-supplier relationship as such as the unit of analysis (IMP, 1982). Although developments of the model have since been proposed, its five main interrelated dimensions remain purposeful for analyzing exchange.

(a) *The Parties*. The actors involved in the relationships constitute the starting point of the model. They are defined in terms of their aims and goals, competencies and experiences, access to and control over resources, as well as organizational structures. These characteristics evolve over time as the parties interact and are influenced by their environment, either in an evolutionary manner or guided by strategic initiatives (Gilley and Rasheed, 2000).

(b) *The Exchange Process*. The exchange process involves the day-to-day transactional activities that are the primary focus of and reason for the relationships, including exchange of products, services and information for monetary compensation. Thus, exchange is one form of interaction process involving the two parties.

(c) *The Relationship-Building Process*. A second interaction process involves the creation of the relationship between the parties, a long-term oriented process. A relationship develops as firms carry out day-to-day transactional activities, i.e., exchange processes (Naude and Turnbull, 1998). In a sense, the relationship-building process represents the totality of exchange processes, in the course of which the parties adapt to each other's ways of doing business and behavioral patterns become institutionalized (Sheth and Parvatiyar, 2000).

(d) *The Atmosphere*. A relationship exists in an atmosphere particular to that relationship. As the relationship develops, so does its atmosphere which is often described in terms of power, expectations, trust and commitment (e.g., Helper, 1991). Power refers to the distribution of power in the relationship, which to a large

extent determines how the parties act (Cox et al., 2000). If power asymmetries are not abused, this can engender trust between the parties (Håkansson and Gadde, 1992). Trust is thus largely connected to expectations regarding the behavior of the other party (Johanson and Mattsson, 1987). Goodwill trust refers to the expectation that the other party will not behave opportunistically when given the chance to do so, whereas competence trust refers to beliefs in the abilities of the counterpart in the relationship (Sako, 1998). With increasing levels of trust, the parties may become more and more committed to the relationship (Helper, 1991; Nooteboom, 1999) in terms of relationship-specific investments such as adaptations of business processes. The creation, shaping and deepening of a relationship is therefore often described as an iterative process of trust-building and commitment (Dyer and Ouchi, 1993). In a sense, the atmosphere of a relationship represents what the parties are willing to do for each other and what they are willing to risk.

(e) *The Environment.* The Interaction Model recognizes that the relationship as such does not exist in a vacuum; rather, each relationship is part of a complex web of interrelated relationships, often referred to as business networks (Håkansson and Snehota, 1995; Wynstra, 1998). The actions a party may take within a particular relationship are both constrained and enabled by the other relationships that party belongs to (Dyer, 1996). This also serves to temper behavior; abusive practices in relation to one supplier may generate distrust by other suppliers (Axelsson and Easton, 1992).

Jointly, these five groups of interrelated variables are intended to enable the analysis of interaction in an inter-organizational relationship. Based on this framework, when attempting to identify problems relating to the implementation of cost transparency we will address the following research questions:

- How is implementation influenced by day-to-day interaction and long-term ambitions for the relationship?
- How does a mismatch between the parties' expectations and aims influence implementation?
- How do experiences from past interaction influence current attempts at implementation?
- How does power distribution between the parties influence implementation?
- Does the firm's embeddedness in a network context influence implementation? If so, how?

METHOD: A CASE STUDY APPROACH

The research presented in this paper represents an embedded, multi-site case study (Eisenhardt and Graebner, 2007) of a buying firm and five suppliers in the retail industry, a sector poorly explored in the context of cost transparency (Dekker, 2003). Since the unit of analysis in the Interaction Model is the inter-organizational relationship, both the buying and selling firms have been studied. Data were collected through semi-structured interviews with 18 key informants, representing the buying firm (11 respondents, including current and former Chief Purchasing Officers, Purchasing and Category Managers, Project Managers, Analysts, and Supply Chain Managers) and five suppliers (7 respondents, including CEOs, Market Managers as well as Key Account Managers). Respondents were interviewed on 1-5 occasions during a period of 1.5 years. Most interviews were done in person, the majority by two researchers. All interviews were recorded and transcribed.

The qualitative content analysis process followed several steps. First, the dimensions of the interaction model were used as a way of sorting data. Subsequently, answers to the research questions were sought in sorted data. As common in qualitative research, findings were then challenged by iteratively returning to raw data (cf., Miles and Huberman 1994).

CASE FINDINGS: SUPPLY CHAIN COST TRANSPARENCY IN THE RETAILING INDUSTRY

We have studied the attempts by a large Swedish retail buyer to implement cost transparency in its supply chain. Due to confidentiality, the names of firms and individuals are withheld (the buyer is referred to as Buyer, and the suppliers as Supplier 1-5), as well as product categories, firm sizes, etc. (see Table 1 for main observations).

Table 1: Most important impediments observed per case

Relationship	Main impediments to implementing cost transparency
Supplier 1	<ul style="list-style-type: none"> -Suspensions regarding buyer's intentions based on prior interaction as well as observations from buyer's practices in regard to other suppliers. -Unwillingness to risk opportunistic behavior since buyer will not reciprocate in data exchange. -Hazards relating to power asymmetries are presented as an argument to refuse any proposition by the buyer to even discuss cost transparency.
Supplier 2	<ul style="list-style-type: none"> -Clash between organizations' short-term goals relating to distributive exchange behavior and ambitions to establish long-term collaboration. -Different people in both organizations had different goals and ambitions with the collaboration. -Realization grew that there was less goal congruence than thought initially. -Maintaining enthusiasm proved difficult once easy gains had been realized. -Changes in staff changed group dynamics and there was disagreement over what had been decided.
Supplier 3	<ul style="list-style-type: none"> -Staff turnover at the supplier and changes in ownership as well as reorganization at the buyer meant that the collaboration slowed down when implementation groups changed.
Supplier 4	<ul style="list-style-type: none"> -The type of collaboration existing before implementation of cost transparency was put into question by members of both parties' organizations. -Disagreement over transparency procedures, level of detail of cost data to be shared, and who should drive the project. -Fears regarding buyer's use of data based on past experiences with buyer. -Developed policy not to share detailed cost data.
Supplier 5	<ul style="list-style-type: none"> -Different initial expectations and poorly communicated expectations during the initiation and (attempted) implementation process. -Buyer unable to elicit cooperation from supplier's representatives due to organizational changes at the supplier.

The project takes its starting point in Buyer's desire to lower costs, partly brought on by increasing competition from new market entrants. The implementation of cost transparency represents one aspect of attempts to achieve closer collaboration with selected key suppliers. Together with external consultants a tentative model for implementation was developed and the first suppliers were approached in 2006. It is clear that implementation was problematic, and when analyzing the empirical material several themes emerge.

Much of the interaction around transparency is characterized by a great deal of suspicion on the side of suppliers, suspicions that Buyer does not always manage to allay. A Category Manager at Buyer comments on her own organization's fault in creating distrust, *"I think maybe some of my colleagues have misunderstood the uses of open books, that they put too much pressure on the suppliers."* Echoing this, respondents at Supplier 1 express doubts regarding Buyer's intentions concerning use of cost data, citing past experiences with Buyer as well as observations from other relationships as important reasons. One respondent there notes, *"[t]he perception in our industry is that [Buyer] is not quite as fair as they want to make out. [...] They talk a lot about partnership and things like that. But if it's a partnership, than it's two-way, and so far it's only one-way, so it's not a partnership. And then there will be no open books."* Supplier 1 thus refused any participation in the supply chain cost transparency project, also citing the fact that Buyer might use Supplier 1's position of dependence on Buyer (who represents 50% of turnover) to forcibly extract cost information unless a clear position is taken. Similarly, the CEO of Supplier 3 argues, *"[W]e, and probably many others, are a bit worried about this open business model. It's based incredibly much on some form of trust, that you understand each others' business, that you understand each others' need to make money and that you can see that this thing is useful for both of us."*

The collaboration with Supplier 4 is somewhat different than the other relationships in that already two years before the supply chain transparency project was initiated Supplier 4 had been granted what may be termed favored supplier status. Although this generated a volume boost, the financial outcome was initially quite poor for the supplier due to the discounts they had to give Buyer to become favored supplier, which generated internal criticism at the supplier and the nature of collaboration was questioned. Also at Buyer there was some hesitation whether to continue this type of collaboration with Supplier 4, which influenced subsequent interaction around cost transparency. According to a Category Manager at Buyer, *"We had some initial meetings in the first quarter [of 2007], we were in complete agreement regarding what we wanted to achieve. But we never got past the*

threshold [...]. We were a bit too naïve". As representatives of Supplier 4 expressed a great deal of skepticism regarding Buyer's requests for cost data, it was agreed that only limited transparency would be granted, and then only when it was clearly necessary to achieve joint aims. According to the Category Manager, "When we started the collaboration with [Supplier 4] we even made a statement that we were not out to cut their margins." Supplier 4 then became more enthusiastic and suggested that their own business development department should handle the development of the value chain project. Representatives of Buyer did not want to give up control, however. According to the Category Manager, "[I] guess it's an historical thing, a buyer-supplier thing, that we're not entirely confident that they always look to our best, but rather to their own good. A Key Account Manager at Supplier 4 explains the reasons for withholding cost data: We don't have open books with [Buyer]. [...] We're quite open in our dialogue, but we don't have any agreement that regulates open books or insights into our organization. We've had such discussions but we've found a level that both parties say that 'this is fine, we can both live with this'." According to Buyer's Category Manager about Supplier 4: "There we would have liked to come much further than what we've done. They haven't opened up. We're really discussing hypothetically, where is the potential? But we haven't made any calculations or looked at actual costs. [...] They can't give up any numbers. [...] But I think the more trust you have in each other, that this isn't about ferreting out information and using it against them, I think they will soften."

A Project Manager at Buyer comments on the relationships with Supplier 5, again noting skepticism on the side of the supplier and how interaction failed when this was not addressed properly. *"You have to take it to the highest level in the firm or business group, to get an 'OK' to share such information. [...] And if you look at the case of [Supplier 5] we hadn't done that...we hadn't been clear enough about what we expected. [...] I'm not saying that it's completely ruined; I think we can still move forward, but it takes some work [...]."*

At the same time, the CEO of Supplier 5 resigned, and the firm – in itself representing the result of a previous merger – was split into two firms. People who remained in the organization that would normally have been Buyer's contact people were unwilling to make decisions about closer collaboration. Buyer was also entering a process of reorganization, which meant that staff there was unwilling to take much initiative. According to a Category Manager, *"[W]hen we announce that there's going to be organizational change, all development work grinds to a halt."* Efforts to implement transparency therefore were not driven actively by Buyer and, obviously, Supplier 5 took no further action.

Also in other relationships can we see how sensitive interaction relating to cost transparency implementation is to turnover in staff. For example, regarding the collaboration with Supplier 3, a Category Manager at Buyer notes, *"[O]ur dilemma in the case of [Supplier 3] you might say that there is more or less status quo, which is mainly due to turnover in staff. [...] In the middle of this process, they changed owners because [previous owner] sold [Supplier 3] to an investment firm. [...] They've had to reallocate resources to focus internally. So we're just waiting for them to get a new CEO, so we can start over."*

The importance of identifying the right people in the supplier's organization is emphasized by a Category Manager at Buyer. *"Something else we've learnt is that the people we normally talk to, on the supplier side, they don't have the holistic view. They can't answer our questions. We have to get out to their facilities and ask those who are either production managers or logistics managers, to get an answer. The people we normally talk to have never even considered the idea [of sharing cost data]. Sometimes we even know more about production than the supplier's contact person... [...] they're the old salespeople, and so on, they're used to talking campaigns and product ranges. And then we try to talk value chains and analysis and a holistic view..."* The Category Manager at Buyer continues, *"More than 50% of the success factors are people, not just chemistry, but also competence, interests, ability to see the whole picture. And that didn't work with [Supplier 2]."*

Another problem can arise due to turnover in staff; based on experiences from several such projects, a Category Manager at Buyer argues *"It's very important that it's documented, what's been said and what's been done, so that you understand this if we change people, so you don't have to start all over."* Even with the same staff, maintaining momentum on the side of the buyer and acceptance by the suppliers may prove difficult over time. A Category Manager at Buyer comments on the collaboration with Supplier 2: *[W]e started in 2006, and carried on in 2007, now, in 2008, we're starting to notice that we're running out of steam, and we can't have that. So we have to redouble our focus internally, make sure that our people prioritize this."*

Several representatives, both of Buyer and of the suppliers, also note how difficult it is to change behaviors established during years of price negotiations. According to the Marketing Manager of Supplier 2, *[I]n parallel [with attempts to implement cost transparency] we have also had the whole traditional thing, with negotiations and tough “nos” and things like that. [...] We see consequences of people in our own organization who have goals that are not the same as the company’s overarching goals and that do not match what we want to achieve together; then there is a clash.* This is reflected in the response by a Category Manager at Buyer when asked about the relationship with the Supplier 2. *“Right now we’re involved in really tough discussions with them, about prices obviously, and that’s connected to that we don’t really feel that they’ve shown us the type of open books that we expected. So, I think we had different ideas from the outset. Still, we’ve worked excellently together and we’ve looked at a number of components throughout the value chain, but if we end up in discussions about what we want to pay for a certain product, then they shut the door. Then they take on their old supplier role.”*

CONCLUDING DISCUSSION: PROBLEMS IN ACHIEVING SUPPLY CHAIN TRANSPARENCY

We started out challenging the commonly presented view that failures in implementing cost transparency in the supply chain are largely due to suppliers’ unwillingness and inability to participate. Relating our case findings to the Interaction Model and the research questions we formulated, we present a slightly different picture and identify a number of problems hitherto not well addressed in the literature. We highlight eight main problems relating to the interaction between the buyer and seller. To a large extent, these problems relate to lack of trust between the parties and, in that way, support the extant literature. However, when looking more closely at the interaction, further complexity can be added to the dynamics of trust and distrust than what is revealed by many prior studies.

(i) Day-to-day exchange vs. long-term relationship building. The Interaction Model highlights that the process of relationships-building is interrelated with the exchange process represented by day-to-day transactional activities (IMP, 1982). To these two processes we may add a third process, namely the special project of implementing cost transparency. Fundamental to the interaction model is that the atmosphere of a relationship to a large extent is determined by how transactional activities are carried out. For example, for goodwill trust (cf., Sako, 1998) to form over time trusting behavior has to be shown and be reciprocated in daily exchange. We can make a similar observation concerning implementation of cost transparency. In fact, respondents point out the difficulties in implementing something as sensitive as cost transparency, which is intended to generate joint long-term benefits, when simultaneously the two firms are involved in price negotiations that in turn tend to focus on short-term benefits of the individual parties. In effect, we see a reversal to distributively oriented behavior that cost transparency is intended to counteract. This, in turn, may generate suspicion on both sides; suppliers fear that cost data will be used to their detriment by buyers while buyers may suspect that suppliers are less than forthcoming in regard to the data they do disclose. In summary, transactional exchange activities may constitute an important impediment to the implementation of supply chain cost transparency.

(ii) Goal incongruence. The Interaction Model highlights that the goals and aims of the organizations are a fundamental determinant of how they interact. It is difficult to create the type of positive atmosphere crucial for implementing cost transparency when there is (perceived) goal incongruence. They buyer’s purpose with cost transparency is typically to lower its costs of purchased goods, whereas the supplier wants to guarantee and/or increase sales levels. In themselves these are not incongruent goals, and both cost management efforts and the related incentive structure can be supported by transparency. The difficulty lies in aligning the parties’ aims and expectations and then designing a system that sustains mutually beneficial cooperation.

(iii) Group dynamics. Relatedly, the case shows that implementation is sensitive to group dynamics. Goals cannot only be seen at the level of the organization, but also at the level of the individual as emphasized by the Interaction Model. Respondents comment on how easy it is for implementation to derail when the people involved – on the buying or supplying side – are replaced by other people who may not have experience from the particular relationship or who may have different ideas about implementation. A related challenge concerns the

large number of people and wide range of competencies involved in a relationship where joint cost reduction is on the agenda. It is clearly difficult to ensure that all members of staff “pull in the same direction”, especially if prior interaction (i.e., exchange) between the firms has been managed by a much smaller group of people whose skills are largely in line with transactionally oriented activities.

(iv) *Past interaction.* The Interaction Model presents relationship-building as a cumulative process. The current state of any relationship represents the totality of exchange and other joint activities in the past. If the atmosphere is one of trust, a mistake by either party may be overlooked. Similarly, consistent opportunistic behavior in the past cannot easily be overcome by the buyer suddenly behaving in a benevolent manner. This is very apparent in our study. Some respondents argue that their firms have not been treated well by the buyer in the past, and are distrustful of the buyer’s current attempts to introduce a closer form of collaboration supported by cost transparency. This is reflected in interaction patterns. Even when the buyer does offer the supplier the opportunity of becoming preferred supplier (with larger volumes, longer contracts, etc.) there remains reluctance to share cost data, reluctance relating to past interaction.

(v) *Lack of relationship-specific competence.* Continuing on the theme of past interaction, the Interaction Model presents relationship-specific competence, i.e. adaptations to and insights concerning each others’ business processes, as something that happens over time. If there is a lack of such competence or “relational insights”, e.g., in an early stage of a relationship, the buyer may approach the supplier in the wrong way and the supplier may misinterpret the buyer’s advances. Therefore, attempting to implement cost transparency in the wrong stage in a relationship life-cycle can be damaging for the relationship as such.

(vi) *Re-defining the nature of relationship.* Past interaction determines the current atmosphere of a relationship, the atmosphere determining what the parties are willing to do for each other. In our study, implementing cost transparency constitutes part of a deeper collaboration between buyers and suppliers, i.e., part of a process of *redefining* the nature of a relationship and its atmosphere. It is clear that representatives of both the buying and selling side find this confusing; having once been involved in fierce negotiations, suddenly they are expected to be benevolent partners acting in each others’ interest. Not all employees agree with or even understand this transformation.

(vii) *Power relations.* The Interaction Model highlights power relations as an important part of the atmosphere of a relationship. This might relate to the overt exercise of power asymmetries, but the mere existence of unequal distribution of power may also influence how the parties interact. In fact, one supplier respondent argued that the threat of the buyer sometime in the future making use of its power advantage was sufficient reason to refuse sharing any cost data. This may thus be a very fundamental form of almost institutionalized distrust that is difficult to overcome regardless whether trusting behavior is displayed by the buyer.

(viii) *Industry norms of behavior.* Although we did not identify any specific problems relating to embeddedness in the network context as such, we do note that implementation processes are likely to be strongly influenced by industry norms. Unlike, e.g., the automotive industry where supply chain cost transparency is a natural part of buyer-supplier collaboration and represents the norm rather than the exception, in the retailing industry this practice represents a novelty. Since there has traditionally been little in the way of joint product development and since negotiations are often highly distributive in nature, there is a greater degree of suspicion between buyers and suppliers, which makes implementation more problematic.

Although not the express purpose of this paper, it is also worth mentioning that we did identify a number of problems relating largely to the buyer, problems not raised in extant research. These include lack of support from top management, poorly developed work processes, poorly developed knowledge management processes and lack of coherent mindset inside the buying organization. We also found problems relating primarily to the supplier, problems largely reflecting those particular to the buyer: lack of top management support leads to short-term orientation, lack of coherent mindset in the organization leads to conflicts between those charged with implementing cost transparency and those focusing on transactional activities. Our findings also support Kajüter and Kulmala’s (2005) study in that we find insufficient resources deployed by the supplier to be an important impediment. Similarly, the policy among some of the buying firm’s suppliers is not to disclose any cost data, in particular the multinational firms. These are also in a position where the buyer cannot

force cost data disclosure as power relations cannot easily be exercised. One of the main problems identified by Kajüter and Kulmala (2005) was suppliers' inability to actually present the cost data requested by buyers due to poorly developed cost accounting systems. We did not encounter this particular problem in our study, although the relevance of this issue arguably depends on the type, size, experience etc. of the suppliers involved. We may simply have encountered suppliers with more developed administrative processes than Kajüter and Kulmala (2005).

Strategic Recommendations

In conclusion, what can be done to facilitate implementation of supply chain cost transparency? Since it is a process initiated and largely managed by a buying firm (Ryals, 2006), we present five recommendations that such a firm may consider if it wants to create a positive atmosphere:

- Have well developed routines in place before contacting suppliers. Approaching suppliers in an ad-hoc manner will not help build competence trust; in fact, it may even reduce it. When suppliers are distrusting of buyers' ability to use cost data, they may also become more reluctant to share it.
- Demonstrate that data sharing is necessary to achieve specified aims (product development, streamlined logistics, etc.). Avoid asking for data when its uses are unclear or long before data are needed. Demonstrating that data sharing is need-based is important if you want to create goodwill trust, without which suppliers are more likely to resist disclosing cost data.
- Suppliers should be presented with clear incentives for data sharing. These may relate directly to disclosed data – such as efficiency improvements – but may also constitute rewards for data sharing, such as longer contracts. Caution should be exercised when presenting the latter form of incentive, though, since as such it does not relate to joint benefits from transparency and does not justify transparency to suppliers as being need-based.
- Extant research shows that transparency is typically one-sided. Suppliers may become more trusting of buyers' intentions if the latter also take a risk by disclosing sensitive information.
- Cost transparency projects should involve those who manage day-to-day exchange, both on the side of the buyer and the supplier. This helps create a coherent internal mindset, without which mixed messages may be sent between individual members of buyers' and sellers' organizations.

Limitations

On a final note, it should be recognized that this study suffers from a generalizability problem since it is based on a case study. Future research could test the external validity of our findings in large-scale surveys in different industry, country and culture contexts.

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SOCIO-TECHNOLOGICAL REGIMES AND TRANSITION CONTEXTS: LEARNING BY IMPLEMENTING A SUSTAINABLE INNOVATION MODEL IN A BRAZILIAN ENERGY COMPANY

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ABSTRACT

The purpose of this paper is to present a conceptual model for sustainable innovation process, arguing that the integration of sustainability thinking into innovation processes is in best business interests. From a real case within a large energy company in Brazil, this work addresses issues raised in the 'lessons learned' and improvements from implementing the proposed sustainable innovation model. The model emphasizes transformation of whole socio-technological regimes, rather than separately analyzing and promoting more environmental or social technological products and processes, assuming that the path to sustainability requires strategies that guarantee financial success, managing simultaneously environmental and social responsibilities. Based on empirical evidences, this paper focus on the contribution of transition management, adaptive planning and socio-technical approaches towards the effective implementation of a sustainable innovation model.

INTRODUCTION

The paradigm of sustainable development presents a challenge to companies that conduct cutting edge research and endeavor to create new distinctive products and services. It also challenges the markets and society for which new products and services are destined, shaped by cultural value systems and political frameworks. Based on the assumption that future technologies will stimulate more sustainable business, the challenge of really integrating sustainability thinking into business processes is significant. The core issue is how can companies capture the business potential of sustainable development and integrate economic, social and environmental criteria into their strategic decisions, particularly those related to technological management.

As defined in the Brundtland Report (WCED, 1987), the principles of sustainable development are grounded on inter- and intra-generational solidarity, public participation, environmental protection and social equity, integrated with economic development. In the business sphere, sustainable development means the adoption of business strategies that meet the needs of the enterprise, as well as its stakeholders, while protecting and sustaining the resources that will be required in the future. This new business model requires a new corporate strategy formulation process that integrates two of the basic dimensions of business on an extended scale: profitability and legitimacy. Normally applied to Government authorities, legitimacy became perceived by economic agents through the expansion of social and environmental problems, turning into an important element in building up sustainable competitive advantages.

Based on the assumption that future technologies and technological innovations will drive more sustainable businesses, offering companies new options for creating value, the challenge is to discover how the companies operating in increasingly more complex contexts can include the vision of economic, social and environmental sustainability – equally complex – in their technological strategies. Whereas:

- new technologies may offer revolutionary solutions that can make obsolete the bases of many of today's industries, making efficient use of raw materials and energy; as well as drastically reducing human 'footprints' on the planet (Hart; Milstein, 2003; 1999);

- responses to the new environmental problems require more substantive transitions in the coming decades, which mean major changes in energy, mobility, materials, and agricultural systems. These system changes are defined as ‘socio-technical’ because they demand new technologies, and also changes in consumer behaviors, regulations, and cultural meanings (Geels, 2004);
- the socio-technical theoretical framework stresses the need for adapting and making compatible organizational processes and technologies (Trist, 1981; 1976; 1976a; Emery & Trist, 1960; 1965; 1973; Cherns, 1976), as well as adaptive planning approaches that treats planning as an ongoing learning process (Burns, 1981; Pava, 1980; Melo, 1977; 1991, 2003);
- a transition of the energy sector towards a renewable-based system is one of the challenges that results from the debate on the global climate problems and diminishing fossil fuels. This will demand access to sustainable innovations in energy production and usage (Jorgensen, 2005);
- a review of the transition management literature reveals a strong emphasis on the importance of learning in the process of induced change towards sustainability (Brown et al, 2003), .

In the first section of this paper, sustainable development is conceptualized from the business standpoint, based on the assumption that technological innovations will drive more sustainable businesses. Then a conceptual model for sustainable innovation process is proposed in the second section, integrating elements of transition management, adaptive planning, socio-technical and organizational learning approaches. As this is an empirical work of organizational learning in a socio-technological transition process towards sustainability, based on an action-research project in a large Brazilian energy enterprise, it is believed that the dissemination of the proposed model may foster significant organizational changes compared to current technology management practices in energy sector, still tightly focused on economic or financial payback of innovations.

CORPORATE SUSTAINABILITY AND TECHNOLOGICAL INNOVATION

The concept of corporate sustainability is rooted in concerns that emerged during the early 1970s, with the demographic explosion and impacts caused by economic growth, more specifically the indiscriminate use of natural resources. For the business enterprise, sustainable development means adopting business strategies and activities that meet the needs of the enterprise and its stakeholders today, while protecting, sustaining and enhancing the human and natural resources that will be needed in the future (IISD, 2009).

Corporate sustainability is defined by Hedstrom et al. (1998) as an approach able to create prosperity within a long-term time-frame, through integrating strategies spurring economic growth, environmental preservation and social equity. The pressures imposed by social systems urging companies to adopt the vision of sustainability as quickly as possible were triggered largely by the need to align their processes with these three objectives. Within this context, O’Riordan and Voisey (1998) address the transition to sustainability as an ongoing process, based on the assumption that ‘pure sustainability’ is an idealized state that can never be attained. The authors propose a sustainability scale that varies from the weakest sustainability stage, with minor alterations to environmental practices, to the strongest sustainability stage that is self sustainable and inclusionary, taking into account the interests and needs of the many stakeholders involved in the decision-taking processes.

As the outcome of an evolutionary process that began during the late 1990s, important approaches and models have appeared for corporate sustainability, addressing companies eager to operate in sustainable ways. One of the most important tools of this type is the Triple Bottom Line approach proposed by Elkington (1998), which has been steadily fine-tuned since then. In addition to the Triple Bottom Line approach, The Natural Step (The Natural Step, 2000) model is also identified, as well as the Natural Capitalism approach (Hawken et al, 1999), and the Capital Theories model (Porritt, 2001; Dyllick & Hockerts, 2002).

The adoption of the Triple Bottom Line approach to sustainability for organizational processes involving technological development, its strategic choices and innovations, calls for a conceptual framework that puts the mutual dependency of social and technical systems at the centre of the analysis. Such dependency has been also stressed by innovation studies, particularly from an evolutionary economics background (Nelson and Winter, 1982; Dosi, 1982; Freeman, 1992).

From this perspective, innovations are embedded through technical systems or technical regimes; through the embodiment of knowledge as tacit knowledge, at cognitive level; and through the orienting and focusing function of technological paradigm. For this reason, Freeman (1992) arguments that organizational and institutional innovations are deeply associated with technical innovations. Moreover, actor-network studies have

demonstrated the intricate connection between users and producers of technologies by analyzing perceptions of users constructed in the design process and embodied in technologies (Callon, 1992).

Transition management literature emphasizes the importance of learning in the process of change towards sustainability (Brown et al., 2003), and learning-by-doing has been considered by several authors as its essence (Loorbach and Rotmans, 2006). Beyond the learning aspect, it is also reinforced that a system change may require not only new insights into the strategic options, but also changes in the normative level, including values, standards and rules that direct decision-making processes and the actions of organizations (Kerkhof and Wieczorek, 2005; Almeida, 2006).

The evolutionary view of learning implies that there can be no learning without a reflexive action. From the theoretical background conceived by Argyris and Schön (1978, 1996), which is based on concepts of single and double-loop learning, debate emerged about distinctions between incremental and transformational change and boundaries between the two. From cognition-behavior debate on organizational learning, it is important to mention the analysis presented by Fiol and Lyles. They state that “it is essential to note the difference between cognition and behavior, for not only do they represent two different phenomena, but also one is not necessarily an accurate reflection of the other” (1985, p. 804). They also suggest that learning involves changes in cognition, while adaptation involves changes in behavior. For purpose of this paper, we accept a broader definition of learning, whether it has a cognitive focus, a behavioral focus, or embraces approaches that mix altogether.

From the transition management perspective, Kerkhof and Wieczorek re-conceptualize organizational learning as “a collective process in which stakeholders generate new insights into, and a better understanding of, the different perceptions, ideas, interests, and (normative) considerations that exist with regard to the nature of the transition themes, as well as with regard to the appropriate strategies to induce the transition (i.e., the *objects of learning*). These new insights may lead to a change in actors’ way of thinking and to joint actions that aim to contribute to inducing the specific transition (i.e., the *results of learning*)” (Kerkhof and Wieczorek, 2005, p.736).

In a complementary way, the socio-technical principles (Cherns, 1976), the organizational learning approach (Argyris and Schön, 1978, 1996; Fiol and Lyles, 1985; Kerkhof and Wieczorek, 2005) and the transition management literature (Geels, 2004; 2005; 2007; Loorbach and Rotmans, 2006) stress the view that sustainable technological development will have to go along with a process of change of social and organizational contexts.

Given the rising importance of sustainability issues, one can anticipate that the survival of organizations can only be assured through a well-established innovative process, designed to deal with complexity of interrelationships and uncertainty that characterizes the meta-problem of sustainable technological development. Moreover, such innovative process encompasses fundamental changes that cannot be confined to one subsystem of an organization. In the words of Trist (1976, p.233): “the larger system either negates it or is transformed by it. The sustaining of such transformation requires the working out of a new organizational philosophy. This must make explicit the relevant implications of the value change in terms acceptable to understandable by all concerned at all levels. It must also show how individual and organizational purposes may be reconciled, and how these purposes relate to wider societal changes”.

A SUSTAINABLE INNOVATION MODEL BASED ON AN INTEGRATED CONCEPTUAL APPROACH

The sustainable innovation model was implemented in Petrobras – a large Brazilian energy company through four action-research experiments covering all company’s technological system: (i) upstream technological sub-system concerning oil exploration and production activities; (ii) downstream technological sub-system, and (iii) gas & alternative energies’ technological sub-system.

The implementation process involved the participation of around one thousand specialists and managers from the many different areas of this company, validating the model in the ‘process’, pursuant to the favorable assessments after the workshops organized for each experiment. As a result, from July 2004 onwards, the model and a digital system were disseminated more easily throughout all the organizational units involved in research, development, upgrading, adapting and applying technologies related to the end-activities of the Petrobras System.

Before describing the model as such, it is necessary to present the analytical framework and assumptions on which its conceptualization was based. The model components are described together with their

inter-relationships, stressing the importance of four organizational elements that are rated as critical for bringing it into operation: (i) leadership; (ii) strategic technology alignment; (iii) organizational culture; and (iv) learning curves, following the ‘double-loop’ and ‘single loop’ concepts of Argyris and Schön (1978, 1996).

Table 1 presents the analytical framework with the variables, the characteristics of innovation management on sustainable mode, and the main contributions from the theoretical referential briefly presented in the previous section.

Table 1: Sustainable Innovation Management: Analytical Framework

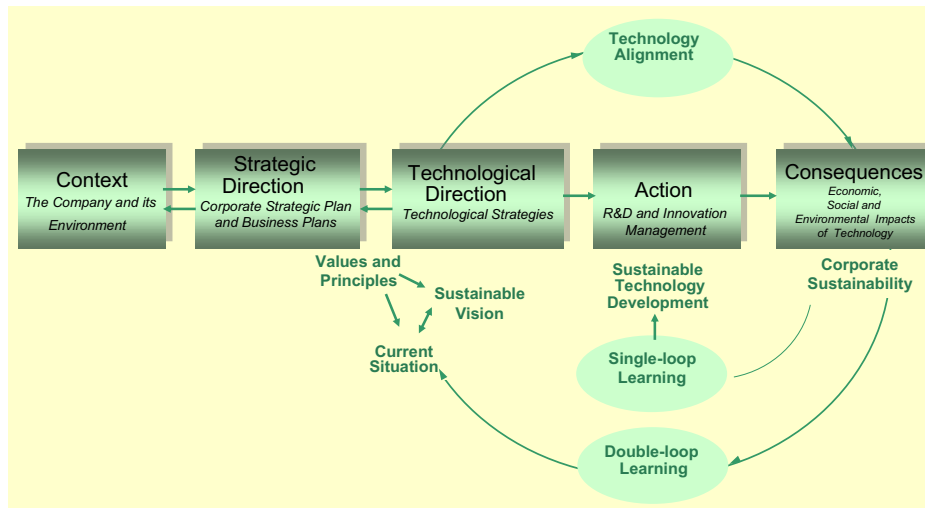
Variable	Characteristics of sustainable innovation management and contributions from the theoretical referential
Period	<ul style="list-style-type: none"> ♦ 2004 onwards.
Mode	<ul style="list-style-type: none"> ♦ Sustainable. ♦ Contributions from IISD (2003); Hedstrom et al.(1998); Hall & Vredenburg (2003); Hart & Milstein (2003); GRI (2002); Partidario & Vergragt (2002). ♦ Socio-technological regimes and transition contexts (Geels, 2004; 2005; 2007).
Emphasis	<ul style="list-style-type: none"> ♦ Profitability and growth (Porter, 1989; Roussel et al., 1991; Miller & Morris, 1999). ♦ Social responsibility and environmental accountability (WBCSD, 2000).
Sustainable development approach	<ul style="list-style-type: none"> ♦ Triple Bottom Line with broad-ranging classifications (Elkington, 1998; 1999; Dyllick & Hockerts, 2002). ♦ Normative nature due to the changes required (Ozbekhan, 1973; Melo, 1977; 1991).
Organization for innovation	<ul style="list-style-type: none"> ♦ Technological cooperation networks and partnerships (Rothwell, 1994; Callon, 1992).
Stakeholders engagement	<ul style="list-style-type: none"> ♦ Broad-ranging networking with the S&T community, the government and other players in the value chain (Rothwell, 1994). ♦ Learning and stakeholders participation in transition processes towards sustainability (Kerkhof; Wieczorek, 2005).
Innovation strategy assumptions	<ul style="list-style-type: none"> ♦ Alignment of technology strategies with business strategies (Roussel <i>et al.</i>, 1991) and strategic headroom for high-risk/high-reward R&D activities over the long term (Miller & Morris, 1999; Freeman, 1974). ♦ Focus on long-term vision and sustainability (Almeida, 2006).
Links between R&D and strategic corporate planning	<ul style="list-style-type: none"> ♦ R&D contributes to corporate strategic planning, looking for business opportunities based on promising technology developments (Miller & Morris, 1999; Christensen, 1997; Hart & Christensen, 2002). ♦ Technological alignment with current businesses (Roussel et al. 1991).
Drawing up innovation strategies	<ul style="list-style-type: none"> ♦ Technological maturity, competitive impact of the technology, competitive technology positioning (Roussel et al, 1999). ♦ Social and environmental impacts (Almeida, 2006). ♦ Adoption of adaptive planning approaches due to the high complexity of the social and technical sub-systems (Burns, 1981; Pava, 1980; Melo, 1977; 1991).
Organizational culture and learning curves	<ul style="list-style-type: none"> ♦ Stress on the dual cycle learning curve and finding an even balance between the single and dual learning cycles, striving to develop along sustainable paths (Argyris & Schön, 1978; 1996). ♦ Culture favoring technology management on sustainable bases (Almeida, 2006).

The conceptualization of this model encompasses the socio-technical approach that stresses the need for adopting and making compatible organizational and technological processes, as well as adaptive planning approaches that address planning as an ongoing learning process. It also considers elements of Ozbekhan's Normative Planning (1973) and the dual and single cycle organizational learning concepts (Argyris & Schön, 1978; 1996). From transition management literature, the model encompasses the understanding of the dynamics of technological transitions within a co-evolutionary and socio-technical perspective (Geels, 2004; 2005; 2007).

A description is given below of how companies can define their innovation strategies in relation to sustainable development, lining up with the principles and value of this new paradigm and then establishing and managing the R&D projects portfolios, extending their innovation capacities based on social, environmental and economic criteria, with a long-term view that extends beyond the 10-year horizon that is normally used by strategic planning processes. The organizational system in question is the technological system of the company, consisting of groups and units that share responsibilities for the same set of decisions related to the technological function of the organization (Friend, Power & Yewlett, 1974).

Figure 1 presents a graph showing the components of the proposed conceptual model and their inter-relationships.

Figure 1: Conceptual Model of Sustainable Innovation Management



The main blocks in this model are: ‘context’ (block 1), encompassing the environment outside the company and the corporate environment, within which the technology function is included; ‘strategic direction’ (block 2), which covers the corporate vision, mission, values and principles, strategic plan and business plants; ‘technological direction’ (block 3), that consists of the technology strategy, more specifically the long-term management and technology guidelines; ‘action’ (block 4) that corresponds to the R&D portfolio and innovation management; ‘consequences’ (block 5), reflecting the assessments of the level of accomplishment attained by the technology programs and projects (efficiency) and the economic, social and environmental impacts caused by the use of new technologies (efficacy). Four critical organizational elements are identified for bringing this approach into operation: leadership, strategic alignment of the technology (ellipse 6); single and double-loop learning (ellipses 7 and 8) and organizational culture (not shown in Figure 1, as this influences all the blocks and ellipses).

The ‘organizational context’ (block 1) may be divided into internal and external. The ‘external context’ refers to the social, political, economic and competitive setting within which the company operates, as well as the perception, action and construal of policies and events in the outside world, such as the impacts on the company of alterations in environmental laws. The ‘internal context’ is related to the organizational culture, structure and strategy, as well as the in-house political context that triggers the motivation for shifting to the sustainable mode (Pettigrew, 1987, 1992). Even with a context that demarcates or curtails the ‘strategic and technological directions’ and the ‘actions’ (blocks 2, 3 and 4, respectively), the company is still in a position to select its strategies provided that adequate controls are in place and the means are selected through which the desired outcomes can be attained.

The ‘strategic direction’ (block 2) covers the processes of drawing up corporate and business strategies. This is structured in two tiers: regulatory and strategic. At the regulatory level, the main activity is defining the ends, based on analyses of the values of the consequences, which may be determined as the probable outcomes of the actions under consideration (Ozbekhan, 1973) while the strategic level encompasses procedures to be selected, offering insights into the differences between the known options and their possible consequences. At this planning level, corporate and business strategies defined ‘what can be done’ based on the timeline and situation context.

The ‘technological direction’ (block 3) encompasses the strategic technology planning, including analyses of technological maturity, competitive impacts and competitive technology positioning (Roussel et al., 1991) as well as social and environmental impacts (Almeida, 2006). It adopts adaptive planning approaches, due to the high complexity of the social and technical sub-systems, basically grounded on the Innovatory Planning methodology proposed by Melo (1991), whose scope includes action research practices and the organizational learning approach (Argyris & Schön, 1978; 1996). In this block, the ‘space of action’ covers the total field of the decisions to be taken under the aegis of the corporate technology system (Friend, Power & Yewlett, 1974). This system consists of the groups and units working on researching, developing, upgrading, adapting and applying

technologies to the end-activities of the enterprise. As an open system, this in turn interacts with the other outside stakeholders, such as government entities, academic institutions, customers and suppliers.

Through demarcating the focus of the approach, the formation of the inter-organizational domain (Trist, 1976) may be supported through an appropriate networking technology, consisting of an 'articulative task' and an 'articulative tool' (Melo, 1977; 1991). In the conceptual model proposed here, there are two 'articulatory tasks': drawing up the technology strategies for the business areas based on analyses of the technological maturity and the competitive, social and environmental impacts of the technologies covered by the planning, and an action research project designed in keeping with the purposes and values of the sustainable mode. The 'articulative tool' may consist of standards and procedures adopted during the planning process and presented through the intranet portal of the company for communicating the technology strategies and other technologies supporting the implementation of the strategies, such as a Balanced Scorecard system, for example, focused on the technology function.

In order to ensure the convergence of stand-alone actions undertaken by autonomous entities, it is initially important to share prospects and values, creating the conditions for reflecting on the commonly-desired directions in the sustainable mode. In the model, the 'articulative agents' are committees set up by the decision-takers in the technology system, committed to the purposes and values of the sustainable mode, who nudge the members of the system towards the changes desired in each business area. The 'actor-networks' are inter-function technology intelligence networks that interconnect system managers and specialists with different views (R&D, market, process, engineering, intellectual property and prospecting), around the technological clusters or topics under analysis. In turn, these networks interact with representatives of the outside stakeholders.

The 'action' block is related to R&D and innovation management (block 5). This block is called the action structure, corresponding to the tactical technology planning level and the implementation of the R&D outcomes, meaning the dissemination of the technological solutions throughout the operations, services and products offered by the company (technological innovations). This block defines the criteria for selecting and ranking the priority of R&D projects, the R&D portfolios assembled to meet the objectives and comply with the guidelines of the 'technological direction' (block 4) as well as the R&D portfolio and technology innovation management actions as a whole, through to the phase when these new technologies are widely disseminated.

The 'consequences' (block 6) assesses the implementation level of the technology programs and projects, as well as the economic, social and environmental impacts caused by the use of these new technologies. In greater detail, the scope of the assessments in this block encompasses: measuring the implementation levels of the actions in terms of the established objectives (efficiency); corrections during the action implementation process (management shared among the technology system units); feedback through the single and dual learning cycles (ellipses 7 and 8 of Figure 1); noting convergences (peaks) and possible gaps between the expected and actual outcomes, analyzing their causes and implications; annual balance sheet showing the performance of the units in the system, focused on profitability, growth, social responsibility and environmental accountability (sustainable performance indicator system); assessment of the direct and indirect impact of the actions compared to the guidelines and objectives stipulated in the technology directions block (efficacy of the actions).

CONCLUSIONS

The case study, presented in previous work (Almeida & Melo, 2004), was object of a doctoral work at Pontifical Catholic University of Rio de Janeiro developed during the period from 2002 to 2005. It illustrates how action research posture, adaptive planning and transition management could help the focused company, particularly its technological sub-systems to establish and implement an integrative and learning-by-doing strategy for sustainable innovation management. These approaches also contributed to a better understanding of the organization, considering their change-oriented perspective and the flexibility they provide. In fact, they constituted a powerful means to reinforce active adaptation and learning, enhancing a process propitious for both social and technological innovation. Like many others action research projects, it is situationally unique, but there are elements in the methods used that can be replicated in the other referred areas, within different circumstances and subcultures.

The sustainable innovation model presented in this paper was developed, implemented and validated by a large-scale energy enterprise in Brazil. This model presents the following characteristics: (i) it can be tailored to the situations of other companies in different fields of business, through stressing a variables section with archetype sustainability criteria; on the other hand, it allows factors to be investigated that are specific to each organization, especially during the action phase, encompassing R&D processes and technology innovation

management; (ii) it is tailored to the multi-dimension and multi-level (individuals, groups and organizations) nature of analyzing the phenomena of sustainability and technological innovation, taking contextual (top-down) influences into account as well as (bottom-up) emerging processes; (iii) applicable to open, dynamic systems, it allows interventions at the strategic level while drawing up technology strategies with feedback for corporate strategic planning, as well as operating aspects that are focused more on R&D portfolio management at all phase; and (iv) it represents an organizational innovation in terms of the models described in the literature and the so-called best practices opted by companies with R&D and technological innovation capacities.

In terms of the outcome of its implementation in the Petrobras' technology system, important methodological advances are particularly noteworthy, acknowledged by its management staff involved in this process, rated as improvements over the practices adopted in the earlier technology management cycles of this company. These advances include: (i) mobilization of technology networks by business area, substantially shortening the analysis times and with closer integration among the participants; (ii) sustainability analysis of 44 technology clusters, including the environmental impacts and social contributions of the associated technologies, in addition to assessing their competitive impacts, as this is already being implemented throughout the entire Petrobras Technology System since 1996; and (iii) analysis of the criticality of some 508 technologies through analyzing their technological alignment with the Corporate Strategic Plan / 2015, and the level of effort required to develop them.

Although the conceptual model presented in this paper has been implemented and validated only at Petrobras, based on the above conclusions, it is believed that enterprises and in other fields of activity that are in the transition stage, moving towards sustainability, may also benefit through a better understanding of the social and environmental impacts of their technology-based activities, as well as the possibility of including social and environmental variables in their technology and innovation strategies.

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BOARD EFFECTIVENESS IN STRATEGY IMPLEMENTATION: A PRELIMINARY ASSESSMENT INSTRUMENT

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ABSTRACT

This paper presents the results of research that identified a set of factors which can contribute to the effectiveness of boards of directors in the management of strategic implementation. It also proposes a reference list of constructs and observable variables which can be used as an instrument to measure the extent to which such factors are present in a board of directors. Following more recent research strands on corporate governance and boards, we have focused on non-structural factors of board effectiveness in managing strategy implementation, related to cognitive, behavioral, work process and power dimensions. Such factors may enhance and complement the explanatory power of structural features of boards (such as board size and demographics) where the latter's effectiveness is concerned. Based on a review of the extant literature, three thematic areas were developed in the paper: board effectiveness, board involvement in strategic management, and board involvement in strategy implementation. From an analysis of the research in these areas, we identified seven major constructs of board effectiveness in strategy implementation: cohesiveness, presence of knowledge and skills, use of knowledge and skills, effort norms, cognitive conflict, task performance, and information architecture. Each of these factors was divided into sets of observable variables, which were then consolidated into an instrument - reference lists - with a view to helping scholars and practitioners in assessing how boards rank in these specific factors.

INTRODUCTION

“(The 2008 crisis) was a combined failure of corporate governance, of responsibility and accountability by banks and bankers, of credit rating agencies and of domestic and international regulatory authorities”.

Gordon Brown (2009), United Kingdom's Prime Minister

The world's major corporate governance codes and legislation hold boards of directors collectively responsible for the success of corporations. A prevailing view that boards occupy a central role in modern capitalism is shared by governments, shareholders, regulators, academics and society in general. As a consequence, pursuant to the 2008 global crisis, boards of directors are under severe pressure and scrutiny. The growing emphasis on compliance with regulatory requirements may have narrowed the boards' strategic perspective, reducing risk management activities to a defensive and non-strategic dimension (Kocourek, Van Lee, Kelly, & Newfrock, 2004).

The translation of strategic plans into actions is influenced by various factors. Nevertheless, boards are naturally distant from the strategy execution playfield (Mace, 1971; Tashakori & Boulton, 1983). Strategy execution decisions are usually made at several organizational levels away from the boards, in different subsidiaries and geographies. This is especially relevant in the context of global companies, as the actors involved in strategy implementation decisions are substantially influenced by different cognitive, behavioral,

political, environmental and social factors. Thus, it is important to understand how boards can ensure that key execution decisions are consistent with planned strategies with a view to adding value.

Several episodes of corporate governance failure have illustrated the boards' distance from the realities of strategy execution. As recently exemplified by international corporations such as Lehman Brothers and Aracruz Celulose (a global pulp and paper company with headquarters in Brazil), boards' work practices may not be effective enough to anticipate, assess and mitigate strategy execution risks.

Ensuring that corporate strategies are effectively implemented is a central management concern because strategy execution failures destroy firm value (Allio, 2005). A recent study performed by the consulting firm Booz & Company revealed that 60% of the value destroyed by firms in their sample resulted from strategic mistakes (Kocourek et al., 2004). Corporate decisions that are not consistent with strategy formulation do not necessarily result from poor governance, but there is a growing consensus that boards must be able to manage strategy implementation activities effectively (Schmidt & Brauer, 2006).

However, this subject has received sparse attention in the literature (Li, Guohui, & Eppler, 2008; Schmidt & Brauer, 2006). This may stem from a somewhat simplistic view on the part of some authors on strategy that considers implementation as a strategic afterthought (Siciliano, 2002). Although some scholars provided indications of how boards can work towards a sound strategic execution, few studies have analyzed these indications systematically to identify influencing factors. There are few integrated models upon which to develop propositions and base future empirical work on the subject. In our view, such a gap in the extant research on corporate governance is critical.

This paper presents the results of research that identified a set of factors which may affect the effectiveness of boards of directors in the management of strategy implementation. It also proposes an instrument which can be used to measure the extent to which such factors are present in a board.

Following a more recent line of research, as indicated by Johnson, Daily & Ellstrand (1996), we have focused on non-structural factors of board effectiveness in strategy implementation. Such factors relate to cognitive, behavioral, work process and power dimensions, and may enhance and complement the explanatory power of structural features of boards (such as board size and demographics) where the latter's effectiveness is concerned.

Based on a review of the literature, three thematic areas were developed in the paper: board effectiveness, board involvement in strategic management, and board involvement in strategy implementation.

We intend to contribute to the literature on corporate governance and board effectiveness in several ways. First, we attempt to expand the understanding of how boards can play strategic roles. Secondly, we present a set of constructs and observable variables that can be used in the formulation of theoretical propositions and empirical tests. Although the literature provides some characteristics of how boards may perform strategy implementation management tasks, no studies compiled such characteristics in order to define specific factors or constructs. In third place, we provide scholars and managers with an instrument – reference lists - that can be used to assess how boards rank in terms of specific features and work practices that may affect their performance in managing strategy execution.

Our research considered the following delimitations, here characterized. The level of analysis is the board of directors, understood as semi-autonomous organization structures with specific goals, shared among board members and aligned with corporate objectives. We focused on non-structural dimensions of board effectiveness, since the existing literature on corporate governance has numerous studies on structural and demographic features in detriment of behavioral, social and process dimensions (Amaral-Baptista & Melo, 2009; Huse, 2005; Huse, Minichilli, & Schøning, 2005; Macedo-Soares & Schubsky, 2010). Finally, our objective was not to formulate propositions on the nature of relationships among the identified constructs and strategy implementation, organizational performance or other dependent variable.

The paper is structured into six sections including this introduction. Section 2 presents definitions and contextualizes the research's thematic areas. Section 3 presents the research method. The constructs resulting from the research are presented in section 4. Section 5 contains a proposed instrument to measure these constructs. Section 6 concludes the paper.

DEFINITION AND CONTEXTUALIZATION OF THEMATIC AREAS OF RESEARCH

Three thematic areas were selected from the results of literature review: (1) board effectiveness; (2) board involvement in strategic management; and (3) board involvement in strategy implementation. We briefly discuss them next.

Board effectiveness

As important corporate assets (Maassen, 1999), effective boards may provide firms with a competitive edge by influencing organizational performance and creating value through better governance (Charan, 2005; Nicholson & Kiel, 2004). According to Barton & Wong (2006), the effectiveness of a board is related to a firm's cost of capital. A McKinsey & Company research, reported by the authors, revealed that institutional investors are willing to pay a 20-40% premium on stock of firms with effective boards. The notion that boards are by themselves a competitiveness factor has received growing support from different fields of research in corporate governance (Maassen, 1999).

However, defining and measuring board effectiveness is not a simple task (Allen, Renner, & English, 2004). Board effectiveness precedes and may exert influence on firm performance (Forbes & Milliken, 1999). Forbes & Milliken (1999) proposed that a board's effectiveness may be measured by its task performance, defined as the board's ability to perform its control and service tasks effectively.

Literature suggests that boards have four groups of tasks: monitoring, service, strategy and resource provision. Monitoring is a task supported by the agency theory framework (Fama & Jensen, 1983), related to risk management and shareholder wealth protection. The service task is grounded on stewardship theory (Donaldson & Davis, 1991), comprising advice and support to management (Lorsch & MacIver, 1989). The strategy task comprises activities ranging from strategic direction (Phan, 1998) to management of strategy implementation (Stiles & Taylor, 2001). The resource provision task relates to a board's ability to provide access to resources such as capital, relationships with stakeholders, experience and legitimacy (Ong & Wan, 2008).

Most board effectiveness models present in the literature comprise structural or non-structural dimensions. Structural dimensions relate to demographic board features such as board size, CEO-chairperson duality, director independence and director experience, among others. Albeit extensively studied, relationships among a board's structural characteristics and performance are mostly uncertain (Bhagat & Black, 1999) because non-structural intervening factors restrict direct associations among them (Finkelstein & Hambrick, 1996). Studies of non-structural factors are more recent in the literature, covering cognitive (Forbes & Milliken, 1999), behavioral (Huse, 2005), work process (Dulewicz, MacMillan, & Herbert, 1995; Huse et al., 2005) and power dimensions (Pettigrew & McNulty, 1995).

More recent board effectiveness models tend to employ structural and non-structural perspectives in a complementary approach. Such complementary models may be divided into two categories: process and mediation (Ong & Wan, 2008). Process models emphasize non-structural dimensions in an attempt to explain board effectiveness (Pettigrew, 1992). Mediation models of board effectiveness combine the approaches of structural and process models, by the assumption that there are contingent relations among a board's structure, processes and performance. Ong & Wan (2008) noted that mediation models follow a systems argument contained in input-process-output approaches, by which a board's structural features will influence its processes before results can be observed.

Board involvement in strategic management

Literature displays a growing consensus about the importance of boards' role in strategic management (Demb & Neubauer, 1990; Hoskisson, Hitt, Wan, & Yiu, 1999; Judge & Zeithaml, 1992; Pugliese et al., 2009; Sadtler, 1993; Zahra, 1990). Several codes of best practice in corporate governance recommend that boards emphasize strategy tasks. For example, the OECD Principles of Corporate Governance (2004) state that one of the key roles of boards is to guide and review corporate strategy. The United Kingdom's Combined Code of Corporate Governance (Financial Reporting Council, 2008) says that companies should be led by an effective board, collectively responsible for the firm's success and responsible for providing corporate leadership, for defining strategic objectives and for reviewing management performance.

There is also a growing body of empirical evidence supporting the involvement of boards with strategic management activities (Demb & Neubauer, 1992; Golden & Zajac, 2001; McKinsey & Company, 2006; Siciliano, 1990; Stiles & Taylor, 1993).

Boards are more actively involved in strategic management for a variety of reasons, such as higher legal exposure of directors, greater activism on the part of shareholders and other stakeholders, and threats of hostile takeovers (Judge & Zeithaml, 1992). However, their involvement in the strategic agenda is not always perceived as effective, due to impediments such as insufficiency of information (Nadler, 2004) and authority conflicts with managers (Mace, 1971).

The understanding of the multiple ways in which boards may address strategic issues is still incomplete (Hendry, Kiel, & Nicholson, 2009), particularly in the behavioral aspects of interactions between boards and management (Nadler, 2004). According to Maassen (1999), academic research has privileged studies of boards' supervisory roles of strategy development. In Charan's view (2005), boards are not supposed to lead the formulation of strategies, but must act decisively to ensure their consistency by means of robust work processes.

Board involvement in strategy implementation

Several definitions of strategy implementation can be found in literature. However, few of them simultaneously emphasize the roles of top management (Schaap, 2006), process perspectives (Hrebiniak, 2006), behavioral perspectives and environmental influence (Lehner, 2004). We built on the definition proposed by Li et al. (2008) in an attempt to include these aspects. Thus, strategy implementation is here defined as a dynamic, interactive and complex process, comprised of several decisions and activities carried out by boards, top management and employees, affected by interrelated internal and external factors, aimed to convert strategic plans into concrete actions so that strategic objectives can be met.

Although strategy formulation is a task of high complexity, making strategies work is even more complex (Hrebiniak, 2006). Strategic management deviations occur more frequently during implementation than in any other phase (Drew & Kaye, 2007). Thus, given the responsibilities of boards in strategic management, their involvement in strategy implementation management is critical (Brenes, Mena, & Molina, 2008) because planning and execution tasks are interdependent (Hrebiniak, 2006).

Some authors suggest that boards should expand their monitoring role to explicitly assess the determinants of corporate success and address strategy implementation inconsistencies (Charan, 2005; Schmidt & Brauer, 2006). By doing so, boards will trigger a positive dynamic of strategic interactions with the CEO and senior management, preventing strategic inertia and setting the agenda towards a sound implementation of strategic plans (Schmidt & Brauer, 2006). Thus, boards' involvement in strategy implementation is not only required by their responsibilities towards corporate success, but can also be a management instance of high value creation potential (Charan, 2005).

However, scholars' attention to boards' involvement in strategy implementation has been sparse. Recent literature displays four proposals for board involvement in strategy implementation. Donaldson (1995) developed a strategic audit tool for the use of boards. Its implementation should be carried out by a board's committee assigned to define and monitor strategy implementation performance criteria. The main objective is to embed a formal strategic monitoring mechanism within the organization's governance system. Siciliano (2002) developed a similar tool, employing a balanced scorecard methodology (Kaplan & Norton, 1992). Schmidt & Brauer (2006) conceptualized a strategic consistency construct. Strategic consistency was defined as the extent of alignment between resource allocation decisions and strategic plans. According to the authors, ensuring strategic consistency is a priority for boards.

Drew & Kaye (2007) also proposed a strategic assessment tool for use by boards. Two dimensions of management are proposed: strategy implementation and strategic risks. The first attempts to monitor and ensure that key initiatives defined at strategic formulation instances are implemented as planned. The second evaluates the extent of exposure to external factors which can potentially impact the firm's ability to reach strategic goals.

RESEARCH METHOD

The research method was based on a review of the pertinent literature, aimed to identify a set of constructs and observable variables which may affect the effectiveness of boards in the management of strategy implementation. Bibliographical research focused on the state of the art in the three thematic areas described in section 2.

In order to examine the literature and select the sources required for the bibliographical research, we followed a method outlined in Villas, Macedo-Soares & Russo (2008) with adaptations. Bibliographical sources were initially selected by structured searches to the EBSCOhost, ProQuest ABI, Business Source Premier,

SAGE, Sciencedirect, JSTOR, Wiley Interscience and Google Scholar databases. We searched for publications which simultaneously contained the keywords “board of directors” (or “board”) and “strategy implementation” (or “strategic execution” or “strategic implementation” or “strategy execution”). We also made searches with the keywords “board effectiveness”. Peer-reviewed articles from high impact factor journals were prioritized. We then searched for additional publications included in the references section of the articles selected initially. We also included seminal articles and articles in which major subjects include board effectiveness or board involvement in strategic management. Theses, dissertations, magazine and newspaper articles were included selectively. Editors’ letters, book reviews and non-indexed academic papers were excluded.

The limitations of the research method are as follows. We primarily collected publications from the sources contained in the mentioned databases. Thus, some important viewpoints in strategy implementation and boards of directors contained in academic books and essays may have been ignored. However, some of the publications selected use concepts from such books and essays, mitigating this limitation at least partially. In addition, the search method using keywords may have omitted important articles. We believe that the subsequent inclusion of referenced articles and seminal publications helped mitigate this problem.

DEFINITION OF CONSTRUCTS

We present next the constructs that were identified as a result of the research. We attempt to present operational definitions for each of them, as well as indications of related operational variables present in the literature. Seven major constructs of board effectiveness in strategy implementation were identified: cohesiveness, presence of knowledge and skills, use of knowledge and skills, effort norms, cognitive conflict, task performance, and information architecture.

Cohesiveness

Following Summers, Coffelt & Horton (1988), cohesiveness is defined as the extent to which different organizational actors are attracted to each other and motivated to stay in an organization. Cohesiveness was previously proposed by Forbes & Milliken (1999) as a factor of a board’s effectiveness.

Cohesiveness represents the ability of board directors to work together (Ong & Wan, 2001). Because board tasks are complex and require high degrees of interaction, communication and deliberation, directors must have sufficient interpersonal cohesiveness to execute them well (Forbes & Milliken, 1999). An effective board is a social system in which trust is built by means of openness to diversity of thought, willingness of all members to contribute and ability to say what they think (Huse et al., 2005). These features are especially important in the context of organizations such as boards. Since most boards meet periodically, their performance may be impaired by low levels of cohesiveness because the nature of relationships among directors is typically weak (Park, 1995).

O’Reilly, Caldwell & Barnett (1989) suggested that a board’s effectiveness in strategy tasks is positively related to social integration of directors and consensus. Cohesive boards are expected to display higher levels of cooperation, communication and identification, thus contributing to a better implementation of decisions (Guth & MacMillan, 1986).

Excessive degrees of cohesiveness may be detrimental to a board’s effectiveness in some circumstances (Forbes & Milliken, 1999). A highly cohesive board may be distracted by a proliferation of interpersonal exchanges and by groupthink (Mullen, Anthony, Salas, & Driskell, 1994). Thus, according to arguments of Janis (1982) and Forbes & Milliken (1999), the optimal functioning of a board in decision making tasks may happen at intermediate levels of cohesiveness. In a different line of reasoning, Byrne (1997) argues that groupthink is more prone to arise in highly cohesive groups in which members display low cognitive conflict; that is, where members tend not to disagree on viewpoints and opinions (cognitive conflict is further described as a construct in section 4.5). Thus, effective boards may be characterized by high cohesiveness and high cognitive conflict.

Presence of knowledge and skills

Presence of knowledge and skills is defined as the extent to which the knowledge and skills that are required for a board to perform its strategy and control tasks effectively are collectively present in a board. The fact that a given set of knowledge and skills is available in a board does not mean that it will be ultimately used. Thus,

following Forbes & Milliken (1999), use of knowledge and skills is defined as a separate construct (section 4.3).

Knowledge and skills relevant to boards are classified by Forbes & Milliken (1999) into two dimensions: functional and organization-specific. Effective boards require that directors have a specific set of functional skills or relationship skills with external networks to obtain information and analyze business issues (Ancona & Caldwell, 1988). Organization-specific knowledge and skills relate to the possession of detailed information about the organization and to a deep understanding of operations and internal management issues (Forbes & Milliken, 1999).

Directors must possess explicit and tacit knowledge of internal operations in order to make consistent strategic decisions (Drew & Kaye, 2007; Nonaka, 1994). As an example, to make substantiated strategy implementation decisions in the context of a merger or an acquisition, boards need to have a detailed understanding of how the organizations involved may leverage each other's resources (Farjoun, 1994).

Knowing the external environment in which a firm operates is also critically important (McGrath, MacMillan, & Venkataraman, 1995). To perform its strategy tasks effectively, boards must have a deep knowledge of the industry, of the competitive scenario and of environmental influences that may interfere on the focal organization's strategic formulation and implementation.

Use of knowledge and skills

As mentioned in section 4.2, the ability to use a given set of knowledge and skills is not necessarily related to its presence in a board. Use of knowledge and skills is operationally defined as a board's ability to activate, mobilize and employ the existing inventory of knowledge and skills in order to perform its tasks (Forbes & Milliken, 1999).

The construct relates to behavioral and social dimensions of a board's ability to cooperate. It refers to the work processes by which contributions of individual directors are coordinated, and not to the contents of the contributions. In order for boards to perform strategic tasks effectively, robust processes must be in place to integrate the existing functional, organization-specific and external knowledge which is available at individual director level (Forbes & Milliken, 1999), because individual knowledge and experience may benefit other directors and the board as a whole (Carlson, 1998).

In order to use their knowledge and skills, directors must be capable of influencing other directors. Huse et al. (2005) identified that some directors with high influence in discussions may not necessarily possess the knowledge and skills needed to perform their duties adequately. Thus, the authors suggest that influence and knowledge should be simultaneously present in the characteristics of an effective director.

Effort norms

The use of effort norms as a construct which may affect board effectiveness was previously suggested by Forbes & Milliken (1999). Following Wageman (1995), effort norms are a group-level construct defined as the shared beliefs held about the degree of effort that each individual should dedicate to a given task.

Effort norms may be formal or informal. In the context of boards, effort norms may include expectations about values, ethical norms, availability and use of time, extent of authority to evaluate and make strategy implementation decisions independence, and the quality of a board's contribution to strategy implementation tasks (Huse et al., 2005).

Prior studies show that boards perform their tasks with different levels of participation and contribution (Forbes & Milliken, 1999). Effort norms may influence individual behavior, especially in interdependent workgroups such as boards (Forbes & Milliken, 1999). Effort norms should increase the quantity and quality of directors' efforts (Wageman, 1995), thus contributing to improve the performance of a board. According to Huse et al. (2005), board that display high expectations about the quality of individual directors' effort and interventions tend to perform better in strategy implementation management tasks.

Cognitive conflict

Drawing on Ong & Wan (2001) and Forbes & Milliken (1999), we employ cognitive conflict as a construct of board effectiveness in strategy implementation. According to Jehn (1995), cognitive conflict is defined as disagreements about the content of tasks being performed, including differences of ideas, perspectives and

opinions, as well as disagreements on definitions of workgroup or individual responsibilities. Cognitive conflict may be evidenced by different characterizations of problems and by contrasting points of view about possible responses to problems (Dutton & Jackson, 1987).

As interdependent workgroups that deal with complex and ambiguous tasks, boards are especially subject to cognitive conflict (Forbes & Milliken, 1999). The presence of cognitive conflict in boards may have a positive or negative impact in the management of strategy implementation. On the positive side, disagreements in boards may be conducive to richer and deeper discussions of strategic issues (Forbes & Milliken, 1999). They may lead to an increase of a board's critical investigation ability. This ability may, in turn, induce management to a need to justify, reflect upon and possibly modify their position regarding strategic matters. A higher degree of cognitive conflict may also lead boards to consider an increased number of alternative courses of action. Thus, boards may benefit from a variety of points of view which will potentially enrich analyses and decision making.

However, excessive levels of cognitive conflict may have dysfunctional affective consequences. In high degrees, cognitive conflict may trigger negative emotions which may impair the quality of interactions, leading directors to manifest lack of interest and commitment to the board (Mace, 1971). These affective conflicts relate to interpersonal animosity issues, which may negatively affect a board's collective performance (Ong & Wan, 2001).

Task performance

Task performance is defined as the extent to which boards can perform their tasks effectively (Forbes & Milliken, 1999).

According to Park (1995) and Drew & Kaye (2007), boards that display high performance in strategy implementation tasks have a clearly defined mandate and specific processes to enable their timely and thorough intervention upon the factors that are driving poor firm performance. Other practices noted by them are establishing access paths to managers to gain a "real-life" perspective of barriers to strategy implementation, and assigning responsibility at board level for reviewing and approving high-relevance resource allocation decisions.

To be able to manage strategy implementation issues, boards should take an active part in strategy formulation and in the definition of strategy implementation priorities (Li et al., 2008; Siciliano, 2002).

In order to gain added insight on strategy implementation progress and barriers, boards may delegate specific tasks to committees or external consultants, enabling analytical depth and a more efficient use of board time.

Information architecture

One of the reasons why boards may fail to manage strategy implementation is difficulty to gain access to relevant information (Siciliano, 2002). Boards have specific information needs in order to understand the key issues of strategy implementation, but the amount and nature of information available to them may result in a dysfunctional involvement in such issues. Excessive detail may entangle boards in minutiae and non-strategic discussions. Executive presentations prepared by the CEO may narrow a board's span of intervention.

Although a review of financial statements may provide insights as to why a given strategic decision has failed, such information may not be enough to provide boards with a clear understanding of operational drivers of strategy implementation deviations. In addition, some strategic decisions that yield high short-term financial returns may lead to future negative consequences such as loss of market share and customer dissatisfaction, eroding firm value.

Thus, boards should set up specific sessions to manage the progress of the main events of strategy implementation, supported by task-specific tools and metrics (Donaldson & Davis, 1991; Drew & Kaye, 2007; Park, 1995; Schmidt & Brauer, 2006; Siciliano, 2002; Steinberg & Bromilow, 2000).

Siciliano (2002) elaborated on the importance that boards be proactive in defining their specific information needs, in line with strategic management objectives. Siciliano and Drew & Kaye (2007) highlighted the need for boards to prioritize the strategic management dimension in setting their agendas and information needs, as a means to include strategic management in their scope of intervention and decision making. In her case study, Siciliano identified the following information dimensions: financial, service level (customer satisfaction, customer retention, volume of transactions, processing times), physical activity of products and services, human resources training and development, status of progress of key projects and strategic initiatives.

Agenda-setting should be negotiated between the board and the CEO (Drew & Kaye, 2007), and should not only comprise topics but also the formats, scope and depth of information to be presented to the board.

REFERENCE LISTS

With a view to helping scholars and practitioners interested in assessing the performance of boards in factors which may affect the management of strategy implementation, in this section we present reference lists that might be quite useful to that purpose (Table 1).

In line with our research's delimitations, the reference lists concentrate attention on the most relevant non-structural constructs which may complement the explanatory power of structural features of boards in the strategy implementation management dimension.

The reference lists include sets of related observable variables and metrics as identified in the review of literature. The proposed metrics may be operationalized in a Likert-type scale. Metrics for expected positive implications are shown in bold type.

The reference lists can be used in several ways. Researchers can develop tools such as questionnaires to capture data to measure the extent to which the compiled factors are present in a board. Boards may employ them in self-assessment sessions to gain valuable insight on behaviors and work practices that need most attention in order to improve the quality of their intervention in strategy execution. External consultants interested in board effectiveness practices may use them in a similar manner.

Table 1 – Reference lists - constructs, observable variables and metrics

Construct: 1. COHESIVENESS		
Observable variables	Metrics	References
1.1. Joint work ability	1.1.1. High/Low	Ong & Wan (2001)
1.2. Openness to diversity of viewpoints and opinions	1.2.1. High/Low	Huse et al. (2005)
1.3. Willingness of directors to contribute	1.3.1. High/Low	Huse et al. (2005)
1.4. Interpersonal attraction among directors	1.4.1. High/Low	Forbes & Milliken (1999)
1.5. Social integration among directors	1.5.1. High/Low	O'Reilly et al. (1989)
1.6. Consensus	1.6.1. High/Low	O'Reilly et al. (1989)
1.7. Feedback and help from other directors	1.7.1. High/Low	Shanley & Langfred (1998)
1.8. Groupthink	1.8.1. High/Low	Mullen et al. (1994)
1.9. Commitment to implementation of decisions	1.9.1. High/Low	Isabella & Waddock (1994)
Construct: 2. PRESENCE OF KNOWLEDGE AND SKILLS (K&S)		
2.1. Management K&S	2.1.1. High/Low	Forbes & Milliken (1999)
2.2. Finance and accounting K&S	2.2.1. High/Low	Forbes & Milliken (1999)
2.3. Marketing K&S	2.3.1. High/Low	Forbes & Milliken (1999)
2.4. Law K&S	2.4.1. High/Low	Forbes & Milliken (1999)
2.5. Strategic perception K&S	2.5.1. High/Low	Dulewicz et al. (1995)
2.6. Analytical thinking K&S	2.6.1. High/Low	Dulewicz et al. (1995)
2.7. Orientation to results K&S	2.7.1. High/Low	Dulewicz et al. (1995)
2.8. Relationship with external networks K&S	2.8.1. High/Low	Dulewicz et al. (1995)
2.9. Firm-specific operational and management issues K&S	2.9.1. High/Low	Forbes & Milliken (1999); Nonaka (1994); Drew & Kaye (2007)
2.10. Customer needs K&S	2.10.1. High/Low	McGrath et al. (1995)
2.11. Sources of business risk K&S	2.11.1. High/Low	McGrath et al. (1995)
2.12. Impediments to product/service quality K&S	2.12.1. High/Low	McGrath et al. (1995)
2.13. Industry and competitive scenario K&S	2.13.1. High/Low	McGrath et al. (1995)
Construct: 3. USE OF KNOWLEDGE AND SKILLS (K&S)		
3.1. Coordination of individual directors' contributions	3.1.1. Effective/ Ineffective	Carlson (1998)
3.2. Congruency between directors' K&S and responsibilities/tasks	3.2.1. High/Low	Forbes & Milliken (1999)
3.3. Directors' ability to exercise influence on discussions	3.3.1. High/Low	Huse et al. (2005)
3.4. Board's ability to mobilize and employ available K&S	3.4.1. High/Low	Forbes & Milliken (1999)
Construct: 4. EFFORT NORMS		
4.1. Similarity of expectations about the quality, intensity and depth of directors' intervention and contribution	4.1.1. High/Low	Forbes & Milliken (1999)
4.2. Similarity of understanding of the board's role as final decision maker	4.2.1. High/Low	Huse et al. (2005)
4.3. Understanding of the boards' role in ensuring sound strategy implementation	4.3.1. Uniform/Non uniform	
4.4. Similarity of expectations about the time directors devote to their board duties	4.4.1. High/Low	Wageman (1995)
4.5. Similarity of understanding of directors' independence	4.5.1. High/Low	Huse et al. (2005)
4.6. Directors' time dedicated to perform tasks	4.6.1. Sufficient/Insufficient	Lorsch & MacIver (1989)
4.7. Uniformity of directors' time dedication to their duties	4.7.1. High/Low	Forbes & Milliken (1999)
4.8. Previous preparation for board discussions	4.8.1. Sufficient/ Insufficient	Drew & Kaye (2007); Mace (1971); Park (1995)
Construct: 5. COGNITIVE CONFLICT		
5.1. Diversity of viewpoints and opinions among directors	5.1.1. High/ Low	Jehn (1995)

5.2. Differences of personality among directors	5.2.1. High/ Low	Huse et al. (2005)
5.3. Interpersonal animosity and tension among directors	5.3.1. High/ Low	Ong & Wan (2001)
5.4. Disagreements among directors about the content of tasks being performed	5.4.1. High/ Moderate/ Low	Jehn (1995)
5.5. Openness to deal with conflicts	5.5.1. High/ Low	Jehn (1995)
5.6. Conflict avoidance posture	5.6.1 High/ Low	Jehn (1995)
Construct: 6. TASK PERFORMANCE		
6.1. Access to managers and employees to identify strategy implementation issues	6.1.1. High / Low	Drew & Kaye (2007)
6.2. Review and analysis of key resource allocation decisions	6.2.1. Effective/ Ineffective	Drew & Kaye (2007)
6.3. Specific review sessions on implementation of planned strategies	6.3.1. Sufficient/ Insufficient	Drew & Kaye (2007)
6.4. Specific strategy review and learning sessions	6.4.1. Sufficient/ Insufficient	Drew & Kaye (2007)
6.5. Engagement of external consultants to subsidize strategy implementation analyses	6.5.1. High/ Low	Drew & Kaye (2007)
6.6. Engagement in strategy formulation	6.6.1. High/ Low	Siciliano (2002); Li et al. (2008)
6.7. Robustness of strategy implementation metrics employed by the board	6.7.1. High/ Low	Steinberg & Bromilow (2000)
6.8. Involvement in key human resources development reviews	6.8.1. High/ Low	Hrebiniak (2006)
6.9. Timeliness and consistency in addressing poor firm performance issues	6.9.1. High/ Low	Park (1995)
6.10. Board's authority to monitor and enforce strategy implementation plans	6.10.1. High/ Low	Park (1995)
6.11. Robustness of strategic risk management tools employed by the board	6.11.1. High/ Low	Park (1995); Donaldson (1995); Siciliano (2002); Schmidt & Brauer (2006); Drew & Kaye (2007)
6.12. Timeliness and consistency in addressing resource allocation inconsistencies vis-à-vis planned strategies	6.12.1. High/ Low	Schmidt & Brauer (2006)
Construct: 7. INFORMATION ARCHITECTURE		
7.1. Scope and depth of information sets provided to directors	7.1.1. Excessive/ Adequate/ Insufficient	Drew & Kaye (2007)
7.2. Authority to define information needs and dimensions	7.2.1. High/ Low	Drew & Kaye (2007)
7.3. Sufficiency of non-financial/operational information, dimensions and metrics analyzed by directors	7.3.1. Sufficient/ Insufficient	Drew & Kaye (2007)
7.5. Use of board-specific assessment/measurement tools to assess strategy implementation progress	7.4.1. Yes/ No	Siciliano (2002)
7.5. Ability to define board meetings' agenda – topics, scope, format of information	7.5.1. High/ Low	Drew & Kaye (2007)

DISCUSSION AND CONCLUDING REMARKS

In spite of the growing emphasis on the importance of corporate governance to ensure that strategic objectives are met, the proposition of tools that may help understand how boards can effectively perform this role has received limited attention.

With basis on a review of the literature on three thematic areas – board effectiveness, board involvement in strategic management, and board involvement in strategy implementation –, we identified seven key factors or constructs of board effectiveness in strategy implementation: cohesiveness, presence of knowledge and skills, use of knowledge and skills, effort norms, cognitive conflict, task performance, and information architecture.

We also identified several related observable variables and metrics to draft reference lists; that is, an instrument to support analyses of how boards of directors measure in each of the factors. To our knowledge, no previous studies proposed a similar approach and tools to assess non-structural factors of board effectiveness from the perspective of strategy implementation.

We suggest that the proposed instrument be applied by boards concerned with the issue of strategy implementation. By using this instrument as a checklist, scholars, board members and practitioners may gain additional insights into the non-structural factors that affect the quality of board performance, complementing the structural dimensions that are usually employed to assess board effectiveness.

As to future research, we intend to apply and validate empirically these findings and future analytical frameworks in companies with multinational/global operations whose boards operate out of different geographies, in an attempt to compare and understand how the non-structural characteristics and practices of these boards may affect their effectiveness in managing strategy implementation.

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CROSS-CULTURAL LEADERSHIP STYLES

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ABSTRACT

This paper contributes to the social constructionist view of leadership (Alverson & Karreman, 2000; Fairhurst, G., 2007, 2009) and studies how leadership is perceived and reenacted in different cultures. The study uses a communication style oriented measure of leadership attribute preference based on six global leader behaviors identified by the Global Leadership and Organizational Behavior Effectiveness (GLOBE) Research Program (House et al, 2004). It examines preferences for leadership styles across four different cultures, U.S., Japan, Korea, and China and investigates team members' satisfaction with the group decision-making process in homogenous versus heterogeneous groups.

INTRODUCTION

Views of the importance and value of leadership vary across cultures. For example, the status and influence of leaders vary considerably as a result of cultural forces (House, Wright, & Aditya, 1997). Still much remains to be understood as to the way in which culture influences leadership and organizational processes. To what extent do cultural forces influence the expectations that individuals have for leaders and their behavior, for instance? What principles of leadership and organizational processes transcend cultures? In an effort to answer these questions, the Global Leadership and Organizational Behavior Effectiveness (GLOBE) Research Program collected data from about 17,000 managers from 951 organizations in 62 societies around the world (House et al, 2004). That project identified six global leader dimensions: Charismatic/value-based leadership, team-oriented leadership, participative leadership, humane-oriented leadership, autonomous leadership and self-protective leadership.

Our study builds on this earlier research and uses global leadership dimensions identified by GLOBE, to develop a communication style-oriented measure of leadership attribute preference. Our paper contributes to the social constructionist view of leadership (Alverson & Karreman, 2000a; Fairhurst, G., 2007, 2009). From this perspective, leadership is viewed in the context of what leaders do and is thus discursive in nature. According to Robinson (2001:93), "leadership is exercised when ideas expressed in talk or actions are recognized by others as capable of progressing tasks or problems which are important to them." Whereas the social constructionist perspective of leadership has gained ground in management communication studies, there has been little or no research done in the area of discursive leadership across cultures. Our study is an attempt to fill in this gap by examining how leadership is constructed, perceived and reenacted discursively in different cultures.

Whereas GLOBE studies contributed to our understanding of the cultural variation in leadership attributes, this approach goes further and deeper by examining leadership from the point of view of constructing and reenacting leadership discursively. By identifying the characteristics and ways of how leadership exhibits itself in talk, it not only informs us of what leaders do and how they act in different cultures, but also prepares us to engage in constructing leadership in a foreign setting and informs us about how to do it successfully. It's the "doing" part of leadership that separates our research from the previous studies since we see leadership as something that gets constructed in talk and is therefore a skill that can be learned, practiced, and exercised in different contexts. It is thus different from cognitive categories or mental models used in the social cognitive literature to define leadership. As business is becoming more global and homogenous work places are "a thing of the past", this

knowledge is meant to inform and empower anyone who is in the position of managing diverse teams or managing teams in a foreign context.

RESEARCH QUESTIONS

The GLOBE studies identified six leadership dimensions: Charismatic/Value-based leadership, Team Oriented leadership, Participative leadership, Autonomous leadership, Humane-Oriented leadership, and Self-Protective leadership (House et al, 2004). The six leadership dimensions were then measured as to their preferences in each of the 10 cultural clusters previously identified by the GLOBE team's research (Latin America, Anglo (U.S., Australia, Great Britain, Canada, South Africa), Latin Europe (Italy, Portugal, Spain, France, French-speaking Switzerland, Israel), Nordic Europe, Germanic Europe, Confucian Asia, Sub-Saharan Africa, Middle East, Southern Asia, and Eastern Europe). Of the six global leadership dimensions the two most highly ranked across all cultural clusters were the Charismatic/Valued-based and Team-Oriented dimensions. Significantly lower were Participative and Humane-Oriented. The lowest ranked were Autonomous and Self-Protective (House et al, 2004). Anglo cultures ranked highest on Charismatic/Value-based culturally endorsed implicit leadership theory (CLT) dimension, followed by Team Oriented and Participative dimensions. Confucian Asia cluster ranked highest on Charismatic/Value based CLT leadership dimension followed by Team oriented and Humane Oriented leadership dimensions (Dorfman, Hanges, Brodbeck, 2004).

Our study set out to do a more fine-grained analysis of the preferences for the leadership dimensions identified in the GLOBE study, focusing more narrowly on participants from the Anglo and Confucian Asia clusters, namely the U.S. and China, Japan and Korea. Instead of using CLT leadership profiles that are derived from the concept of shared mental models, we developed a measure of leadership that was conceived by looking at how these leadership dimensions would manifest themselves in specific communication moves. In other words, we were interested in discursive practices in specific cultures and contexts. Our goal was (1) to identify whether those from countries within the Confucian Asia cluster had preferences for and tended to exhibit different communication leadership styles that their U.S. counterparts and (2) to see if team members from different cultural groups experience different degree of satisfaction with the groups process and different degrees of perception of being included and valued in the group decision-making process.

METHOD

In order to answer our first research question, we used the six leadership dimensions identified by the GLOBE studies - Charismatic/Value-based leadership, Team Oriented leadership, Participative leadership, Autonomous leadership, Humane-Oriented leadership, and Self-Protective leadership (House et al. 2004) – to develop a communication based measure of leadership. Based on the definition of these six global leader behaviors (Dorfman, Hanges, Brodbeck, 2004) we derived five communication styles that we used to measure leadership. We collapsed two separate GLOBE categories, Team Oriented and Participative leadership, into one category “Involved other in decision-making process” based on the communicative moves that the leadership style would exhibit. The five communication styles then included: (1) Decisive and task oriented; (2) Involved others in decision making process; (3) Modest, compassionate, and supportive; (4) Independent and self-reliant; (5) Status-conscious and procedural.

This measure was used to perform a more fine-grained analysis of the preferences for the leadership dimensions identified in the GLOBE study, focusing more narrowly on participants from the Anglo and Confucian Asia clusters, namely the U.S. and China, Japan and Korea. Our goal was to begin to identify whether those from countries within the Confucian Asia cluster had preferences for and tended to exhibit different leadership dimensions and how this might affect satisfaction and feelings of inclusion in the group.

In order to measure satisfaction and feelings of inclusion we asked participants to complete a 12-question survey at the end of the simulation. Questions were intended to measure the participants' attitudes about the group experience in two areas, their satisfaction with the group decision-making process (an outward measure – orientation towards other group members) and their perceived sense of inclusion and value in the process, (an inward measure - orientation towards “self.”) Participants were asked to rate their experiences in these areas, using a seven-point Likert scale, ranging from “Strongly agree” to “Strongly disagree.”

Our data set consisted of 7 groups, five members each, of business professionals who were native speakers of English ($N=10$) and native speakers of East Asian languages ($N = 25$) enrolled in an MBA program at a private university in Southern California. The study used graduate students, who had all worked in the professional workplace for at least two years, since some studies have shown that differences exist between students and professionals. There were two groups of Chinese, Korean, and U.S. participants, and one group of Japanese participants. The participants took part in a team-decision making simulation called Sub-Arctic Survival, in which they act as if they are survivors of a plane crash and must come to a decision about the items from the wreckage that they will take with them to survive. The exercise was videotaped in an experiential learning lab by professional technicians. The meetings were 20 minutes in length and were held and videotaped in an experiential learning laboratory equipped with professional facilities and technicians. The meetings were held in English, and the videotapes were then transcribed. The transcripts were then coded for analysis. At the end of the simulation, the participants were asked to complete a survey asking them to identify the leader of the groups and to rank the communication based leadership attributes in order of importance.

RESULTS

The analysis of communication-based measure to identify leadership styles using the survey mechanism revealed the following results. Two English speaking teams ($N=10$) ranked “decisive and task-oriented” as the most important characteristic of a group leader. The communication style that “involved others in decision-making process” was ranked second and “modest, compassionate, and supportive” ranked third in terms of being important for a leader.

Two Chinese teams ($N=10$) ranked “status-conscious and procedural” as the most important attribute of a leader. The communication style that “involved others in decision-making process” and being “decisive and task-oriented” received a split ranking of second and third most important characteristic.

Two Korean groups ($N=10$) identified the style that “involved others in decision-making process” as the most important characteristic of a leader. “Decisive and task-oriented” was ranked second and was followed by “status-conscious and procedural” which was ranked third in terms of its importance.

We surveyed only one Japanese team ($N=5$) which produced the following results: “modest, compassionate, and supportive” was ranked as the most important characteristic of a leader. The communication style that “involved others in decision-making process” and being “decisive and task-oriented” was ranked as the second most important characteristic.

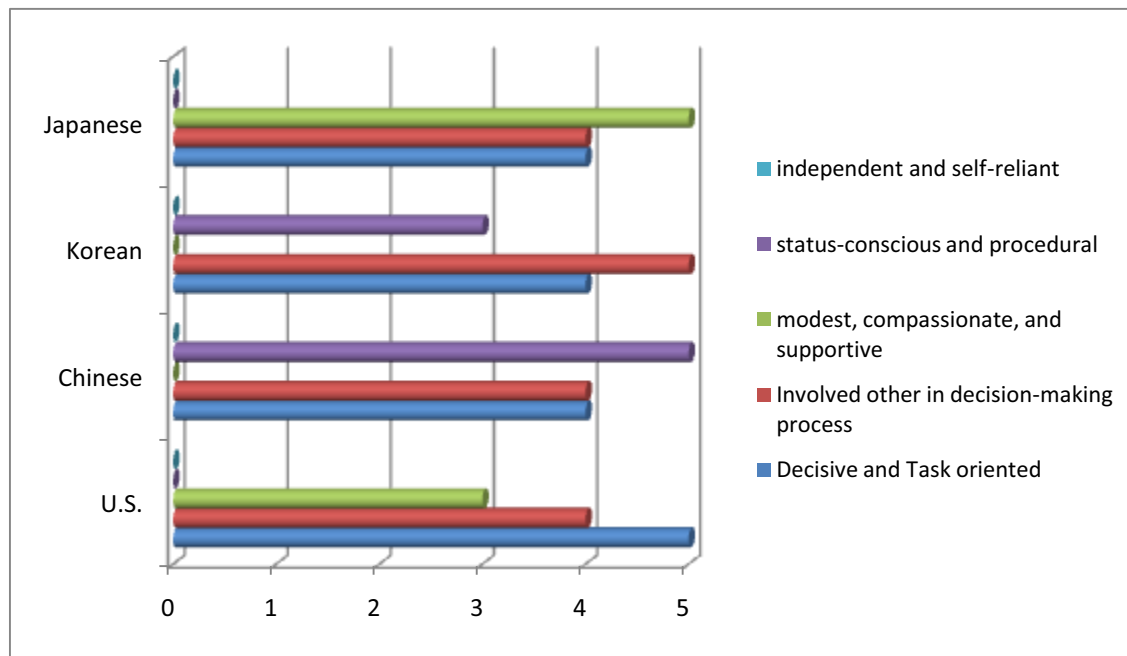
The results are reproduced below in Figure 1.

It is interesting to note that the characteristics of being “decisive and task oriented” and “involving other in decision-making process” were displayed across all cultural groups; however, the differences emerged across cultures in the predominant features of “doing leadership.” Whereas the U.S. team members identified “decisive and task oriented” as the most important characteristic of a leader, the other cultures listed it as second in importance. Japanese valued modesty, compassion, and support over being decisive and task oriented, Koreans identified “involving other in decision-making process” feature as the most important attribute of a leader whereas Chinese valued “status conscious and procedural” style the most.

In order to answer our second research question, if team members from different cultural groups experience different degrees of satisfaction with the groups process and different degrees of perception of being included and valued in the group decision-making process we distributed and analyzed a 12-question survey. Participants were asked to rate their experiences in these areas, using a seven-point Likert scale, ranging from “Strongly agree” to “Strongly disagree.” The results of our attitudinal survey indicate that all group members exhibited a high degree of satisfaction in both areas, their satisfaction with the group decision-making process (an outward measure – orientation towards other group members) and their perceived sense of inclusion and value in the process, (an inward measure - orientation towards “self.”) except for the Japanese group. Their satisfaction rate was markedly lower than all the other groups. Since we only had one Japanese group in our data set, it is

necessary to look at additional data to make any generalizations about how and why Japanese satisfaction rates were lower and whether it can be attributed to group dynamics.

Figure 1. Cross-cultural comparison of communication-based leadership styles.



DISCUSSION

In the case of U.S. groups, our findings are consistent with the GLOBE study that shows the Anglo cluster's orientation towards decisive, team-oriented leadership. However, whereas the GLOBE study showed that Confucian Asian cluster preferred charismatic/value based leadership followed by team oriented leadership, our findings revealed significant differences among the Confucian Asia cluster in terms of which leadership style they found the most important as measured by communication-based model of leadership. While they all identified "decisive and task oriented style" and "involving other in decision-making process" as second or third most important characteristic of a leader, they differed significantly in the area of their most important leader characteristic. Japanese valued modesty, compassion, and support over being decisive and task oriented, Koreans identified "involving other in decision-making process" feature as the most important attribute of a leader whereas Chinese valued "status conscious and procedural" style the most. Interestingly, the dominant dimension of the Chinese groups was "status conscious and procedural" even though this dimension is the least favored among the Confucian Asia cluster of all leadership dimensions identified by GLOBE.

Whereas our study of homogeneous teams revealed that with the exception of the Japanese group, team members reported high degree of satisfaction with the decision-making process and their perceived value and inclusion in the decision-making process, these findings contrast sharply with the findings in our previous study that looked at heterogeneous groups (Aritz, J & Walker, 2010a). In that study we analyzed decision-making meetings across groups of different cultural composition, in particular, teams consisting of U.S.-born team members and foreign-born speakers of East Asian descent using the same simulated decision-making exercise. All members of heterogeneous groups reported a high degree of satisfaction with the group process, and we didn't find any statistically significant differences between U.S. team members and members of East Asian descent.

However, in response to questions designed to measure their perceived sense of inclusion and value in the process (an inward measure – orientation toward "self"), East Asian language speakers reported that they did not feel as included, valued, or supported as their American counterparts. Their responses to the following three

questions were significantly lower on seven-point Likert scale, ranging from “Strongly agree” to “Strongly disagree” than those of U.S.-born native English speakers: “I was included in the group discussion and decision making” ($p=.0001$); “I was valued for my contributions to the group discussion and decision making” ($p=.0001$); “My group members supported me and my ideas” ($p=.0001$). U.S.-born native English speakers and East Asians did not produce statistically significant responses to questions designed to measure their overall satisfaction with the group decision-making process (an outward-measure – orientation towards other group members).

These results make us conclude that different preferences for leadership styles across cultures are bound to result in different communication styles that manifest themselves in different cultural preferences for leading a group. Our satisfaction survey from mixed groups shows that these different expectations of what the leader should do produce varying degrees of satisfaction and a sense of inclusion in the group decision-making process.

In addition, our previous analysis of heterogeneous teams showed that U.S.-born native speakers of English were contributing and participating more than native speakers of East Asian languages when placed in mixed groups (Aritz, J. & Walker, 2010b). In that study we used interaction analysis to look at member participation in decision-making meetings. Interaction analysis is a quantitative method of analysis that analyzes the frequency and types of verbal interaction (Fairhurst & Cooren, 2004). The study used interaction analysis and focused on a turn as the main unit of analysis to study how contribution changes when members from U.S. culture and East Asian cultures work in homogenous versus heterogeneous teams. Member contribution was measured by counting a number of turns taken, a number of words spoken, and average turn length. We measured member participation by looking at turn-taking strategies. We tracked the number of overlaps, backchannels, and latching. The transcripts were coded for analysis in these six areas. We did not include interruptions in our analysis, since we found these to be essentially non-existent (Walker & Aritz, 2007).

To analyze the coded results, we used a heteroscedastic rank-based nonparametric test that allows tied values (Brunner et al., 1997). This method of analysis was chosen because it offers better control and fewer, if any assumptions, about the shapes of the underlying population distributions given our relatively small sample sizes. The more traditional ANOVA/ANCOVA tests are parametric tests, which fail when the group distributions are non-normal or when sample sizes are too small. For the advantages of nonparametric tests, see Siegel and Castellan (1988, p. 35).

As the results in Table 2 below indicate, differences in almost all areas of analysis were statistically significant. More specifically, it indicates that in mixed groups U.S.-born native speakers of English were contributing and participating more than native speakers of East Asian languages. They were taking more turns, speaking more, overlapping and backchanneling more than East Asian speakers.

Figure 2. Interaction analysis of heterogeneous groups.

Variable	T(p)	Diff of midranks	SE of mean of midranks
Turns	-7.577 (0.000)	18.9	2.49
Words	-9.10 (0.000)	20.32	2.23
Turn length	-2.73 (0.011)	11.25	4.13
Overlaps	-4.72(0.000)	16.07	3.4
Backchannels	-4.46(0.000)	14.81	3.32
Latching	-1.06(0.30)	4.57	4.33

In contrast to heterogeneous groups, homogenous groups of U.S. and East Asian participants did not produce statistically significant results except in two areas, turn length and latching. See Table 3 below for detailed results.

Figure 3. Interaction analysis of homogeneous groups.

Category	Homogeneous groups
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Variable	T(p)	Diff of midranks	SE of mean of midranks
Turns	0.62(0.541)	-2.22	3.58
Words	0.75(0.46)	2.73	3.62
Turn length	7.221(0.000)	13.45	1.86
Overlaps	-0.80(0.43)	2.67	3.35
Backchannels	0.89(0.38)	-3.17	3.54
Latching	5.01(0.001)	-11.68	2.33

We found no significant differences in the rate of contribution of speakers of East Asian languages and U.S.-born speakers of English when working in homogeneous groups. East Asian speakers working in homogeneous groups took as many turns and spoke as many words as U.S.-born students in homogeneous groups. The shorter turn length ($p=0.000$) is consistent with Clyne's research who also observed cultural differences in turn length, with East Asians producing shorter turns (Clyne, 1994). However, the shorter turn length does not affect the overall rate of contribution.

Both groups also demonstrated similar patterns of participation measured by looking at overlaps and backchannels. The only area that showed significant differences between the two groups was latching ($p=0.001$). Speakers of East Asian languages in homogeneous groups were using latching, i.e. that is, changing turns without a perceptible pause, more frequently than U.S. born speakers.

CONCLUSION

The results of our study indicate that there is a need for much more fine-grained studies of cultural groups working in teams to determine their leadership preferences and the effects of leadership styles on team effectiveness. Differences in preferred leadership styles identified in this study suggest that leadership is constructed differently among cultural groups, and the next step of analysis is to start looking at the actual transcriptions and tapes to see how leadership is constructed in talk.

The results of our communication-based measure of leadership attributes suggest that the differences in preferred leadership styles have an effect on both, member satisfaction and member participation in the group process. Numerous studies have demonstrated that moderately heterogeneous groups experience significant communication problems, relational conflict, and low team identity that have a dysfunctional impact on team effectiveness (Jehn, Chadwick, & Thatcher, 1997). As a rule, heterogeneous teams report reduced satisfaction with the team, which, in turn, negatively affects team performance (Jehn, Northcraft, & Neale, 1999; Earley & Mosakoski, 2000; Ravlin, Thomas & Ilsev, 2000). A close content analysis of leadership style can provide much needed answers how to reduce relational conflict and inform members of different cultures how to successfully lead heterogeneous teams.

Of course, additional studies are needed to explore these and other cultural differences that may have an effect on group overall performance. One of the limitations of our study is a relatively small data sample. A larger data set is needed to be able to make stronger claims.

In a related vein, some researchers have criticized the use of simulated data, suggesting it may not result in "authentic" encounters. One concern is that in the process of observation, the investigator may affect the outcome of the results. Consequently, it would be useful to test our initial results in an actual workplace setting.

Finally, our study only looked at survey data and drew from earlier results using interaction analysis to study contribution and participation in heterogeneous and homogenous teams. More insights could potentially be developed by conducting a content analysis of the meeting transcripts and text based analysis of different leadership styles and how they manifest themselves in talk.

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SELECTING SUCCESSFUL RETAIL STORE MANAGERS THROUGH THE RELATIONSHIP OF PERSONALITY TRAITS, JOB SATISFACTION AND JOB PERFORMANCE

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ABSTRACT

The objective of this research was to determine the relationship between personality traits, job satisfaction and job performance of South Africa Retail Store Managers. A cross-sectional survey design was used with a purposive selected sample taken from managers (N=89) of South African Retail Stores. The 15 FQ+, Core Self-Evaluations Scale, Job Diagnostic Survey and a Job Performance Questionnaire were administered. Results showed that Extraversion, Emotional Stability and Core Self Evaluations are statistically significant predictors of Job satisfaction. Job satisfaction statistically significantly predicted job performance. Job satisfaction mediated the relationship between Core Self Evaluations and Job Performance. Recommendations are made.

INTRODUCTION

Consumer goods retailing is a fast-moving and results-orientated industry and, as such, places high demands on people across all levels in the business. Most importantly, however, it requires exceptional performance from people occupying managerial positions in the retail stores. Although relationships between personality traits and work related behaviours have been frequently investigated, there were very few studies conducted for the occupational class of retail store managers. Furthermore, this trend reflects a broader lack of retail and sales management research in the international arena (Money & Graham, 1999). Many researchers find the trend very surprising provided the distinct nature of salesperson's duties and job responsibilities which entail multiple roles and functions, as well as high stress levels in comparison to employees in other professions (Behrman & Perreault, 1984; Brashear, Lepkowska-White & Chelariu, 2003; Singh, 1993).

According to Lush and Serpkenci (1990), the store manager has a strong influence on achievement of organisational objectives, such as meeting sales target, making profit, maintaining high store standards, providing excellent service to the customers. Lush and Serpkenci (1990) further stressed that the store manager "is simultaneously a merchandiser, a salesperson, a financial officer, a marketer, and a supervisor of other employees. Such environment calls for the recruitment and selection function within organisations to find candidates that would fit well into the teams and perform to the highest expectations. Consequently, the ability to identify personality traits that determine future success of the job applicants as retail store managers is paramount in the process of candidates' selection.

Given that a number of studies (Bono & Judge, 2003; Judge, Erez, Bono & Locke, 2005; Morrison, 1996; Van den Berg & Feij, 2003) have shown that the level of job satisfaction is partially determined by some of the personality traits, there is a need to find the personality traits that influence both the job performance and the job satisfaction of retail store managers. This study suggests investigating the relations of personality traits (*Extraversion, Emotional Stability, Conscientiousness, and Core Self-evaluations*) to *Job Performance* and *Job Satisfaction* for the occupational class of retail store managers in South Africa. The rationale for the study arose from a belief that by using these personality traits as predictors of job performance and job satisfaction,

the present study may contribute to optimisation of personnel recruitment and selection processes in the retail industry.

RESEARCH HYPOTHESES

For purposes of this research, seven hypotheses were formulated based on existing literature and previous studies. The hypotheses as well as the rationale thereof are presented below.

H 1: *Extraversion is a statistically significant predictor Job Performance*

H 2: *Conscientiousness is a statistically significant predictor Job Performance*

Barrick and Mount (1991) investigated the relationships between Extraversion, Emotional Stability, Agreeableness, Conscientiousness, Openness to Experience and three job performance criteria (job proficiency, training proficiency, and personnel data) for five occupational groups, namely, professionals, police, managers, sales and skilled / semi-skilled. The results of the study indicated that one of the Big Five traits, Conscientiousness, showed strong and consistent relations with all job performance criteria across all occupational groups. Both Extraversion and Openness to Experience were valid predictors of the training proficiency criterion for all occupations. Extraversion was a valid predictor only for two occupational classes which involve social interactions, managers and salesmen, however, for all three criterion types (Barrick and Mount, 1991). Tett, Jackson, and Rothstein (1991) found in their study that Conscientiousness is the most consistent predictor of job performance. Furthermore, Barrick and Mount's results were corroborated in a similar study conducted by Salgado (1997). He concluded that Conscientiousness and Emotional stability are valid predictors of job performance across different occupational groups (Salgado, 1997).

H 3: *Emotional stability is a statistically significant predictor of job satisfaction*

H 4: *Extraversion is a statistically significant predictor of job satisfaction*

As far as the relation of personality traits to job satisfaction is concerned, Van den Berg and Feij (2003) referred to a few studies showed that personality served as a determinant of attitudinal or affective job outcomes such as job satisfaction. Judge, Higgins, Thoresen and Barrick (1999) found that the Big Five personality traits measured in childhood predicted job satisfaction in late adulthood. More specifically, it was confirmed in their study that Neuroticism is negatively related to job satisfaction ($r = -0.22$). However, this relationship became insignificant in a regression analysis when other Big Five traits were added into the regression equation (Judge *et al.*, 1999). Van den Berg and Feij (2003) referred to a review by Judge, Heller and Mount where they showed that Extraversion is related to job satisfaction across the studies. Accordingly, Judge and Bono also reported a correlation between Emotional Stability and Job Satisfaction of 0.24 (Judge & Bono, 2001).

H 5: *Core self-evaluations is a statistically significant predictor of job satisfaction*

Judge, Van Vianen and De Pater (2004) believe that the core self-evaluations trait is the best dispositional predictor of job satisfaction. Judge and Bono (2001) found an average correlation of 0.32 between the four individual core traits and job satisfaction. However, when these individual traits are converted in one broad core self-evaluations factor, this correlation dramatically increases to 0.41 (Judge & Bono, 2001). It can be concluded that the overall core concept is a more consistent predictor of outcomes rather than the individual traits. Furthermore, Judge *et al.* (2004) refer to a study conducted by Judge and Heller, which confirmed that core self-evaluations trait was more strongly related to job satisfaction than the Big Five traits or positive/negative affectivity.

H 6: *Job satisfaction is a statistically significant predictor of job performance*

Babin and Boles (1998), in their study of service personnel, found a significant path between performance and satisfaction for male employees, but not for the female employees. The findings of MacKenzie,

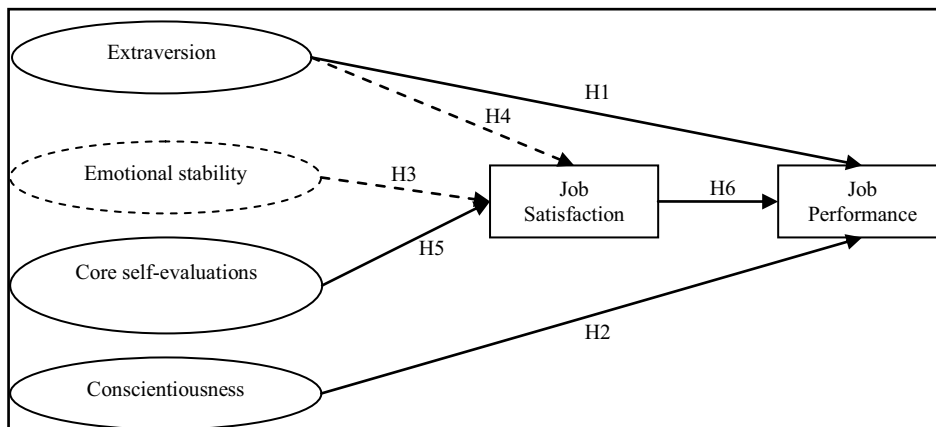
Podsakoff and Ahearne (1998) confirmed that in-role performance is related directly to job satisfaction, and indirectly to organizational commitment. Abdel-Halim (1980) reported positive relation between performance ratings and both intrinsic and extrinsic measures of job satisfaction for individuals with strong higher order needs strength (HONS), while no such relation existed for individuals with weak HONS (Abdel-Halim, 1980). A study of Iaffaldano and Muchinsky (1985) found job satisfaction to result in increasing job performance, which also confirmed the positive relationship between job satisfaction and job performance.

H 7: Job satisfaction mediates the relationship between Emotional Stability and job performance, between Extraversion and job performance, and between Core self-evaluations and job performance.

Previous research suggested a few models where the relationship between personality traits (including Core-self evaluations) and job performance or satisfaction was mediated by other variables (Ilies & Judge, 2004; Judge, Erez, Bono & Locke, 2005; Van der Berg & Feij, 2003). For example, Van der Berg and Feij (2003) found mediating effect of job satisfaction on the relationship between Extraversion and propensity to leave, and between Neuroticism and propensity to leave. On the other hand, Judge *et al.* (2005) reported that Core self-evaluations were positively related to job satisfaction, which as shown by MacKenzie *et al.* (1998) was related to job performance (Abdel-Halim, 1980; Iaffaldano & Muchinsky, 1985; MacKenzie *et al.*, 1998).

In sum, the research present the following model relating personality traits, core self evaluations, job satisfaction and job performance for the occupational class of retail store managers

Figure 1 – Resulting model relating personality traits, core self evaluations, job satisfaction and job performance for the occupational class of retail store managers



RESEARCH METHOD

A quantitative, ex post facto research approach was followed. A cross-sectional survey design was used to collect data and attain the research goals. This design is ideally suited to the descriptive and predictive functions associated with correlation research and to assess the interrelationships between the variables in the research (Shaunessey & Zechmeister, 1997). The participants of the study were store managers from one of the South African retail chains. A total of 147 questionnaires were distributed to a purposive selected sample of Managers of all stores of this retail organization in Gauteng, Limpopo and Mpumalanga provinces. 95 questionnaires were returned which gives a 64.6% response rate. In this sample the majority of the participants were African (71.6%), while White and Coloured participants were represented by 22.1% and 6.3% respectively. Participants were primarily female (56.8%) and had an educational qualification of Grade 12 (62.1%).

Measuring Instruments

The 15FQ+ (Psytech, 1992), Core Self-Evaluation Scale (Judge, Locke & Durham, 1997), Job Diagnostic Survey (Hackman & Oldman, 1975) and a Job Performance Questionnaire (developed by the researcher) were administered.

- **15 FQ+:** *Extraversion, Emotional Stability and Conscientiousness* were measured by the 15 FQ+ Questionnaire. The 15FQ+ uses a self-report format and consists of 200 items. Respondents have to indicate on a three-point scale how closely the items describe their personal behaviour. The alternatives offered are “agree”, “unsure” and “disagree”. Cronbach’s alpha reliabilities for a professional sample on the standard form ranged from 0.77 to 0.83 for the 16 traits and 5 broad factors. Similarly, test-retest reliabilities varied from 0.77 to 0.89 (The 15FQ+ Technical Manual, 2009).
- **Core Self-Evaluation Scale** (Judge, Locke & Durham, 1997): The Core Self-Evaluations Scale (CSES) was used for the purpose of measurement core self-evaluations trait. The CSES consist of 12 items and measure *Self-esteem, Generalised self-efficacy, Neurotism, and Locus of control* on a five-point Likert scale from 1 to 5, where 1 is “strongly disagree “ and 5 is “strongly agree“. Previous studies showed that an average alpha coefficient reliability of 0.84 (Judge *et al.*, 2003).
- **Job Diagnostic Survey** (Hackman & Oldman, 1975): The Job Diagnostic Survey (JDS) contains 14 items that measure satisfactions along the following specific dimensions: *Pay* (2 items), *Job security* (2 items), *Social* (3 items), *Supervisory* (3 items); and *Growth* (4 items). The first four of these are Work Context Satisfaction, while Growth Satisfaction is related to intrinsic features of the job reflecting the degree to which a person is satisfied with opportunities for personal growth and development on the job. A seven-point response scale from 1 to 7 is used, where 1 is “extremely dissatisfied” and 7 is “extremely satisfied”. Hashim (2006) found a Cronbach Alpha equal to 0.933 for the JDS.
- **Job performance Questionnaire:** For the purpose of this study independent supervisory ratings were used to evaluate subordinate’s job performance. Each store manager was rated by his or her immediate supervisor, Divisional Operational Manager, with respect to the following five items: quality of work performance, amount of effort expended on the job, productivity on the job, speed on the job, and overall work performance (Abdel-Halim, 1980). The supervisors were asked to describe how well the particular subordinate was doing on each of the five items. The evaluation used a 5 point scale, ranging from “very poor” to “excellent” for each criteria. The same type of independent supervisory ratings consisted of five criteria were used by Abdel-Halim (1980) in his study investigating the effects of higher order needs on job performance-satisfaction relationship in the retail environment context. According to Abdel-Halim (1980), the internal consistency reliability of the ratings was 0.88 in his sample.

Data analysis

The collected data was subjected to statistical analysis using the SAS System 9.1 (SAS Institute, 2003) to produce descriptive statistics, reliability and validity analysis of the measuring instruments, correlation coefficients, exploratory factor analysis for each construct, as well as other Linear Models, including Multiple Regression analysis. A 90% confidence interval level was used for all significance testing in this study. Goodness of fit measures such as chi-squared test, GFI, AGFI, NFI was used to evaluate how well the model fit the data.

RESULTS

Prior to the testing of hypotheses, the psychometric properties of the Core Self Evaluation Scale (CSES), Job Diagnostic Scale (JDS) and Job Performance Questionnaire (JPQ) were examined. These included the Kaiser-Meyer-Olkin (KMO) to determine the sample adequacy and sphericity of the item-correlation matrix, exploratory factor analysis to discover and identify the dimensions of the measurements and reliability analysis using Cronbach alpha coefficients to give the measure of accuracy of the instruments and to determine how repeatable the results are. The Core Self Evaluation Scale, Job Diagnostic Scale and Job Performance Scale obtained a Measure of Sampling Adequacy of 0,759, 0,838 and 0,900 respectively which according to the guideline of higher than 0.6 (Hair, Anderson, Tatham & Black, 1998) is adequate for factor analysis. Next, exploratory factor analysis using Principal Axis Factoring extraction method was performed on the measurements. Results revealed one underlying factor structure for the Core Self Evaluation Scale, Job Diagnostic Scale and Job Performance Scale. The factors were labelled core self-evaluations, job satisfaction and

job performance. The descriptive statistics and reliabilities of the factor per measurement are reported in Table 1 below:

Table 1: Descriptive statistics and Alpha Coefficients: CSES, JDS and JPQ

Scales	Mean	SD	Skewness	Kurtosis	α
Core Self-Evaluations	3.300	8.398	0.045	-1.058	0.734
Job Satisfaction	5.170	13.025	-0.732	-0.112	0.881
Job Performance	3.370	3.484	-0.333	-0.360	0.908

Table 1 shows that the Cronbach alpha coefficients compare well with the guideline of 0,70, demonstrating that a large portion of variance is explained by the dimension (internal consistency of the dimensions) (Cortina, 1993). No factor analysis was performed on the 15FQ + measure because of the small sample size. Based on the validity and reliability of the measurement in previous studies, the theoretical subscales of Extraversion, Emotional Stability and Conscientiousness were used for further analysis.

Testing of the hypotheses

Hypotheses 1 to 6 were tested by means of linear regression analysis. The results are reported in Table 2 below. The results in Table 2 show:

- In terms of Hypothesis 1: Extraversion is a statistically significant negative predictor of job performance. Extraversion however explains 5.5% of the variance in job performance which is considered low. Hypothesis 1 is therefore rejected.
- In terms of Hypothesis 2: There is no statistically significant relationship between conscientiousness and job performance. Hypothesis 2 is rejected.
- In terms of Hypothesis 3: Emotional stability is a statistically significant predictor of job satisfaction. Emotional stability however explains 9% of the variance in job satisfaction and is considered a small effect. Hypothesis 3 is accepted.
- In terms of Hypothesis 4: There is no statistically significant relationship between Extraversion and Job Satisfaction. Hypothesis 4 is rejected.
- In terms of Hypothesis 5: Core self-evaluation is a statistically significant predictor of job satisfaction. Core Self Evaluations explains 19% of the variance in job satisfaction. Hypothesis 5 is accepted.
- In terms of Hypothesis 6: Job satisfaction is a statistically significant predictor of job performance. Job satisfaction however explains 5.5% of the variance in job performance which is considered and is considered a small effect. Hypothesis 6 is accepted.
- Having investigated the individual hypothesised relationships between the constructs, the next step was to estimate and overall model, which would include all the constructs and account for mutual interactions between them. It was hypothesised that Job satisfaction mediates the relationship between Emotional Stability and job performance, between Extraversion and job performance, and between Core self-evaluations and job performance. Results indicated that the model did fit adequately to the data $\chi^2 = 2.2041$, $\chi^2/df = 3$, GFI = 0,99; AGFI = 0,95; CFI = 0,95, NFI = 97 and RMSEA = 0,00. In the initial model however, it was found that not all relationships between the variables are strong. For example Emotional stability and Job satisfaction was significant when tested individually, yet a combined model produced a lower effect (0.11) thus indicating that Core-self evaluations play a dominant role in the relationship, as its addition to the model reduced the effect of Emotional stability. Since the two measures have a significant covariance (0.45 with a t-value of 0.45), it may be argued that only Emotional stability has a marginal impact on satisfaction in the presence of Core self-evaluations. In addition it is evident that the effect of Extraversion on Job satisfaction is also marginal, considering its low coefficient (-0.11 with t-value of -0.99). Since the individual regression of extraversion on job satisfaction also yielded insignificant results, but with a positive effect, the appearance of a marginal negative effect for this relationship in the combined model may be indicative of the fact that the estimation

procedure is adjusting for the combined positive effect of emotional stability and core self-evaluations.

Model	Unstandardised			t	p	R	R ²	Δ R ²
Standardised	Coefficients							
Coefficients								
H1: Extraversion is a statistically significant predictor Job Performance								
	B	SE	Beta			.234 ^a	.055	.045
(Constant)	22.609	1.066		21.200	0.000			
Extraversion	-.063	.027	-.234	-2.320	.023			
H2: Conscientiousness is a statistically significant predictor Job Performance								
	B	SE	Beta			.028 ^a	.001	-.010
(Constant)	19.569	2.585		7.572	0.000			
Conscientiousness	.034	.125	.028	.275	.784			
H3: Emotional stability is a statistically significant predictor of job satisfaction								
	B	SE	Beta			.304 ^a	.093	.083
(Constant)	59.388	4.526		13.122	0.000			
Emotional Stability	.800	.260	.304	3.080	.003			
H 4: Extraversion is a statistically significant predictor of job satisfaction								
	B	SE	Beta			.101 ^a	.010	.000
(Constant)	68.971	4.080		16.906	0.000			
Extraversion	.102	.104	.101	.983	.328			
H 5: Core self-evaluations is a statistically significant predictor of job satisfaction								
	B	SE	Beta			.435 ^a	.189	.181
(Constant)	45.759	5.917		7.734	0.000			
Core self-evaluations	.675	.145	.435	4.662	.000			
H 6: Job satisfaction is a statistically significant predictor of job performance								
	B	SE	Beta			.188 ^a	0.05	0.042
(Constant)	15.735	2.033		2.27	0.000			
Job satisfaction	0.072	0.032	0.229	1.845	0.026			

Table 2: Regression analysis between the Personality types, Job satisfaction and Job performance

In fact, if relationships described by hypothesis three (Emotional Stability->Satisfaction) and four (Extraversion->Satisfaction) are removed from the model, the resulting adjusted model provides similar coefficients and goodness of fit indices. Figure 2 illustrates such an adjusted model with marginal relationships removed.

Figure 2 : Simplified path Analysis Model with standardised estimates adjusted for inter-construct correlations



Given the more parsimonious nature of the adjusted model and highly similar results to the original combined model the researcher is more inclined to accept the adjusted model in place of the original one. Further research may be necessary to discern the relationship between Emotional stability and Core self-evaluations trait and their joint effect on job satisfaction. Hypothesis 7 is accepted.

DISCUSSION

The purpose of the research was to investigate the relationships of personality traits (Extraversion, Emotional Stability, Conscientiousness, and Core Self-evaluations) to job performance and job satisfaction for the occupational class of store managers in the context of South African retail industry. The study attempted to address the management dilemma at hand and aimed to predict job performance and job satisfaction of retail store managers by analysing personality traits. The results showed that Emotional Stability and Core Self Evaluations are statistically significant predictors of Job Satisfaction. Job satisfaction statistically significantly predicted Job performance. Results further showed that the proposed model fitted the data well and that job satisfaction mediated the relationship between Core Self Evaluations and Job Performance. The above results thus confirm previous studies of Judge and Bono (2001), Judge et al. (2005), Abdel-Halim (1980), Iaffaldano and Muchinsky (1985); MacKenzie et al. (1998), Ilies & Judge, 2004; Van der Berg & Feij (2003).

Management Implications

Selecting the right people in an attempt to fulfil the management needs inevitably requires psychological assessments at the onset of the process. The use of any instruments, as well as other ways of measuring job applicants against the objective criteria for specific jobs, such as structured and unstructured job interviews, case studies, role plays, reference checks, and bio-data, raises further questions pertaining to the objectivity, reliability and validity of such methods, especially in the South African context. The findings of this study provided other retail organisations some insights into identification of those personality traits that predict job performance and affect job satisfaction of the store managers. The study may also contribute to optimisation of personnel recruitment and selection processes as well as talent management strategies in retail industry.

Limitations and Recommendations

One of the primary limitations affecting the results is the sampling approach. This study used purposive sampling method, characterised by the use of judgment and a deliberate effort to obtain representative samples by including presumably typical areas or groups in the sample. Since the study focused on applying the theoretical models in the context of South African retail stores, store managers of one specific retail chain were approached. Although it may be argued that retail store managers may be expected to behave in a similar fashion, it is necessary to note that only managers of one organisation were subjected to the survey, which may play a role if the results are to be extrapolated to a wider retail audience.

In order to address some of the limitations and gain further insight into the relationships between Core self-evaluations, job satisfaction, personality aspects and job performance in the South African context, future studies should attempt to collect a sample that is representative of more retail trade organisations in the country. It may further be suggested to investigate the differences in behaviour of retail store managers with different demographic characteristics, such as gender, race, age and educational background. Other personality traits measured by the 15FQ+ instrument may also be introduced into the model. In addition more research that would

apply the developed model to other industries and / or occupational classes in South Africa is needed in order to expand the body of knowledge on this topic.

In closing, the findings showed that the model suggested and empirically tested in this study can be applied as a predictor of job performance and job satisfaction for the occupational class of retail store managers in the South African context. The results obtained in the study together with the recommendations for future research can contribute into optimisation of the recruitment and selection processes and employee retention strategies in the retail industry.

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LINKING ORGANISATIONAL ENERGY AND INDIVIDUAL WELL-BEING: THE INFLUENCE OF LEADERS' TALENT MINDSET

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ABSTRACT

The objective of this research was to determine the relationships between talent mindset, organisational energy and well-being. A cross-sectional survey design was used, with a convenience sample (N = 528) taken of employees in a South African financial institution. The Talent Mindset Index (TMI), EnergyScapes Profile (ESP), and Shirom-Melamed Vigour Measure (SMVM) were administered. Results showed that talent mindset statistically significantly predicts organisational energy and that organisational energy statistically significantly predicts well-being. Practical significant relationships were found between the dimensions of talent mindset, organisational energy and well-being. Organisational energy mediated the relationship between talent mindset and well-being. Recommendations are made.

INTRODUCTION

Many organizations, struggling to keep up with the unrelenting pace of change and extreme competitive pressure seek to adopt the latest technique or tool in order to improve their bottom line. It may be that the way we view the individual and the organization needs to change, and the dynamic, never-ending pattern of interaction recognized. Integration of phenomena at the individual and organizational levels moves the analysis of organizations away from the static, structural qualities towards a more dynamic process (Pettigrew & Fenton, 2000). This perspective facilitates the study energy. Individual energy, especially of leaders' influences organisational energy and the energy state of the organisation affects the energy of individuals (Bruch & Ghoshal, 2003). Organizations benefit from positive dynamics of an energized workforce because employees work well together, relationships are supportive, inspiring and information is freely shared (Cartwright & Holmes, 2006). Managing energy is important as it drives motivation, power teamwork, fosters creativity and gives organizations a competitive edge (Schiuma, Mason & Kennerley, 2007). Without a high level of energy, a company cannot achieve overall productivity improvements, cannot grow fast and cannot create major innovations (Bruch & Ghoshal, 2003).

Leadership in essence, is thus a task of unleashing organisational energy and channelling it in support of key strategic organisational goals (Bruch & Ghoshal, 2003; Bruch, Vogel & Raes, 2010). Yet our understanding of how leaders' talent mindset influences organisational energy and the outcomes thereof is limited. Talent management is a construct that evolves around the concept of leadership mindset (McArdle & Ramerman, 2008). Talent management involves the implementation of integrated human resource strategies to attract, develop, retain and productively utilize employees "with the required skills and abilities to meet current and future business needs" (Kontogiorgos & Frangou, 2009). It is a culture that contributes to and unleashes passion, commitment, and performance of people which in turn contributes to the organisation achieving its mission, vision, and business goals ((McArdle & Ramerman, 2008). Managing talent and organisational energy thus means managing the sources of energy dynamics and create a thriving work environment in which individuals will experience both a sense of vitality and a sense of learning at work (Schiuma et al., 2007; Spreitzer et al. 2005). According to Keyes (in Spreitzer et al. 2005), individuals who feel a sense of vitality and aliveness are more likely to be mentally and physically healthy. The right talent mindset is thus critical to an organisation's competitive advantage, with benefits to both the individual and the organisation (Morton, 2008).

It is against this background that we investigate the relationship between the leader's talent mindset, organisational energy and well-being. More specifically the research aimed to determine whether:

- Talent Mindset enhances Organisational Energy;
- Organisational Energy enhances Well-being;
- Organisational Energy mediates the relationship between Talent Mindset and Well-being.

It is worth mentioning that organisational energy is an emerging concept in management literature and that no empirical studies have been done on this concept in South Africa. Furthermore, no empirical research could be found relating the concepts of leader's talent mindset, organisational energy and well-being. For purposes of this research we defined organisational energy as human consciousness and at the collective level as the collective consciousness of the organizations' members (Tosey, 1994; Tosey & Lewellyn, 1999, 2002). Tosey and Llewellyn (2002) developed an energies model which characterise organisational energy as having seven energies namely inspiration, integration, meaning, community, control, activity and existence. The energies model help to "create a language through which participants can identify and discuss their "self experience", and can (so far as they choose to) inquire into their organisation's energies" (Tosey & Llewellyn, 2002, p. 54). In addition we define talent mindset as the inherently held values and behaviour that demonstrate the premise that individuals have potential that is considered worth investing into and developing for the organisation (Ashton & Morton, 2005). Finally we used the concept of vigour, as defined by Shirom (2005) to measure well-being. According to Shirom (2005) vigour is a work-related ongoing emotional experience that results from the individual's appraisal of their job and the working environment and what these mean to them. Vigour can further be defined as an affective state that individuals attribute to their work and conceptually includes physical strength, emotional energy and cognitive liveliness. This research thus makes a unique empirical contribution towards understanding the unique elements of a leader's talent mindset towards creating energy in organizations and the impact thereof on the individual.

Research Postulates:

For purposes of this research, the following research postulates were formulated:

P1: Talent Mindset enhances Organisational Energy;

P2: Organisational Energy enhances Well-being;

P 3: Organisational Energy mediates the relationship between Talent Mindset and Well-being.

RESEARCH DESIGN

An exploratory, ex post facto, quantitative research approach was followed to allow for the exploration of a new area of talent mindset, organisational energy and individual well-being, where the results provide significant insight in a situation. This study was a cross-sectional survey design in that data from more than one group was collected at a fixed point in time. This design is ideally suited to the descriptive and predictive functions associated with correlation research (Shaunessey & Zechmeister, 1997).

Participants

The participants were employees of a South African financial Institution. Of the 3850 questionnaires distributed, a total of 528 completed questionnaires were returned. This resulted in a response rate of 13.7 %. According to Neuman (1994), a response rate of 10 to 50% is common for a mail survey. In this research, participants were primarily female (71,2%), aged between 20-29 years (45.6%), Afrikaans speaking (44,2%), White (41,3%), ordinary staff members (80,8%) and permanently employed (78,3%).

Measuring Instruments

A Talent Mindset Index, EnergyScapes Profile, and Shirom-Melamed Vigour Measure were administered in this research.

- Talent Mindset Index (Human Capital Institute). An adapted version of the Talent Mindset Index was used to measure the Leader's talent mindset. The Index consists of 28 items and measures eight dimensions which include: Executive Commitment, Alignment, Talent Acquisition, Talent review process, responsibility, resources, culture and results. Each dimension is measured on a 5-point Lickert scale ranging from Strongly Disagree (1) to Strongly Agree. Acceptable internal consistencies were found for the above dimension ranging from 0.65 to 0.82 (Stanz, Barkhuizen & Welby-Cooke, 2010).
- The Energy Scapes Profile (Tosey, 1994; Tosey & Smith, 1999) was administered to measure organisational energy. The questionnaire consists of 105 items and measures seven dimensions. These dimensions are: Inspiration, Integration, Meaning, Community, Control, Activity and Existence. Each dimension is measured with 15 items on a Likert ranging from Not at all (1) to very great extent (7).
- The Shirom-Melamed Vigour Measure (Shirom, 2005) and a Biographical questionnaire were administered. The Shirom-Melamed Vigour Measure (SMVM) was used to measure employee well-being. The questionnaire consists of 12 items and measures three dimensions. The dimensions include: Physical Strength (5 items), Cognitive Liveliness (3 items) and Emotional Energy (4 items). A Likert scale of seven rating points was used for this questionnaire ranging from Never or almost never (1) to Always or almost always (7).

Data analysis

The statistical analysis was carried out with the SPSS Program (SPSS, 2009). The reliability and validity of the measuring instruments were determined by means of Cronbach alpha coefficients, as well as exploratory factor analysis. Descriptive statistics (i.e., means, standard deviations, skewness and kurtosis) were used to analyse the data. Linear regression analysis and Pearson correlation were performed to test for the significance of relationships between the variables.

RESULTS

Prior to the testing of hypotheses, the psychometric properties of the Talent Mindset index (TMI), Energy Scapes Profile (ESP) and Shirom-Melamed Vigour Measure (SMVM) were examined. These included the Kaiser-Meyer-Olkin (KMO) to determine the sample adequacy and sphericity of the item-correlation matrix, exploratory factor analysis to discover and identify the dimensions of the measurements and reliability analysis using Cronbach alpha coefficients to give the measure of accuracy of the instruments and to determine how repeatable the results are. The TMI, ESP and SMVM obtained a Measure of Sampling Adequacy of 0.966, 0.985 and 0.926 respectively which according to the guideline of higher than 0.6 (Hair, Anderson, Tatham & Black, 1998) is adequate for factor analysis. Next, exploratory factor analysis using Principal Axis Factoring extraction method was performed on the measurements. Results revealed one underlying factor structure for the TMI, ESP and SMVM. The factors were labelled talent mindset, organisational energy and individual well-being. For purposes of this research, the factor as well as the sub-scales of the measurements will be used in further analysis. Table 1 reports the descriptive statistics as well as the reliabilities for the measurements and subscales.

Table 1: Descriptive statistics and Alpha Coefficients: TMI, ESP and SMVM

Scales	Mean	SD	Skewness	Kurtosis	α
Talent Mindset	3.18	2.73	-0.42	1.31	.962
Subscales					
Executive Commitment	3.22	3.84	-0.41	0.56	.827
Talent Acquisition	3.18	1.65	-0.38	0.48	.734
Alignment	3.15	2.56	-0.34	0.15	.830

Talent Review Process	3.21	4.23	-0.42	1.22	.865
Responsibility	3.18	3.04	-0.32	0.73	.811
Resources	3.12	2.52	-0.26	0.30	.853
Culture	3.21	1.76	-0.42	0.33	.807
Results	3.17	2.24	-0.20	0.96	.797
Organisational Energy	3.97	1.17	-.117	-.232	0.993
Subscales					
Inspiration	3.89	1.15	-.104	-.142	.954
Integration	3.88	1.17	-.078	-.329	.947
Meaning	4.00	1.17	-.196	-.166	.951
Community	4.06	1.19	-.113	-.178	.956
Control	3.95	1.20	-.037	-.178	.958
Activity	4.03	1.15	-.201	-.069	.946
Existence	4.01	1.20	-.125	-.299	.957
Well-being	4.77	1.12	-.619	.795	.945
Subscales					
Physical Strength	4.42	1.28	-.418	.304	.946
Cognitive Liveliness	4.67	1.30	-.427	.296	.875
Emotional Energy	5.29	1.29	-.656	.344	.931

Table 1 shows that the Cronbach alpha coefficients compare well with the guideline of 0,70, demonstrating that a large portion of variance is explained by the dimension (internal consistency of the dimensions) (Cortina, 1993).

Testing of Postulates

Next linear regression analysis was performed to test for the predictive relationships of the variables in Hypothesis 1 and 2. First, a regression analysis was done to investigate the relationship between the scale variables of talent mindset, organisational energy and well-being. When a relationship was significant, Pearson correlation analysis was performed to determine the significance of relationships between the subscales. The results of the regression analysis between talent mindset (independent variable) and organisational energy (dependent variable) are reported in Table 2 below.

Table 2: Regression Analysis between Talent Mindset and Organisational Energy

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
	B	SE	Beta			.633 ^a	.401	.400
(Constant)	58.825	1.784		3.025	.003			
Organisational Energy	4.005	.214	.633	18.752	.000			

* Statistically significant: $p > 0,01$

+ Practically significant correlation (medium effect): $r > 0,30$

++ Practically significant correlation (large effect): $r > 0,50$

From Table 2 it is evident that Talent Mindset is a statistically significant predictor of Organisational Energy ($r_{(df = 528; p < 0.001)} = .633$, large effect). Next Pearson correlation was performed to determine the

significance of the relationships between the talent mindset dimensions (independent variables) and organisational energy dimensions (dependent variables). The results are reported in Table 3 below.

Table 3: Correlation Coefficients - Talent Mindset and Organisational Energy

	Existence	Activity	Control	Meaning	Integration	Community	Inspiration
Executive Commitment	.581 ^{***}	.549 ^{***}	.577 ^{***}	.550 ^{***}	.573 ^{***}	.529 ^{***}	.575 ^{***}
Alignment	.546 ^{***}	.516 ^{***}	.536 ^{***}	.512 ^{***}	.540 ^{***}	.487 ^{***}	.531 ^{***}
Talent acquisition	.507 ^{***}	.498 ^{***}	.508 ^{***}	.495 ^{***}	.516 ^{***}	.477 ^{***}	.515 ^{***}
Talent review process	.542 ^{***}	.517 ^{***}	.535 ^{***}	.525 ^{***}	.546 ^{***}	.506 ^{***}	.540 ^{***}
Responsibility	.530 ^{***}	.514 ^{***}	.519 ^{***}	.518 ^{***}	.541 ^{***}	.502 ^{***}	.534 ^{***}
Resources	.498 ^{***}	.510 ^{***}	.499 ^{***}	.490 ^{***}	.510 ^{***}	.481 ^{***}	.509 ^{***}
Culture	.554 ^{***}	.546 ^{***}	.544 ^{***}	.558 ^{***}	.546 ^{***}	.540 ^{***}	.558 ^{***}
Results	.521 ^{***}	.494 ^{***}	.497 ^{***}	.516 ^{***}	.513 ^{***}	.496 ^{***}	.516 ^{***}

* Statistically significant: $p > 0,01$

+ Practically significant correlation (medium effect): $r > 0,30$

++ Practically significant correlation (large effect): $r > 0,50$

From Table 3 it is evident that Executive Commitment, Talent Review Process, Responsibility and Culture are practically significantly related to all the dimensions of organisational energy (all large effects). Alignment is practically significantly related to all organisational dimensions with large effects, except for community (medium effect). Talent acquisition is significantly related to all organisational dimensions with large effects, except for activity, meaning and community (all medium effects). Resources are practically significantly related to Activity, Integration and Inspiration (all large effects) and Existence, Control, Meaning and Community (all medium effects). Results are practically significantly related to Existence, Meaning, Integration and Inspiration (all large effects) and Activity, Control and Community (Medium Effects).

The result of the regression analysis between Organisational Energy (Independent Variable) and Well-being (Dependent Variable) is reported in Table 4.

Table 4: Regression Analysis - Organisational Energy and Well-being

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
	B	SE	Beta			.556 ^a	.310	.308
(Constant)	30.885	1.784		17.310	.000			
Organisational Energy	.063	.004	.556	15.357	.000			

* Statistically significant: $p > 0,01$

+ Practically significant correlation (medium effect): $r > 0,30$

++ Practically significant correlation (large effect): $r > 0,50$

From Table 4 it is evident that Talent Mindset is a statistically significant predictor of Organisational Energy ($r_{(df = 528; p < 0.001)} = .556$, large effect). Next Pearson correlation was performed to determine the significance of the relationships between the organisational energy dimensions (independent variables) and well-being dimensions (dependent variables). The results are reported in Table 5 below.

Table 5: Correlation coefficients – Organisational Energy and Well-being

	Physical Strength	Cognitive Liveliness	Emotional Energy
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Existence	.501 ^{*++}	.482 ^{*+}	.432 ^{*+}
Activity	.500 ^{*++}	.455 ^{*+}	.413 ^{*+}
Control	.513 ^{*++}	.494 ^{*+}	.440 ^{*+}
Meaning	.483 ^{*+}	.477 ^{*+}	.414 ^{*+}
Integration	.479 ^{*+}	.485 ^{*+}	.424 ^{*+}
Community	.468 ^{*+}	.453 ^{*+}	.438 ^{*+}
Inspiration	.549 ^{*++}	.510 ^{*++}	.456 ^{*+}

* Statistically significant: $p > 0,01$

+ Practically significant correlation (medium effect): $r > 0,30$

++ Practically significant correlation (large effect): $r > 0,50$

From Table 5 it is evident that Existence, Activity and Control are practically significantly related to Physical Strength (large effect) and Cognitive liveliness and emotional energy (all medium effects). Meaning, Integration and Community is practically significantly related to Physical Strength, Cognitive Liveliness and Emotional Energy (all medium effects). Inspiration is practically significantly related to Physical Strength and Cognitive Liveliness (all large effects) and Emotional Energy (medium effects).

As the above results uncovered the statistically significant relationships between talent mindset and organisational energy and organisational energy and well-being, standard multiple regression analysis was performed to determine whether organisational energy mediates the relationship between talent mindset and well-being. The results of multiple regression analyses with talent mindset and organizational energy as independent variables, and the interaction between these variables (to test for mediating effects), and well-being are reported in Table 6. (Note: All the independent variables were centred). In the model 1 and 2, the effects of the independent variables were entered, while in the second model the interaction term was also entered.

Table 6: Regression Analysis - Talent Mindset, Organisational Energy and Well-being

Model	Unstandardized Coefficients		Standardized Coefficients	t	p	R	R^2	ΔR^2
	B	SE	Beta					
1	Summary					.423	.179	.177
	(Constant)	2.507	.216	11.60	.000			
	Talent Mindset	.711	.066	.423	10.69	.000		
2	Summary					.564	.318	.315
	(Constant)	2.238	.199	11.25	.000			
	Talent Mindset	.198	.078	.118	2.52	.012		
	Organisational Energy	.481	.046	.482	10.35	.000		
3	Summary					.564	.318	.314
	(Constant)	2.011	.489	4.11	.000			
	Talent Mindset	.272	.165	.162	1.65	.101		
	Organisational Energy	.547	.139	.549	3.94	.000		
	Talent Mindset x Organisational Energy	-.021	.041	-.102	-.509	.611		

From Table 6, it is evident talent mindset explain 17.9% of the variance in well-being. Talent mindset and organisational energy combined explain 31.8% of the variance in well-being. However, adding the interaction of talent mindset and organisational energy in the multiple regression analyses did not result in a significant increase in the explained percentage of variance in well-being, albeit the significant effect of organisational energy. One can therefore conclude that organisational energy mediates the relationship between talent mindset and well-being.

CONCLUSION AND RECOMMENDATIONS

The absence of any empirical research relating talent mindset, organisational energy and well-being makes this research stand out as unique and exploratory. The insight gained by studying the leaders talent mindset and the impact thereof on organisational energy and individual well-being shows the importance of considering organizations as being dynamic and interactive with the very people that work for them (Pettigrew & Fenton, 2000). From a practical point of view it is therefore important to develop work environments that are humane, challenging and rewarding and where people feel passionate and energized by their work. Richards (2006) concludes that “the failure to manage energy shifts in a conscious and deliberate way is the primary reason that organisational visions and mission statements end up dry and lifeless”. Leaders should therefore be aware of the various leadership aspects of their work and the mechanisms by which they influence followers (Bruch et al., 2010). The results of this study thus encourage other leaders to question their own talent mindset and the impact thereof on organisational energy and the well-being of their employees.

One of the limitations of the research was the lack of literature and empirical studies on the concepts of talent mindset and organisational energy. We believe that this research made an important contribution to the generation of new knowledge in these areas. However, more research is needed for the theory development of talent mindset and organisational energy. The research was also limited in terms of the sample which means that the results cannot be generalised to other organizations. The sample should be expanded to other industries/ organizations for the further validation of results and the measuring instruments.

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AIRLINE MERGERS AND ACQUISITIONS; ANALYSIS OF TURKISH AIRLINES IN CONTRAST THREE MEGA CARIERS IN EUROPE

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ABSTRACT

Rarely a day goes by without a merger or acquisition announcement. Among all growth strategies, those involving either a merger or an acquisition seem to be favored despite their high level of risk and uncertainty. From an analyst's point of view, the ability to predict such asset movements is critical. In fact, an industry's landscape can be completely transformed only by one such move. Airline merger is a case in point.

INTRODUCTION TO MERGER AND ACQUISITION

A merger, theoretically, is when two companies agree that they want to go forward as a single company, rather than being separate entities. Usually, a merger is a polite way of saying that one company has bought another and that one of the terms of the deal was to let the CEO (Chief Executive Officer) or Chairman of the company that was bought says that it is a merger of equals. That's rarely the case in reality.

What drives a merger is the competitive landscape. When times are very bad, strong companies will seek out weak and strong companies to find out if the combination of the two of them will create a more competitive, cost efficient company than either one currently is. The strong companies combine to gain a greater market share or to achieve greater efficiency. The same is true for weaker companies who know they can't survive as independents. They will often contact each other to see if a merger can be effected and retain some of the business the companies have developed as well as some of the employees. Note that a merger is not necessarily between equals. If one company is much larger or smaller than the other, that can still be a merger. The idea of the merger is that the CEOs agree that continuing in business alone isn't the best thing for both companies. By merging with each other, the companies will benefit from: Elimination of certain personnel that will save money for the new entity, better cost efficiencies, and higher profile in the industry.

There are basically three kinds of mergers:

- The pooling of interest merger puts the two companies' assets together and combines all the accounts.
- The consolidation is when a new entity is formed and both the companies are bought and combined under the new entity.
- The purchase is when one company buys another. In the strictest sense, only when one of the companies survives as a legal entity is there a merger.

There are also several types of economic mergers:

- Horizontal Merger: When two companies that are in direct competition in the same product lines and markets combine.
- Vertical Merger: When a customer and company or when a supplier and company merge. Think of a cone supplier to an ice cream maker.
- Market Extension Merger: When two companies combine that sell the same products in different markets.
- Product Extension Merger: When two companies are selling different but related products in the same market.
- Conglomerate Merger: When two companies have none of the above attributes get together.

It is by now well-documented that most mergers disappoint, even in the best of times. No matter the industry, no matter the measure of success, more than 50 percent of all mergers fall short of their stated. Airline mergers are no exception; in fact, they have produced some spectacular failures. Add to this unfortunate record the unprecedented

body blows sustained in the wake of September 11th, and it's no exaggeration to say that the global airline industry is in crisis

Before engaging in an analysis of the M&A structure properly, it is important to assume that all corporations are acting towards the achievement of optimal performance. Although the latter may differ from one company to another, it is necessary to act as if there were a standardized comprehension of this optimum.

Take two players in the airline industry: United Airlines (United) and British Airways (BA). United, through its usual CI activities, is well aware of its industrial structure and the same goes for BA. If United comes to the conclusion, after careful analysis, that BA's best growth strategy, taking into account its cost structure, management orientation, previous moves, etc., is to start a no-frills, low-cost airline subsidiary, then United is well positioned to move a step further to adjust its own strategy. Meanwhile, BA can either take the decision to go ahead in the project as depicted by United or embark upon another strategy (form an alliance with another airline, start a new route or else). If it chooses the first option, United is prepared to face what it considers to be the best move possible by BA or its optimum. It can take appropriate countermeasures. Conversely, if the second option is chosen, United can either do nothing (because BA did not choose the optimum path) or engage in achieving the optimum. In all cases, the winner is the one who has learned to make the proper scenarios and react accordingly.

AIRLINE MERGER INTEGRATION

Nearly all airlines are reporting dramatic losses, capacity reductions, and huge staffing cutbacks. In the immediate term, airline senior executives will have to focus on cost reductions (both variable and fixed) and pressing cash management concerns. But, as they put out the more urgent fires, they need to start scouting out opportunities to pool resources, share costs with other carriers, and create organizations that can attract private capital. In fact, given the largely regional structure of the industry on both sides of the Atlantic and the events of September 11th, consolidation may be the only way out of the structural dilemma.

Integrating airlines is an enormous undertaking, one that many airlines misjudged in the past. They bought another airline and then underestimated the differences between the entities, the complexities of integration and the unintended consequences of their integration actions. Today the task is even more complicated. The financial pressures are greater, system integration is much more complex, and the airlines themselves are much bigger. More than ever, executives need to understand which areas can be attacked quickly to sharply reduce costs and realize near-term synergies and which areas can be integrated more slowly.

The Obstacles to Airline Merger Integration

Airline mergers tend to trip up for one of three primary reasons. Firstly, the combined company disregards the enormous complexities surrounding the whole labor dimension. Labor strife has been a major factor in delaying or destroying the benefits in many airline mergers. Sickouts, lost luggage, unanswered reservation lines, even aircraft sabotage have significantly increased the price tag of many airline acquisitions. Secondly, the acquirer does not fully understand the business model of the airline it is acquiring, specifically what makes it successful. While it may have targeted and celebrated the potential synergies the combined airline could exploit, the acquiring airline often does not expend the time or effort to get inside its target's operations and identify key success factors, best practices, and critical talent. In Europe, this is complicated by the unique cross-border challenges (e.g., cultural, political, language) that accompany acquiring a flag carrier in another market. Finally, as with mergers in any industry, many airline marriages fall victim to lapses in planning and execution. Too much of the pre-merger planning is done on the fly without preemptively determining how a change will affect customers, employees, and the ongoing operations of the combined airline. Systems issues are increasingly daunting as airlines attempt to integrate a complex mix of modern in-house systems, dated mainframe systems, and outsourced information technology.

Successfully merging two airlines and capturing the theoretical value of that merger is a major management challenge, and one that will only increase as airlines become more complex and more global. There is no one-size-fits-all recipe for successful merger integration. Comprehensive due diligence will inform early decisions, which then become the foundation of a rigorous integration planning process. Consequently, both organizations are ready to integrate priority areas immediately following the merger's close.

Airline Merger Integration Phases

There are three distinct phases in any merger integration effort.

Partner Selection Phase: You need to identify and assess suitable partners. The fundamental issue in selecting a partner is not, "Who is available now?" but rather, "What airline can help me build a platform for sustainable competitive advantage?" Ideally the merger should enable a carrier to: Offer a broader, deeper set of services to its customers, access an expanded customer base and realize significant efficiencies and economies of scale. Current conditions will complicate partner selection strategies. An appropriate partner will furnish obvious revenue and cost synergies. Carriers that operate complementary national, regional, or global networks with some overlap are ideal. From a sales and marketing perspective, it helps if prospective partner has a similar brand positioning, complementary frequent flyer and other customer benefits, and a sales organization that will integrate easily with other partner. While most airlines tend to focus on prospective partners that offer the greatest strategic, revenue, and cost synergies, there are other often-overlooked criteria to consider. Most mergers are failing in the implementation, so partners need to consider the costs and hurdles to implementation before select a merger candidate. To keep integration manageable, airlines should minimize potential labor strife and abbreviate systems integration time. That rationale favors choosing a carrier with a similar fleet, a complementary workforce in terms of seniority, and a comparable culture. The culture issue is obviously more profound in Europe where the differences lie not just in corporate culture but in national identity.

Pre-Merger Preparation Phase: You need to lay the groundwork for effective integration, taking into account the host of particularly sensitive issues in airline mergers (e.g., regulatory concerns, labor strategy). European oversight is complicated by issues of jurisdiction, international traffic rights and national security. However the deteriorating plight of many carriers may cause these overseers to adjust their criteria. It is generally acknowledged that consolidation may be necessary to prevent large parts of the airline industry from going under. Regulators need to revise their perspective and move from a route focus to a network focus. Airlines should further this shift by educating regulators about the urgency of their situation and the benefits that a stronger, consolidated airline industry could provide customers both business and leisure on a global basis.

The planning process for a merger integration starts small and early with a core integration team and a program office manned by a few select participants. This core team will draw on the talents of senior officers empowered to make critical early-stage decisions. As the merger passes through successive milestones — legal, regulatory, financial — the planning effort gains specificity as more information is shared. What started with one design team proceeds with multiple teams working in parallel, each led by a member of senior management. Teams should be staffed with full-time "stars" rather than part-time "understudies," and these individuals should be armed with specific and tangible objectives.

Labor disruptions are one of the most problematic aspects of airline mergers. Labor will oppose changes which affect their pay or career progression negatively, two likely outcomes when you merge seniority lists. So far, no miraculous solution has been found. However, a few key principles are followed:

- Bring in labor as early as possible, recognizing confidentiality and deal constraints
- Let the pilots own the pilot integration issue
- Create clear incentives for finalizing the deal and smoothing integration
- Ensure that the cost of the incentives are covered by synergy gains in flight operations

Merger Integration Phase: Finally, there's the merger integration work the thousands of decisions that need to be made on everything from the message in the in-flight magazine to the customer's experience on Day 1, the 100 days that follow, and throughout the course of the integration. The questions posed in Exhibit 1 will each be addressed in turn. Once the Day 1 issues have been addressed and resolved, airlines can adopt a more phased approach to integration. This approach yields the earliest possible revenue and cost synergy wins, while maintaining safety and facilitating operational integration. Most of the revenue synergies will stem from the integration of customer systems, which should be a top priority. Integrating customer systems allows passengers to experience "one airline," even while two separate operations continue to co-exist behind the scenes.

Table 1 Airline merger integration

Airlines in Transition	Connected Airlines	One Airline Integrating Operation	One Airline: One Face	"Better" Airline

<ul style="list-style-type: none"> • Separate networks (two CRS codes) • Separate products • Two service experiences • Partial recognition for frequent fliers • "Look and feel" in transition • Quick-hit cost synergies captured (e.g., 	<ul style="list-style-type: none"> • Some consolidation of facilities (gates, reassignment of some maintenance work, ticket offices) • Integrated network, pricing, scheduling • Cross-airline service • Harmonized frequent flier program • Selective on-board product similarity and same "look and feel" • Selective similar "look and feel" • Patches and workarounds to link customer systems • Start of aircraft transition work • Combined sales force and CVAs 	<ul style="list-style-type: none"> • One network, one CRS code • Customer systems integration • Single mileage program • Harmonized service • Increasingly common "look and feel" • Closure of some surplus facilities • Consolidation of other facilities • Integration of maintenance facilities • Fleet transition in progress • Most staff departments integrated 	<ul style="list-style-type: none"> • Single standard operating procedure • Single face • Single product • Consistent service • Single "look and feel" • Single organization • Operations systems integration 	<ul style="list-style-type: none"> • New services and products • Single culture • Next level of performance
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Three Mega Carriers Merger in Europe

Cost efficiency can also be achieved by mergers or acquisitions. This consolidation phase has started mainly in Europe between the full services carriers but also between low cost carriers, and it could reshape the national carriers' scope and increase competition between US, EU and Asia carriers. Indeed consolidation can yield major benefits to airlines:

- First, operational synergies can provide opportunities for cost rationalization, from scale benefits in procurement, sales, maintenance, and airport operations to sharing overheads and information technology systems.
- Secondly, network synergies can reduce costs and improve asset utilization by eliminating of redundant routes. Increased revenues can be generated through pricing harmonization achievable thanks to the increased market share and improved load factors.
- Third, consolidation can improve carriers' competitive positions by providing a platform for growth, greater negotiation power with partners, and benefits from improved capital management. Therefore, consolidation would usually provide the greatest scope for value creation.

The acquisition of KLM Royal Dutch Airlines by Air France in 2004 has shown its rivals what can be achieved with greater economy of scale in the highly fragmented industry. After integrating its two networks and hubs, Air France- KLM SA has reached a growing portion of European market share, particularly among high paying business travelers on long haul flights. Lufthansa followed in 2005 with the smaller acquisition of Swiss International Air lines. The success of that deal has made Lufthansa open to the possibility of further acquisition, as its executives have declared. Iberia declared itself to be open to a potential acquisition and received a proposal from British Airways which already owns 10 percent of Iberia. British Airways could face further competitive pressure from Lufthansa. Scandinavian Airlines System planned to sell its 20 percent share in British Midland Airways (bmi). Lufthansa already owns 30 percent shares of bmi and it will most probably become the client of SAS to reach 50 percent ownership of bmi. Lufthansa could gain market shares by buying a large stake Virgin Atlantic Airways Ltd. Singapore Airlines is looking for a buyer of its 49 percent stake Virgin Atlantic.

Table 1 illustrates that British Airways, Lufthansa and Air France are the principal full services carriers in the EU market. These three carriers are responsible for over half the ASK and over 40 percent of weekly flights operated by the EU network airlines. If KLM's operation is added to that of its owner, Air France, or Swiss operation is added to that Lufthansa, then 63,5 percent of ASK are performed by the top three carriers. The best of the EU's airlines offer much smaller shares of capacity. In the coming year, a series of deals could result that may even leave the European airlines industry built around the region's three biggest carriers: British Airways PLC, Deutsche Lufthansa AG and Air France-KLM SA. This could put the European full service carriers, even competition with US carriers that have expanded their international network in recent years to escape from competition from the low cost carriers in the US domestic market.

Table 2 Largest network airlines in EU by share of ASK and speculation about mergers

%ASK in 2004		in 2006		Mega-carriers (?)	
British Airways	20.4	Air France-KLM	22.5	Lufthansa Swiss Austrian Virgin Atlantic	31.2
Lufthansa	17.8	Lufthansa-Swiss	20.6	Air France KLM Alitalia	27.4
Air France	14.9	British Airways	20.4	British airways Iberia	27.2
KLM	7.6	Alitalia	4.9	Other	14.2
Iberia	6.8	Virgin Atlantic	4.0		
Alitalia	4.9	SAS	3.8		
Virgin Atlantic	4.0	Austrian	2.8		
SAS	3.8	Other	21.0		
Swiss	2.8				
Austrian	2.8				
Other	14.2				

ANALYSIS OF TURKISH AIRLINES

Turkish Airlines is a rising force in the European and Middle East aviation industry, capturing the interest of investors, alliance partners and rivals. The fast-growing carrier is not only increasing its size at a time when the majorities of its European counterparts are shrinking, but is profitable whilst doing so. After reporting the third largest net profit and seventh largest operating profits in the aviation industry in 2008, the airline's revenues and profits are expected to increase from these bases in 2009. Investors are clearly delighted with the airline's growth trajectory, with Turkish Airlines' stock surging 425% in 2009 –the biggest gain by far among carriers tracked by The Centre globally last year.

Strong Position in Markets It Serves

Turkish Airlines is not only a substantial full service carrier in its own right, but also maintains a solid position at the low cost end of the market, domestically through AnadoluJet and its Lufthansa JV in SunExpress. This reinforcement allows the flag carrier to focus on its core, full service role, and to continually grow its position in the expanding Eastern European and Middle East and central Asian markets. At present, Turkish really appears to be on a roll. Most of the key ingredients line up to make strengths and opportunities the dominant forces in the carrier's landscape. Even its weaknesses are little more than an inability to grasp opportunities fully (such as for example under-use of the potential of Star membership code sharing). In some ways the scenario almost appears too good to last. But most of the right building blocks are now in place for sustained and profitable growth in what is still in many ways an underexploited market.

1. Expanding home market economy and favorable demographic: Turkish Airlines has a unique growth opportunity. With a population of 75 million, a dynamic economy, a relatively large geographical area and increasing disposable income among its population, Turkey's air travel demand continues to grow, at a time when the majority of Europe is experiencing sharp reductions. The main economic concern at present is a still high level of inflation, at around 6.5% in 2009 - but down from previous heights.

2. Strategic geographic position: The country is attractively geographically positioned, located only three hours flight time from 50 different countries and its unique position. Turkish Airlines benefits significantly from the combination of its strategically valuable geographic position and its Istanbul hubbing capability.

3. Revenues and profits on the rise: Turkish Airlines continued to grow in 2009, with the carrier stating it expects to slightly exceed its 2008 revenue figure of EUR3.2 billion in 2009. In the nine months to Sep-2009, the carrier reported an operating profit of EUR285 million, a 17% year-on-year increase, on stable revenue of EUR2.4 billion.

4. Substantial cost advantage over rivals: During the nine months ended Sep-2009, Turkish Airlines claims it was the "most cost efficient among its European Peers", with a cost per ASK of EUR 5.05 cents, a 19% year-on-year improvement and for the lowest CASK at the airline in at least the past five years, aided in part by lower-than-average personnel and fuel costs.

5. A beneficial revenue-expense profile: Also beneficial for Turkish Airlines is the advantage that its income is diversified among the major currencies, to a much major greater degree than most airlines, minimizing exposure risk from both the income and expenses side. The strength of the euro against the US dollar over the past year has been a major contributor, as the TRY and the US dollar together account for 80% of expenses; meanwhile, 40% of revenues are in Euros and only 13% of expenses.

6. Rising market share: Turkish Airlines also experienced continued strong traffic growth in 2009, going against the European trend, handling 26.8 million passengers. Turkish expects this to increase by 49% to 40 million passengers p/a in 2012.

7. Strong domestic presence: Turkish Airlines currently operates to 37 domestic destinations. Its domestic operations accounted for 22.5% of total revenues in the nine months ended Sep-2009. Turkish Airlines, excluding subsidiaries, currently has a 67% domestic market share, and a 59% international market share (approximately 67% including subsidiaries). This is a very high penetration by industry standards and one of Turkish Airlines' core strengths.

8. Subsidiaries to spread risk generate income and raise entry barriers: Turkish Airlines has a number of subsidiaries to spread the risk of operations and discourage new entry by would-be rivals. Most of its subsidiaries are currently profitable (see table below). In particular, the planned profitable expansion of THY Technic offers both valuable diversification (in a market segment with considerable upside and limited local competition) and a highly profitable revenue stream.

9. Star Alliance membership and close relationship with Lufthansa: Turkish Airlines, in late 2009, commented that the future of the airline belongs with international alliances that will enable the carrier to compete in terms of its network offering and pricing. The carrier commented, "most airlines will have to be part of an alliance in order to survive in the future because if you are not a member of an alliance it is very hard to compete with other alliances that offer incredible benefits".

Expensive Fleet Structure and Fallen Aircraft Utilization

1. Higher risk organic growth strategy: In early Jan-2010, Turkish Airlines CEO, stated he believes now is the right time to expand, despite the lingering impacts of the global financial downturn. The Star Alliance member currently operates a network of 119 international and 37 domestic routes. It has set an ambitious target of eventually becoming the largest carrier in Europe, by operating to every major city in the Continent.

2. Massive fleet growth to fund: The push is reflected in Turkish Airlines' massive aircraft order book, which will have a considerable financial drain on the airline in coming years. The carrier disclosed heavy Pre-Delivery Payments in conjunction with its fleet growth plan, totaling approximately USD900 million in 2009. Turkish Airlines, which currently operates a fleet of 130 aircraft, stated that it would purchase 105 aircraft according to its Fleet Plan (valued at approximately USD6 billion) for 2009-2023.

3. Fleet flexibility premium: With just 7% of its fleet currently owned, Turkish Airlines is paying a premium for the amount of flexibility it enjoys through its high level of leasing (annual lease payments of well over USD500 million). Fleet ownership is around 50% in industry practice. Carriers like Turkish and others have had low levels of fleet ownership, but are now moving to reduce their reliance on leasing.

4. Decreasing fleet utilization: In the nine months ended Sep-2009, Turkish Airlines' fleet utilization decreased, with average utilization down by 8% for wide-bodied aircraft and 2% for medium-haul aircraft. This suggests recent fleet expansion rates have been overly ambitious, with Turkish slowing rates of fleet deployment. With rapid capacity growth planned again in 2010, load factors could again come under pressure and fleet utilization rates could fall further in response, reducing the overall efficiency of asset deployment.

5. Under-utilizing the potential of a strong alliance: Despite its commitment to an alliance strategy, in practice, Turkish Airlines' aggressive organic expansion push is still out of alignment with its alliances mantra. A relative newcomer to the alliances fold, Turkish is under-utilizing its Star partners' networks to/from and beyond Turkey.

Turkey – A Market of Opportunities

1. A growing market, despite the economic crisis: According to EUROCONTROL, IFR movements in Turkey in 2009 increased 4.1% year-on-year, to be one of the few European countries to experience growth in the period, while several major nations saw reductions of 7% and more.

2. Cargo growth upside potential is large: For the first nine months of 2009, Turkish Airlines' total cargo traffic grew by 9% over the same period in 2008. Coming against what was a "catastrophic" decrease in AEA airline cargo traffic by mid-2009, this was a remarkable result. For most other airlines globally, cargo is still contracting. European airlines again measured double digit reductions year on year in the latest month for which data is currently available, Oct-2009.

3. A popular tourism destination: The presence of world class tourism attractions and the existence of 90 paved airports in the country (of which over 40 are catered by regular services by the country's airlines, led by Turkish Airlines and including Pegasus Airlines, Sun Express, Anadolu Jet, Onur Air and Atlas Jet) makes Turkey an increasingly attractive tourism and business destination. The World Tourism Organization (WTO), in its "World Tourism Barometer", stated that Turkey remains one of several countries reporting "encouraging" tourist arrivals in the eight months to Aug-2009. Turkey ranked ninth in the world in terms of tourism revenues in 2008, according to the WTO, with revenues reaching USD22.0 billion, an 18.7% year-on-year increase. In terms of international tourism arrivals, Turkey ranked eighth, with 25.0 million international tourism arrivals, a 12.3% year-on-year increase.

4. Benefiting from liberalization policies: Turkish Airlines, in particular, continues to benefit from the Turkish DGCA's liberalization focus, with the government planning to continue to enter bilateral agreements with other countries in 2010, following a record number of agreements in 2009.

5. EU membership continues to be elusive: Turkey, meanwhile, is one of three countries (including Croatia and the Former Yugoslav Republic of Macedonia) that have applied for EU membership, with membership to potentially create numerous opportunities for the aviation/tourism industry.

6. Government to invest in transportation infrastructure: The Turkish Government also plans to invest USD350 billion over the next 25 years to improve transportation and communications services. As part of this, the Turkish Government is reportedly considering the construction of a third airport in Istanbul, to meet growing passenger traffic. The government is also planning to construct a second runway at Istanbul Sabiha Gokcen International Airport, with another four airports identified for refurbishment projects.

Low Cost Carriers and Currency May Challenge Profitability

1. Low cost carriers (LCC) increasing their presence: After bursting onto the scene five years ago, Turkish LCCs have increased their domestic market share to 21%. The segment's international share has risen from 1% in 2003 to 7.5% currently. However, while LCCs are a threat, Turkish Airlines has an ownership presence in two of the three entrants, namely SunExpress and Anadolujet (Anadolujet is 100% owned by the carrier, while Sun Express is a 50:50 JV with Lufthansa), significantly reducing the threat of LCC competition. These LCCs are more than just a defensive weapon for Turkish Airlines. They enable the carrier to focus on its core business operations, while boosting group traffic, both domestically and internationally, through these fast growing subsidiaries.

2. Currency shifts may inhibit profitability: Just as Turkish Airlines has benefited from the highly valued euro since 2008, notably against the US dollar this equation could shift adversely. The carrier generates a significant portion of its revenues in euro, while the US dollar accounts for a disproportionate amount of its costs. As noted previously, 80% of Turkish Airlines' costs are in its local currency and US dollars, while 40% of revenues (only 13% of costs) are in euro. This has been a positive for THY in during 2009, but this may change.

CONCLUSION

Turkish Airlines is unquestionably one of the brightest stars in the region, enjoying profitable growth and compelling expansion opportunities. But the dream run could be ending, as the airline steps out of its niche in pursuit of aggressive organic growth. A rapid build-up of new long-haul routes will take time to mature and could dampen future earnings. Its expansion agenda is also increasingly pitting Turkish against the likes of Emirates, Qatar Airways and Etihad Airways in many markets, which has yield implications going forward. Its geographic position means Turkish is also less able to leverage the benefits of extensive hub code sharing with its Star Alliance partners, which means Turkish must continue to grow its network with its own metal – a high cost and riskier option. Turkish Airlines has been strongly dependent on the leasing market, although this strategy is now changing, which will also dramatically change its financial profile in the years to come. A significantly heavier debt load is ahead, which could also eat into earnings. Turkish Airlines has undoubtedly been an investors' paradise in recent years. But the airline's mid-term agenda looks more like a bankers' paradise and a tougher competitive grind for the airline's management. The carrier has had a remarkable year in 2009, while most others around it have faltered. There looks to be the momentum to keep this going well into 2010, if not beyond, but from a position of such dominance there will be a feeling that consolidation, as opposed to further rapid expansion, may be a safer strategy. Overall however, Turkish Airlines appears very well-positioned to tackle the challenges –and opportunities – that lie ahead.

The best way out of the airline industry's current predicament is to embark on a new wave of consolidation, one that will hopefully be facilitated by a fresh interpretation of regulatory restrictions in both the United States and Europe. Turkish Airlines should heed the following guidelines as they consider potential mergers in the months ahead:

- Secure a good **merger partner** who offers a pathway to sustainable competitive advantage through high cost and revenue synergies and/or low integration hurdles and expenses.
- Take advantage of possible revisions to antitrust rules in the post-September 11th market environment that could help mitigate **regulatory risk** in the near term.
- Jump starts the merger integration process with a balanced, comprehensive **program structure** and strong top management involvement in pre-merger preparation.
- After Day 1, a **phased approach** to integration will yield the earliest possible revenue and cost synergy capture, while still maintaining safety and facilitating operational integration.
- Because **labor** will oppose mergers that affect their pay or career progression, put in place mitigating agreements prior to announcing a merger, if at all possible.
- Focus on retaining and attracting corporate accounts and frequent flyers immediately. Provide **as much of a single face to the customer** within the first 100 days as possible.
- Develop a **migration plan** for top management and employees that retains key talent and knowledge — and remember to communicate.
- Phase **operational integration** to achieve quick wins with bottom line impact while transitioning fleets and maintaining operations in a more gradual, structured fashion.
- Ensure a smooth and rapid integration into existing **alliances** by establishing a dedicated team and a communication and transition plan.
- Invest in **systems integration** early on, given the long lead times involved. Integrated systems will be key to conveying a single face to the customer.
- To ensure ongoing value generation, under-promise and over-deliver, focus on employee issues, and seize the opportunity to create a better airline.

Consequently, before engaging in an analysis of the M&A structure properly, it is important to assume that all corporations are acting towards the achievement of optimal performance. Although the latter may (and in most cases will) differ from one company to another, it is necessary to act as if there were a standardized comprehension of this optimum. The hope of every merger is that there will be a synergy making the whole of the two companies greater than the sum of the two. Sometimes it works; sometimes it doesn't.

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MEASURING RETAIL EFFICIENCY

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ABSTRACT

Measuring retail efficiency is important, especially under current economic conditions. The aim of the paper is to propose a model which incorporates multiple input measures to determine retail efficiency. This is done by introducing media efficiency and operational efficiency as concepts, and how they are used to determine retail efficiency. Two leading grocery chains were used to test the model. The chain that was media efficient was determined to be the most retail efficient and these findings were confirmed using DEA analysis.

INTRODUCTION

Due to increased competition, efficiency has become important for all organisations (Seller-Rubio & Más-Ruiz, 2009; Lusch & Moon, 1984). By implication, this also applies to all categories of retailers. Based on a survey of more than 50 studies spanning 30 years, Bonoma and Clark (1988) conclude that the most popular measure of marketing performance is efficiency, which is operationalised as an output-to-input ratio. Efficiency in all areas of retailing has been a focus of research over an extended period. In fact, attempting to increase productivity is regarded as something that is not new (Lusch & Moon, 1984).

Retail efficiency has been the focus of numerous studies undertaken in diverse retail settings including the retail food industry (Seller-Rubio & Más-Ruiz, 2009; Barros & Alves, 2003; Kamakura, Lenartowicz & Ratchford, 1996; Ingene, 1982) and the post office as a retail setting (Borenstein, Becker & do Prado, 2004). Further, the studies of Keh and Chu (2003), Donthu and Yoo (1998) as well as Thomas, Barr, Cron and Slocum (1998), have attempted to evaluate retail efficiency, specifically using a Data Envelopment Approach (DEA). Measuring advertising effectiveness was also the focus of the studies of Färe, Grosskopf, Seldon and Tremblay (2004) and Luo and Donthu, (2001), and specifically through the use of DEA (Cheong, 2006). However, little research has been done into the effect of the marketing mix on retail productivity (Lusch & Moon, 1984) and into the role of the marketing communication mix aspects on the efficiency of a retailer.

This paper seeks to link widely-acknowledged and used operational evaluation techniques to marketing communication aspects in order to create a broader view of retail efficiency. The discussion that follows examines media efficiency, operational efficiency and retail efficiency, and then proposes a conceptual model. The paper concludes with an evaluation of two South African retailers using this conceptual model.

THE NATURE OF EFFICIENCY

Much has been written in the business literature concerning efficiency, effectiveness and productivity. In many cases, these terms have been used interchangeably, which has added to the confusion regarding their usage (Seller-Rubio & Más-Ruiz, 2009). Efficiency has been described as the ratio of outputs to inputs (Cheong, 2006; Luo & Donthu, 2001). It is also referred to as the minimisation of resources that an organisation must apply in order to attain a specific level of desired changes (Dibb, Simkin, Pride & Ferrell, 2006).

In the context of the retail sector, it has been suggested that retail productivity studies are more accurately described as efficiency studies (Parsons, 1992 in Thomas et al., 1998). The perspective of the authors is to use the productivity perspective thus linking inputs and outputs associated with the provision of the specific service.

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MEDIA EFFICIENCY AND OPERATIONAL EFFICIENCY

Marketing effectiveness in the case of a retail store includes all activities that are necessary to attract customers into the store (Ingene, 1984). The efficiency with which these are employed is referred to as “*media efficiency*”. The other side of the productivity coin examines the marketing efficiency, which includes the way in which the output is created. These are activities that are not needed in the absence of sales (Ingene, 1984), and include the workload, space and employee activities. In the discussion that follows, these aspects are regarded as the *operational efficiency* of the outlet.

Media efficiency

Organisations spend money on advertising in various media without always evaluating the efficiency of the advertising expenditure. It has been suggested that “half of my advertising doesn’t work. The problem is, I don’t know which half” (Wanamaker, in Motloun, 2008). With advertising expenditure, there is always a degree of wastage, and it has been suggested that this could amount to 407% of net income (Cheong, 2006; Luo & Donthu, 2001). Little research has been done on developing and exploiting methodologies to determine whether advertising is used efficiently in order to reduce possible advertising wastage in the future (Luo & Donthu, 2001).

The relationship between advertising budgets and sales and profit in advertising is not clear, and the complexity of the measurement cannot be underestimated. Previous studies (Cheong, 2004; Luo and Donthu, 2001) have identified various inputs (such as spending and length of the campaign) and outputs (such as sales, recall and earnings as well as adspend). For this model, adspend (investment) was used as the input and sales as the output.

Two suggested evaluation ratios can be used to evaluate advertising. One of these methods is the Ad-spending-as-a-percentage-of-sales ratio (Neff, 2007; Lusch & Moon, 1984), also known as the advertising-to-sales ratio (Lusch & Moon, 1984). This ratio measures the revenue received from every currency unit invested in advertising (Anon, 2009a). The formula would be expressed as advertising expenditure/sales (Anon, 2009b). In examining these figures, the lower the ratio, the more effective the advertising is perceived to be. The alternative evaluation of advertising efficiency is the Media Efficiency Ratio (MER) which is the total sales/advertising expenditure (Anon, 2009c), and is described as a “snapshot” of an advertisement’s success (or failure). It is this ratio that the authors propose to evaluate media efficiency.

Operational efficiency

Operational efficiency measures the efficiency of the trading activities of the specific outlets, linked to labour, space and current assets. Further, it is important to determine relative efficiency, rather than viewing efficiency an absolute term (Donthu & Yoo, 1998), for which DEA analysis makes provision. Various inputs and outputs have been suggested as possible ways to measure operational efficiency. A number of components are used in the model:

- Employees (labour productivity): This could use the evaluation of employee numbers and employee-related information such as man-hours and employee wages (Sellers-Rubio & Más-Ruiz, 2009; Barros & Alves, 2003; Lusch & Moon, 1984). It has further been suggested that labour productivity is the most flexible of inputs, while also being controllable (Lusch & Moon, 1984). Various measures of employee and employee productivity have been used, including gross-margin per man-hour (Ingene, 1984), number of employees (Bucklin, 1978 in Good, 1984) and wage rates (Lusch & Moon, 1984).
- Space (m^2): This refers to the floor space that is used to sell the specific product (Good, 1984). It has been suggested that floor space relates to the capital invested (Good, 1984) and that space is the key resource in

planning the assortment of stock to be carried (Mason, Mayer & Wilkinson, 1993). Traditionally, mention is made of sales per square metre (m^2) as a reflection of efficiency.

- Current assets: Capital and other financial measures have been used in previous studies. Current assets refer to these items that can be converted into cash within one year, and includes debtors, inventories and cash balances (Cronjé, du Toit & Motlana, 2000). Other researchers have suggested the use of inventory rather than capital or current assets. The approach of the authors is the use of current assets in order to provide a broad perspective of inventory-related activities.

Retail efficiency

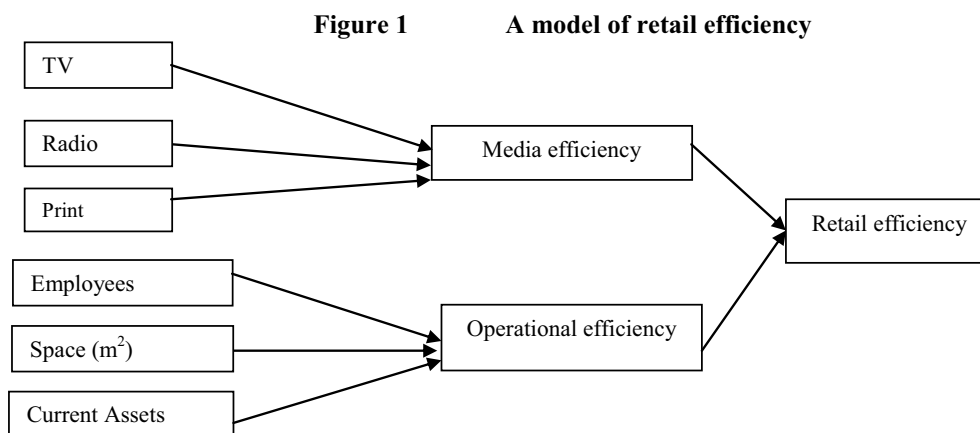
Retailers experience pressure to be efficient and produce good results (Keh & Chu, 2003), despite not being responsible for the actual production of the items sold to final consumers. It has been suggested that efficiency is even more important for retailers due to the nature of their business (Seller-Rubiro & Más-Ruiz, 2009; Mason et al., 1993) as there are no intermediaries in the process that mitigate the value provided. Retailers are continually looking for ways in which they become more efficient in their functioning (Ratchford, 2003).

Measuring retail efficiency

Early definitions of efficiency focused on labour productivities, due to the importance of labour to these organisations (Thomas et al., 1998). This resulted in the measurement of labour productivity (focusing on the employees in the retail store). Other suggested factors include the usage of space as well as merchandise assortment, location, pricing and promotion (Barros & Alves, 2003; Thomas et al., 1998; Lusch & Moon, 1984). Other suggested methods include sales per square foot or metre (space and location productivity), sales per employee (labour productivity) and sales per transaction (merchandising productivity) (Stern et al., 1996). Traditional measures include determining the contribution margin (Mason et al., 1993), as well as the Gross Margin Return on Selling Space (Mason et al., 1993). Consequently, there is no widely accepted definition of retail efficiency or aspects related to its measurement (Donthu & Yoo, 1998; Good, 1984).

RETAIL EFFICIENCY: A CONCEPTUAL MODEL

A model has been developed from the literature (as discussed) that seeks to evaluate the efficiencies of a specific retail chain as reflected in Figure 1. Each of the components has been derived from previous studies into both organisational efficiency and retail efficiency.



Adapted from Barros and Alves, 2003; Seiford & Zhu, 1999; Thomas et al., 1998; Athanassopoulos & Thanassoulis 1995; Ingene, 1984; Lusch & Moon, 1984.

The proposed model comprises three key input components namely Media efficiency and Operational efficiency as well as Retail efficiency, which is a measure of both the media and operational efficiency of the chain.

TESTING THE MODEL

The sample used to test the model was two prominent, competing retail chains in South Africa (Company A and Company B). Data for a five-year period was selected. The financial data used was restricted to information available to the public as published in their annual reports, thus affecting the period selected. The data used included adspend on all media, space, employees and current assets.

Methods used in testing the model

Methods used in testing the model included ratios identified in the literature and Data Envelopment Analysis (DEA).

Figure 2 Formulae associated with the model

Media efficiency ratio (MER)	= Sales/Adspend (media spend)
Operational efficiency ratio (OER)	= Sales/Operational expenses
Retail efficiency ratio (RER)	= Sales/Adspend x Sales/Operational expenses

DEA is an operations research-based performance evaluation methodology which can be used to measure relative efficiency at store level, and as a managerial tool to improve retail productivity. DEA does not impose the assumption of any functional form on the input-output correspondence (Banker, Charnes & Cooper, 1984). This is a useful feature, as in our case the exact relationship between inputs and outputs was not known. The only assumptions needed for DEA are monotonicity and convexity of the production possibility set (Banker, Charnes & Cooper, 1984), as were confirmed as acceptable in our study.

FINDINGS

Media efficiency of the sample retailers

Initially, the audited adspend of the two chains over the five-year period was analysed using the ratios and ranked according to this analysis. It can be seen that Company B is ranked in the top five places, while Company A holds the bottom five places. The detail is provided in Table 3.

Table 3 Media efficiency of the retailers

Organisation Year	MER	ME Ranking
A2001	110.4095	10
A2002	112.2763	9
A2003	123.7911	6
A2004	117.9537	8
A2005	120.5482	7
B2001	218.6710	5
B2002	241.9943	4
B2003	256.0728	3
B2004	299.9662	2
B2005	310.9593	1

Operational efficiency of the sample retailers

The data in the financial reports was analysed using the ratios in Figure 2. From this analysis, it can be seen that Company A holds four of the five spots in the time period (not in 2003). The ranking of Company B is that in four of the five periods, it is ranked in the bottom half, which is the inverse position of the media efficiency analysis. The detail is provided in Table 4.

Table 4 Operational efficiency of the retailers

Organisation Year	OER	OE Ranking
A2001	6459.4944	1
A2002	718.6527	5
A2003	881.6266	9
A2004	692.2122	3
A2005	708.8512	4
B2001	674.1502	2
B2002	761.8954	6
B2003	808.3006	8
B2004	803.6306	7
B2005	891.7571	10

Retail efficiency

From the calculation of media and operational efficiency, the retail efficiency of each retailer was determined, using the formula in Figure 2 and DEA analysis. From this, it can be seen that Company B is ranked in the top five places on the basis of its retail efficiency, while Company A holds the bottom five places. Further, DEA analysis indicates that Company B was efficient over the entire period, which was not the case with Company A, which was only efficient in two years (of the five-year period). The findings are presented in Table 5.

Table 5 Retail efficiency of the retailers

Organisation Year	MER	ME Ranking	OER	OE Ranking	RER	RE Ranking	DEA efficiency	DEA Ranking
A2001	110.4095	10	6459.4944	1	0.1719	6	0.8799	10
A2002	112.2763	9	718.6527	5	0.156	9	0.9036	9
A2003	123.7911	6	881.6266	9	0.1404	10	1.0000	1
A2004	117.9537	8	692.2122	3	0.1704	7	0.9853	8
A2005	120.5482	7	708.8512	4	0.1701	8	1.0000	1
B2001	218.6710	5	674.1502	2	0.3244	3	1.0000	1
B2002	241.9943	4	761.8954	6	0.3176	4	1.0000	1
B2003	256.0728	3	808.3006	8	0.3168	5	1.0000	1
B2004	299.9662	2	803.6306	7	0.3733	1	1.0000	1
B2005	310.9593	1	891.7571	10	0.3487	2	1.0000	1

DISCUSSION

In the case of both companies, the MER rankings are the opposite of the OER rankings, which impacts on the overall RE rankings and the associated DEA efficiencies and rankings. This basic efficiency analysis determined indicates that as a chain, Company B is more efficient than Company A. The effect of media productivity can be seen on the overall retail efficiency. The rankings on this aspect reflect those of the overall retail efficiency. This appears to indicate that the media efficiency contributes to the retail efficiency of the Company, placing an emphasis on the media spend decisions made by the Company.

Managerial implications of this research are that management can analyse their actions over the period and determine possible effects on the efficiency. This could include the number of staff employed in the company, and how if they had acted differently, it could have impacted the efficiency of the Company. They can also analyse their adspend to determine whether this was efficiently used, and how changes can be made in the current time to increase efficiency.

There are a number of *limitations* associated with the model. Data selected was for a previous period (which has passed), meaning that neither of the companies can change their actions. Further, use was made of public data which does not always cover the same time period. The cases were selected due to the availability of data, and this may not replicate in other retail companies or in the case of individual outlets.

For *future research*, further analysis of individual stores can indicate which are relatively efficient (as indicated by DEA analysis), and which can thus be regarded as best practice stores. The model also needs to be tested empirically among other retailers. Once this has been done, the model can be expanded to investigate the link to the ROE for stakeholders.

CONCLUSION

The purpose of this paper was to investigate the issues associated with the measurement of retail efficiency, and specifically how this can be done in the retail context. The literature indicated a number of inputs and outputs that can be used in the evaluation of retail efficiency, and these were used to propose a conceptual model. The analysis of two retail chains indicates that Company A is media efficient, while Company B is operationally efficiency. Overall, Company A has retail efficiency, which is reflected in the DEA rankings over the period.

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ONLINE CUSTOMER COMPLAINTS AND DEFAMATION

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ABSTRACT

Customer dissatisfaction occurs when a customer believes that his expectations are not met by the organization. Some customers' response to this is to ignore it, while yet others post online complaints. The purpose of the study was to examine a number of online complaints made concerning a motor manufacturer to determine whether they met the requirements for defamation. Analysis of twenty-nine comments indicated that while the majority could not be regarded as defamatory, five had elements of defamation contained in them. This study indicates that this is an area of law that must develop to contend with the developments in the online environment. .

INTRODUCTION

Customers respond differently to customer dissatisfaction. Some may choose to ignore their dissatisfaction and exit from the service provider, others communicate this to the organization responsible, while others engage in negative word-of-mouth or revenge behaviour.

The accessible and anonymous character of third-party websites encourages customers to express their dissatisfaction without giving much thought to the legal ramifications attached to the posting of the comment. In terms of section 16 of the *Constitution of the Republic of South Africa*, Act 108 of 1996, customers hold the right to freedom of speech.

As far as could be ascertained, there are not many South African judgments handed down on the matter of online defamation. This may be attributed to *inter alia* the fact that the South African law is still being developed to align it with technology, that it may be difficult to prove that the venting on third-party websites amounts to online defamation, or that an entity may decide to mitigate the possible damage caused to its reputation. There has also been little published research on the matter of online defamation in an international context.

This paper will initially investigate the nature of customer dissatisfaction, and how this gives rise to various types of complaint behaviour. Following this, there will be a discussion of the nature of defamation, as well as South African case law which can clarify the position in the online context. A number of online complaints regarding a specific motor vehicle manufacturer will be selected, and the findings of an analysis of these complaints will be presented.

RESEARCH QUESTION

When posting an online complaint, the customer may make comments concerning the organization that may contain elements of defamation. The objective of this research is to determine whether a dissatisfied customer posting an online complaint on a third-party website can incur civil liability if the comments are defamatory. The purpose of this study is thus to analyse online complaints posted on a third-party website to establish if the comments are defamatory resulting in the consumer incurring civil liability.

THE NATURE OF DISSATISFACTION AND CUSTOMER COMPLAINTS

Underlying customer satisfaction are the expectations and perceptions that the customer has about the experience. When a customer has a perception that is lower than his expectations, it is said that he has experienced negative disconfirmation (Hoffman & Bateson, 2006:304), resulting in dissatisfaction. Extreme dissatisfaction may cause the customer to rage against the organization. Rage can be seen as a range of emotions including fury, wrath, disgust, contempt and resentment (McColl-Kennedy, Patterson, Smith & Brady, 2009:222). (Milder forms of anger include being upset, annoyed and agitated.) In many cases, the rage is out of line with the magnitude of the service failure (Grove, Fisk & John, 2004:42).

Some dissatisfied customers do not exhibit any behaviour or complain about their treatment from an organization. It has been suggested that up to 96% of dissatisfied (unhappy) customers do not complain to the organization (Hoffman & Bateson, 2006:303). These customers may exit the organization or may even stay, specifically when there may be no other service providers in a specific area or of a specific product (Zeithaml, Bitner & Gremler, 2006:219).

Customers who do complain can exhibit various behaviours which include verbal (letters and emails) and non-verbal communication (punching) and other negative actions such as exiting or negative word-of-mouth. In an extreme form, it has been suggested that the customer may try and exact revenge on the organization (McColl-Kennedy et al., 2009:222). Aggravated customers may thus display a behaviour that belongs in one of six categories identified by Huefner and Hunt (2000). The range of behaviours includes personal attack, stealing and trashing.

Lowering levels of patronage

This is known as exiting, as the dissatisfied customer stops supporting the organization by no longer buying the product or shopping at a specific store (Hoffman & Bateson, 2006:370). This may be a conscious (or an unconscious) decision that the customer makes to never patronise the organization again.

Voicing and venting

This is regarded as the verbal communication that the dissatisfied customer has with the organization regarding the service situation (Hoffman & Bateson, 2006:369). One way for the customer to express his dissatisfaction or emotions is by venting. Venting is defined as “giving expression to or giving an outlet to emotions” (Oxford Dictionary), and in this situation is linked to the frustration with the service experience. While venting (especially in an online environment), the customer may say things that are defamatory.

Spreading negative word-of-mouth

Negative word of mouth involves telling other people such as family and co-workers about the poor service experience (Zeithaml et al., 2006:220). Negative word-of-mouth is particularly harmful to the organization as it can create a negative impression of the organization among non-customers. It has been suggested that negative word-of-mouth in an online environment may be an example of sabotage and revenge-seeking actions (McColl-Kennedy et al., 2009).

Retaliating (revenge, including sabotage and legal action)

Revenge is regarded as the “retaliatory feelings that customers feel toward a firm, such as the desire to exact some harm on the firm, typically following an extremely negative purchase experience (Bechwati & Morrin, 2003 in Haithem, Chebat & Roy, 2009). Revenge may thus be a consequence of perceived harm or loss. It has been suggested that revenge is a coping behaviour and that it may not be rational (Haithem et al., 2009).

SOURCE FOR ONLINE COMPLAINTS

Hellopeter.com was developed by Peter Cheales in 2000, and it has become the largest customer service website in the world and is regarded as “the most powerful customer service website in the world” (http://www.petercheales.co.za/about_content.htm). This website is a major outlet for customers to log their complaints, and estimates indicate 327,000 visitors per annum. This forum is thus a mass distributor of information to consumers.

THE NATURE OF ONLINE DEFAMATION

The general principles relating to defamation under South African law, also apply to online defamation (Nel, 2007:195). For the purpose of this study, online defamation is defined as comments posted on a third-party website that contains all the elements of general defamation. Defamation occurs with the unlawful publication of a comment that injures the reputation of entities by lowering the perception of the entity in the eyes of a right-minded member of society (Brand, 2009:234). Each element will be discussed with reference to online defamation.

Elements of online defamation: Fault and unlawfulness

In order for the publication to be unlawful, the consumer must post the comments with the clear intention that it will lower the public opinion of the entity along with the knowledge that the publication is unlawful and may cause loss to the entity (*Suid-Afrikaanse Uitsaaikorporasie v O'Malley* at 636). Most customers will not comply with this requirement, as they are merely venting without a clear intention that their comments will cause loss to the entity.

When determining the element of fault (which can be in the form of intent or negligence), the possibility exist that the guidelines currently applicable to the general media may be adapted to online defamation. The reasoning behind this statement lies *inter alia* in the fact that negligence as a form of fault has been extended to individuals in previous case law (see *Marais v Groenewald* at 590), the increasing importance the internet plays as a communicator of public interest, and the developments in other jurisdictions. Each reason will be discussed briefly along with the applicability of negligence as a form of fault upon defamation by the media.

In cases of defamation by the media, the plaintiff need only prove negligence and not a clear intention to harm, on the part of the person making the defamatory statement (*Mthembi-Mahanyele v Mail & Guardian Ltd* at 526). In order to prove negligence, you must show that the person could foresee the defamatory statements causing harm to an entity, and that there was reasonably something he could have done to prevent the damage (*Kruger v Coetzee* at 430).

The possibility exists that this can also be extended to defamation cases against individuals in general (*Marais v Groenewald* at 590). This will entail that the publication will be unlawful, even if the consumer did not intend for the comment to lower the public opinion of the entity, but it did lower the opinion, causing harm to the entity. In the United States, the individual seeking to enforce a defamation action need only prove that the reasonable person would not have acted in a similar manner, therefore negligently. The clear intention requirement is reserved for defamatory statements made against public figures.

The mass media is a communicator of matters relating to public interest, but it also provides a platform for the exchange of ideas (*Khumalo v Holomisa* at 782). In the age of technology, this task also falls on third-party websites housing online consumer complaints. Even more so taking into consideration that almost 327,000 people visit a site like Hellopeter.com on a monthly basis.

In conclusion it must be added that online comments uttered during the course of a quarrel or a fight, may not be defamation if the publication of the comment was not premeditated and was provoked by sudden anger (*Peck v Katz* at 570-571). The extreme dissatisfaction can invoke rage, resulting in negative behaviour on the part of the consumer.

Elements of online defamation: Publication

The publication of the comment takes place if a defamatory statement is made known to at least one more entity apart from the entity being defamed (Brand, 2009:236). Publication is presumed with the posting of comments on a third-party website as it is expected and therefore probable that the comments will be read (Nel, 2007:195). However, if other customers reading the comment do not perceive it as defamatory, no publication is present. (*Mthembi-Mahanyele v Mail & Guardian Ltd* at 512). The consumer reading the comment must be a reasonable person of ordinary intelligence who thinks the comments to be defamatory, attaching the ordinary meaning to the comments (*Mthembi-Mahanyele v Mail & Guardian Ltd* at 520-522).

Elements of online defamation: Lowering the perception

The unlawful publication of the comment must lower the perception of the entity as held by a right-thinking individual with average education and of normal intelligence reading the comment (*Mthembi-Mahanyele v Mail & Guardian Ltd* at 536). Therefore customers may post coarse comments or comments expressing abuse, but it will not necessarily amount to defamation, as the comments can either be meaningless abuse or unable to lower the perception of the right-minded member of society reading the comment (Brand, 2009:237). Therefore, the use of vulgar words in the comments does not necessarily amount to defamation if the person reading the comment, does not think less of the manufacturer after reading the comment.

ANALYSIS OF EXAMPLES OF POSSIBLE ONLINE DEFAMATION

For the purposes of the study, the population is all complaints that were logged for a specific motor vehicle manufacturer on the website over the specific period under investigation i.e. from February to July 2009. Use was thus made of a convenience sample of complaints. The period that was selected was one week per month, specifically the 22nd – 28th of every month from February to July 2009. The reason for these dates being selected was linked to convenience, as well as covering a broad period of the year. A summary of the online comments can be found in Table 1.

Table 1 A summary of online comments for a motor manufacturer

	Number of compliments*	Number of complaints*	Number of online comments	Percentage of positive comments	Market share**
Motor manufacturer x	25	190	215	11	***

*note: these are classified by the writer of the online comment

** market share is an approximate figure using January 2010's sales figures

*** no information available

Once these online comments for the period were downloaded, they were subjected to an initial analysis. The findings are reflected in Table 2.

Table 2 Analysis of online comments for motor manufacturer x

Analysis of online comments	Frequency
Online comments during the specific period	29
Complaints	29
Complaints exhibiting possible online defamation (after an initial screening)	10
Complaints requiring detailed screening	5

Once the initial screening had been done, the online complaints were analysed to determine whether detailed screening was required. Five complaints required detailed screening to determine if defamation was present. The broad categories suggested by Brand in *The Law of South Africa* were used to as a point of reference to classify these comments (Brand, 2009:238). These categories are as follows:

- **Comments relating to the moral character of an entity:** This can include statements that suggest a person is involved in the commission of a crime.
- **Comments relating to the office, profession or occupation held by a person:** This will include any comment relating to professional duties performed by a person.
- **Comments relating to a person's political character:** This will include comments relating to the political activities of an individual.
- **Comments that may cause financial embarrassment:** This may include comments indicating that the individual is not able to pay his debts.
- **Comments imputing personal characteristics which lower the person to whom they refer in the estimation of right-thinking members of society in general:** This may include a comment indicating that a person suffers from a mental disorder or acts as a nuisance to the public.

The findings of the detailed analysis are found in Table 3.

Table 3 An analysis of online complaints

The online complaint (as it appears online)	Compliance with the elements of online defamation
<p>Complaint 1</p> <p>“Their communication is non-existent, and the only info you’ll get is if you call them. Threatening helps - they understand that. I regret doing business with these charlatans. They have my money, and the caring ends there.”</p>	<p>This comment relates to the moral character of an entity. This is only an extract from the comment. The comments start by explaining how the consumer paid R6 000 for an additional warranty, just to be informed that the company dealing with the warranty, never received such a payment from the dealership. It implies that the dealership may have been party to a commission of a crime.</p> <p>It can be assumed that there was publication as the comment was posted on a third-party website. Furthermore, any right-thinking consumer reading the comment would think less of the motor manufacturer x. However, it will be difficult to prove that it was the consumer’s clear intention to lower such perceptions and cause great financial loss to manufacturer x. The situation may be different if we applied the strict-liability principle that is currently applicable to members of the media.</p>
<p>Complaint 2</p> <p>“Absolutely Pathetic and a true refection of the institutionalized arrogance!!!!I remain manufactures x’s worst marketing agent. The subject of the complaint is unimportant-the total lack of response tells it all!”</p>	<p>This is only an extract from the comment, but in the original comment it specifically refers to the poor service received from X, employed by manufacturer x.</p> <p>This comment relates to the office, profession or occupation held by a person, specifically X, mentioned in the comment.</p> <p>Again, comment 2 complies with all the elements, excluding the clear intention to lower such perceptions and cause great financial loss to manufacturer x.</p>
<p>Complaint 3</p> <p>“When I enquired on why they are not even the least bit apologetic, Y said ‘You want to say I am sorry.</p>	<p>This comment relates to the moral character of an entity. The commission of a crime is implied as Y indicated that he physically wanted</p>

<p>I am sorry!’ That was the last straw. I walked out calling him an *** He called out to one of his ‘boys’ to ‘jam’ me at the entrance so that he could physically assault me...”</p>	<p>to assault the consumer.</p> <p>Again, comment 3 complies with all the elements, excluding the clear intention to lower such perceptions and cause great financial loss to manufacturer x.</p>
<p>Complaint 4</p> <p>“I have shown an interest to purchase a x motor vehicle during the month of March 2009. I have liaised with Mr X to indicate my interest, only to find out that the vehicle that was available has been sold. As per an agreement, my vehicle was traded in and should've been settled as promised. However, it was only an empty promise, only to find that the vehicle traded in were driving by Mr Y, accumulating fines of an amount of R1750, whilst driving in Soweto. During the period I have waited patiently, now, I am struggling to ensure the fines will be paid, as I am not liable and there is no urgency regarding this matter, even to settle vehicle as promised. During the period, I have paid 2 installments on a vehicle that were traded in. I have liaised with Mr X and now the dealer principle, manufacturer x, but, no assistance or urgency regarding this matter. I have emailed the regarding the matter, and it just seem that they don't care. I am getting fed up with the empty promises and now looking for things to be done, this the settlement of the vehicle traded in and paying of the fines. I want answers and I want proof of action taken!”</p>	<p>This comment relates to the moral character of an entity. The commission of a crime is implied as manufacturer x has sold a vehicle illegally to Y.</p> <p>Again, comment 4 complies with all the elements, excluding the clear intention to lower such perceptions and cause great financial loss to manufacturer x.</p>
<p>Complaint 5</p> <p>“I have been struggling from the 11th of June 2009 to obtain documentation from manufacturer x. I have traded my vehicle, whereby the provided the vehicle to a proxy to accumulate traffic fines for an amount of R 2000.00, whilst the vehicle was still registered in my name. Therefore, I have requested for a copy of the culprits' Mr Y’s driver license and proof that the vehicle have been registered into manufacturer x name. I am still waiting for the so promised information, as I would like to present the information to JMPD. Not to sure if I should follow the same route as what manufacturer x or Mr Z gave me, this, inform the police that the vehicle was stolen? So, I would like to know what action will be taken by manufacturer x to ensure I will get the information or if they will present the information as requested???”</p>	<p>This comment relates to the moral character of an entity. The commission of a crime is again implied as manufacturer x has sold a vehicle illegally to Y.</p> <p>Again, comment 3 complies with all the elements, excluding the clear intention to lower such perceptions and cause great financial loss to manufacturer x.</p>

DISCUSSION

An analysis of the 29 complaints during the period under investigation indicated that a further 5 needed closer investigation regarding possible defamation. From the analysis, it can be seen that while none of the complaints complied with the test for defamation, they all contained elements thereof. It is clear that the strict liability currently attributed to defamation by the members of the press must be applied to the online environment to regulate it properly. Until this is done, customers may not be held liable for online defamation, as it will not be possible to prove that they intended to cause financial loss to the entity through the posting of the online complaint. It was evident from the examination of the five comments that all comments complied with most of

the elements for online defamation, except for the consumer having the clear intention to lower the public opinion of the entity along with the knowledge that the publication is unlawful and may cause loss to the entity.

The *managerial implication of this research* highlights the need for the organization to develop an effective service recovery plan. This will encourage a dissatisfied customer to complain to the organization directly, rather than to a third -party website. Customers need to be educated on the nature of defamation. They could also be given hints (or pointers) on how to avoid making any defamatory statements.

For *future research*, a more detailed analysis of customer complaints is needed, while also expanding the analysis into other countries. Further, it must be determined if the strict liability attributed to defamation by members of the press can be adapted to be applied to online defamation.

CONCLUSION

It is evident that the general principles relating to defamation under South African law can be used to evaluate online defamation. An analysis of a sample of complaints made by customers towards a specific motor vehicle manufacturer indicated that while they were strongly expressing their dissatisfaction, they could generally not be viewed as defamatory, though some of the comments contained some of the elements of online defamation. The development of law in this regard in South Africa is needed if it is to be aligned with the demands and uses of technology. The current South African situation is summarised by Professor Deckle McLean when he says “*Internet growth has been so explosive that law has been far from able to keep up*” (McLean 2002:21).

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COMPARATIVE ANALYSIS AND POSSIBILITIES OF COMBINING CASH MANAGEMENT STRATEGIES

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ABSTRACT

Cash management implies balancing profitability and liquidity as well as costs of its excess or deficit. Therefore, an optimal amount and acceptable ratio of cash and cash equivalents are necessary and they can be estimated using models like Baumol's and Miller-Orr's. The basic strategies of efficient inventory management, prolonged payables payment and accelerated receivables collection are also useful. In an attempt to reduce their need for negotiated financing and its attendant financing costs, most firms tend to implement all three basic cash management strategies. However, they can be enhanced and other aspects of cash management should be taken into consideration, such as cash flow forecasting, short-term investing and funding, banking relationships, and international cash management. The best way to achieve maximizing profit while preserving liquidity is to make an optimal combination of cash management strategies, suited to the company's needs and resources.

CASH VERSUS MARKETABLE SECURITIES

Cash (as ready currency, either in hand or in a demand deposit account) and marketable securities (as short-term, interest-earning money market instruments that can be easily converted to cash) are the most liquid of the firm's assets, creating a pool of funds to be used to pay bills as they come due and to meet unexpected outlays. Motives for holding cash and near-cash balances could be: transactions motive (ensuring that the firm has enough funds to transact its routine, day-to-day business affairs), safety motive (protecting the firm against being unable to meet unexpected demands for cash), or speculative motive (allowing the firm to take advantage of unexpectedly arising opportunities). Temporary 'idle' cash is best utilized in the form of marketable securities.

Their portfolio (serving as a "safety stock" of cash) or a credit line, can be used to satisfy i.e. protect against the unanticipated demands for funds. The characteristics of both government (Treasury Bills, Treasury Notes, and Federal Agency Issues) and non-government issue marketable securities (Negotiable Certificates of Deposit – CDs, Commercial Paper, Banker's Acceptances, Eurodollar Deposits, Money Market Mutual Funds, and Repurchase Agreements) are: safety of principal (which means the security is easily sold for close to its initial value) and (so-called) ready market (defined by its breadth, or number of market participants, and depth, or the market's ability to absorb the purchase or sale of a large currency amount of a particular security). The optimal level of marketable securities investment is the difference between the management's desired level of firm's liquidity and the level of transactional cash balances determined from one of two well-known models. [1]

According to the Baumol model, estimated (transactional) cash balance is the square root of estimated demand for cash multiplied by double conversion (transaction) cost (of converting marketable securities to cash) per conversion (transaction) and divided by opportunity cost (as the marketable securities interest earnings given up due to holding funds in non-interest-earning cash account) in the decimal form of interest rate. Total estimated cash demand divided by thus estimated cash balance gives the number of conversions necessary during the year to replenish the cash account. The total cost of (running) such a policy is the sum of the conversion costs (as conversion cost per conversion, multiplied by the number of conversions necessary) and the opportunity costs (as previously defined opportunity cost, multiplied by the average cash balance – as one half of the estimated cash balance). Cash transfers larger or smaller than the estimated cash balance will result in a higher total cost.

The Miller-Orr model estimates cost-efficient cash balances for uncertain cash flows by determining their upper limit and return point, being the level at which the cash balance is set, either when cash is converted

into marketable securities, or vice versa. All parameters for the model are based upon the return point, calculated as the cube root of the variance of daily net cash flows multiplied by triple conversion cost per transaction and divided by four times the daily (meaning divided by 365, previously defined) opportunity cost in a decimal form. These cash balances can fluctuate between zero and the upper limit, as three times the return point. When the cash balance hits the upper limit, excess cash (in amount of the upper limit) is converted to marketable securities. When the cash balance falls to zero, marketable securities (in amount of the return point) are transferred to cash.

THREE CLASSIC CASH MANAGEMENT STRATEGIES

Cash balances and safety stocks of cash are significantly influenced by the company's production and sales techniques as well as by its procedures for collecting sales receipts and paying for purchases. The operating cycle of an organization represents the time interval from the point when the firm begins to build inventory to the point in time when cash is collected from the sale of the resulting finished product, or the sum of average age of inventory (obtained dividing 365 days by the inventory turnover, as the quotient of the cost of goods sold and the inventory) and average collection period (as the quotient of accounts receivable, and sales divided by 365 days).

Subtracting average payment period from the operating cycle, a financial manager gets his company's cash conversion cycle, as the time interval in which the firm's cash is tied up between payment for production inputs and receipt of cash from sale of the resulting finished product. Negative cash conversion cycle is desirable since it allows the firm to use spontaneous financing to support other aspects of the business. Conversely, a (far more common) positive cash conversion cycle means that the firm must use non-spontaneous (i.e. negotiated) financing (such as unsecured short-term loans or secured sources of financing) to support cash conversion cycle.

The organization can minimize its needs for negotiated financing by taking advantage of imperfections in the collection and payment systems. A term float is used to describe funds that have been dispatched by the payer, but are not yet in such form that the payee can spend them, or when a payee has received the funds in the form in which he can spend them, but they have not been withdrawn from the payer's account. Total float time may be even nine days. It consists of three components: mail float (up to three days – from the moment a check is issued and mailed by the payer company until the moment it is received by the payee company), processing float (up to two days – while bookkeeping entries are made and check is deposited), and clearing float (of up to four days – until the check is cleared). For the payer, it is disbursement float, and for the payee, it is collection float.

There are the following three (already for long, and very widely used) basic cash management strategies.

- ◆ Accelerating the collection of accounts receivable – It means collecting the accounts receivable as quickly as possible by adjusting the credit and payment terms, to make them more attractive for customers to pay earlier and/or to be more expensive to miss paying on time. This shortens the average collection period and for each day it is decreased, the need for negotiated financing is lowered. Classic techniques designed to minimize the collection float by speeding up collections include: banking concentration, lockbox systems, direct sending, preauthorized checks, depository transfer checks, wire transfers, and automated clearinghouse (ACH) debits.
- ◆ Stretching payment of accounts payable – It means paying the accounts payable i.e. bills as late as possible, but without damaging the company credit rating. That lengthens the average payment period, and for each day it is increased, the need for negotiated financing is lowered. Old techniques designed to maximize the disbursement float by slowing down disbursements include: controlled disbursing, playing the float (by staggered funding or payable-through drafts), then overdraft systems, zero-balance accounts, and automated clearinghouse credits.
- ◆ Efficient inventory management – It means turning over (all types of) inventory as quickly as possible. This can be done by shortening the production/trade cycle and/or increasing raw material and/or (finished) goods turnover. The need for negotiated financing is lowered for each day the average age of inventory is reduced.

ENHANCING BASIC CASH MANAGEMENT STRATEGIES

The Fourth Annual Cash Management Survey, conducted by gtnews between May and June 2009 in association with SEB [2], highlighted a number of significant trends and showed an increased focus on sales and

accounts receivable (32.7%) as well as the continued prioritization of cash flow forecasting (31.3%) and liquidity management (including cash concentration, short-term investment and funding issues, 21.8%). Over the last four years, when asked which process has the greatest potential for improving cash management, survey respondents have provided different responses – reflecting the changing dynamics of the cash management environment. In 2006 and 2007, cash flow forecasting was highlighted as such cash management process; but in 2008, liquidity management topped the survey; in 2009, the priority has shifted one more time, with one third of the respondents agreeing that accounts receivable is now the process with the greatest potential for improving cash management.

Evaluating Accounts Receivable

The credit crunch had evidently strong impact on shifting the focus of treasurers from overall liquidity management to driving efficiency from internal cash management processes, such as accounts receivable, as the logical starting point to improve working capital management at a time when liquidity is restricted and firms seek to maximize their cash flows. Nevertheless, this is not without its challenges, and they have to tackle this issue proactively but sensitively, taking into account the influence of the economic climate on their customers, as well.

Considering enhancement of company's performances should be done without causing difficulties to its customers. The current concern is not when the invoices will be paid but whether they will be paid at all by some of the clients. As with any balancing act, it is easy to get stuck between customers prolonging payment terms and demanding lower margins and suppliers requesting early payment in order to survive. It is important to get senior and top management and individual business leaders on board in improving this process, as they should control the inventory and improve terms with both suppliers and customers. A symmetric process might be applied e.g. in small and medium sized firms that could become partnerships – internally capitalized to improve cash flow.

Businesses should try to avoid a vicious cycle of continuously waiting for payments to make their own payments. Instead of it, they need to evaluate (and review for each client) current payment terms and deadlines, and find ways to motivate timely payments. There is a variety of options, but a treasurer has to select the policy that would (benefit) his company the most, from the aspect of its needs as well as clients and payments structure.

Company may offer a discount to customers that regularly pay on time or adhere to a tightened payment timeframe (e.g. from 30 to 20 days) or pay electronically (which saves the client time and money, while the firm receives its payment quicker and can use these funds earlier). It is useful to find out which payment channels are used most frequently, which are (possibly) not used at all and – treating and handling your clients as you expect to be treated – to survey and discuss payment options with them, to understand better their payment preferences.

Evaluation of entire invoicing process would consider currently granted credit extensions, how and how frequently the firm invoices, and whether the invoices are mailed, sent electronically or included with a shipment.

Evaluating Accounts Payable

Efficient payables function requires a full understanding of all one's vendor payment vehicles that one can use to make payments, to ensure the supplier receives the payments on a timely basis. If he demands only mail-in payments, the question is whether they are tied up in a lockbox, in order to know if we need float time or not. It is also important to know own position in the vendor's supply chain. To receive strong payment or trade terms it is not always necessary to be a large company, but to have a strong record of timely payments. If the supplier invoices too frequently, or mails the invoices, when an electronic distribution method would be more effective, it should be discussed. By detailing the invoicing process with supplier, you provide them with the confidence that your payment will be made in timely fashion and based on the agreed-upon terms and channels.

Financial supply chain is a potential asset for creating liquidity. For instance, invoices, trade receivables or even purchase orders can be used as collateral for financing or cash flow enhancement. Since companies of all sizes have difficulties to source credit through traditional mechanisms, alternative financing arrangements can be valuable. A way in which treasurers can contribute to the core activities of the business is supply chain financing, which is a way for companies with a stronger credit rating to support their suppliers, with advantages for both. Buyers benefit from longer payment terms and therefore greater cash flexibility, while suppliers gain earlier,

predictable payment and effectively a credit line from their buyer's bank. However, in spite of increasing interest in supplier financing and sales support financing, which could take the form of external payment terms or vendor financing arrangements, companies have limited resources for that. Setting up a financing program takes time and resources and the treasurers have to prioritize their activities. Companies also often overestimate their ability to extend payment terms with suppliers, so they do not consider that alternative financing has value for them.

Evaluating Inventory Management

Eli Lilly & Co. introduced Strategic Capital Management approach that brought large savings from improvements of working capital based on the balance sheet awareness initiative. Since the focus was just on the income statement, their credit management facilities were weak and nobody thought about how capital-intensive their strategic investments might be. After the links between the income statement and the balance sheet had been drawn and Economic Value Added used as primary corporate scorecard, regional management started to monitor and report EVA-calculated working capital numbers (such as days of sales outstanding, days of stock, days payable) and cash flow. Targets for EVA were established at the corporate level, while working capital targets were set up for each region and affiliate. The regions created three-year business plans that for the first time outlined an income statement and balance sheet integrated with cash flow, working capital, risk assessments and financing requirements. The treasury also developed and dispersed a Risk-adjusted Rate of Return (RAROR) model to provide a consistent country investment risk analysis methodology throughout the organization. [3]

Due to a lack of control over the financial supply chain, treasurers are, on the one hand, responsible for ensuring sufficient levels of liquidity for the business, which requires a focus on working capital, while on the other, they are often not in a position to direct the activities that contribute to it. They need to take greater control of trade finance, specifically trade-related flows, to manage working capital better. Delays and errors that would not be tolerated for other types of cash transaction flows are common in trade finance processes. For example, according to SEB's analysis of the companies' letter of credit portfolio, the average lead-time from shipment to payment is 41 days, against best practice of 10 days, creating a working capital lag of 31 day. (Zingmark, 2009)

Being asked what role treasury has in working capital management, the majority (60%) of the Survey respondents confirmed that they still merely monitor it and described the quality of their purchase-to-pay (P2P), order-to-cash (O2C) and inventory cycle processes as either average or good, and only 8% considered them to be best practice. It is indicated that substantial improvements would be possible if treasury took a leading role in the management of working capital processes, but it depends on the organizational structure of the entire company.

OTHER ASPECTS OF CASH MANAGEMENT

Cash Flow Forecasting

Two thirds of corporate respondents still use spreadsheets for cash flow forecasting, what represents the continuation of a gradual decrease from the past three years. While 13% declared they currently use specialist software provided by an external party, 7% said they use a module in an ERP system. When asked what barriers they faced in establishing accurate cash flow forecasting systems and processes, they identified the following major obstacles: inaccurate sales targets or projections, lack of internal systems integration and inter-department communication, lack of effort/priority within the business unit when it came to forecasting, limited availability of resources (staff and investments), inefficient process at subsidiary level, and (in minor percentages): lack of inter-bank connectivity, inefficient collections policy, decentralized billing system, and manual invoicing system.

It reflects the common scenario where treasury is not positioned at the core of the business. Much higher interaction and integration between treasury and business units are necessary in order to overcome these barriers.

Communication between treasury and business units/subsidiaries becomes increasingly difficult the more diverse and complex corporate organization is. In larger organizations, for instance, treasury is not often involved in the day-to-day operations of the business units and is therefore not always aware of their priorities and pressures. At the same time, the business units have a lack of understanding about the treasury function and the importance of supplying accurate information on time and on demand for purpose of cash flow forecasting.

Short-Term Investment and Funding

Majority (70%) of the (cited) Survey respondents (being a small increase from previous years) continue to use bank deposits for the allocation of the surplus cash and explain it with limited credit risk, company policy and the ease of decision. However, most of them plan to opt for money market funds in the future, so they must fully understand what their funds are invested in and consider all risk factors carefully. Money market funds have a good return at low risk but firms have to keep track of their investment portfolio and take a cautious approach.

When asked how they handled short-term deficits, in line with the results since 2006, the majority of the respondents said that their organizations mostly use bank overdrafts (46%) and inter-company loans (44%), that are expected to be used less in the future, although it is the most efficient way to handle cash deficit nowadays, but it is probably easier for large companies, which have the right structure to handle cash flows in this way.

Strong Banking Relationship with Strong Bank(s)

Efficient and effective cash management begins for many enterprises by establishing strong relationship with a bank. Looking at their commercial customers as profit centers, banks have developed many products and services to assist clients in cash management and charge for them both direct fees and compensating balances. A financial manager has to shop around and purchase only those that are priced to result in a net gain for the firm.

Turbulences in the banking sector due to the global financial crisis forced managers to take much closer look at their current banking relationships, looking for a strong financial institution. It is critical for a company, regardless of its size and industry, to select a bank or (applying the diversification principle) several banks that can meet its business needs. Therefore, a number of parameters should be analyzed, such as: banks credit ratings reports, capital ratios, market capitalization, bank's investments in new technology, product and service offerings.

International Cash Management

It is very important to know and adapt to the differences in banking systems. Most banks in the world have fewer geographic and service-related restrictions than do US banks and tend to use direct payment systems (such as giro systems) that minimize the need and ability to use checks. They are also allowed to pay interest on corporate demand deposits, routinely provide over draft protection, generally charge more and higher fees for their services, and often engage in value drafting, i.e. making deposited funds available for use several days or weeks after they are deposited.

Multinational corporations have specific cash management practices and the flexibility to invest excess cash both in foreign and domestic marketable securities. They need to maintain local currency deposits in each country in which they operate and retain centralized control over all cash flows and balances, commonly using a large international bank to collect and disburse cash (by wire transfers), and monitor foreign exchange rates. They can minimize cash requirements and sometimes even totally eliminate international payments using intra-company netting techniques between subsidiaries.

COMBINING CASH MANAGEMENT STRATEGIES

In an attempt to reduce their need for negotiated financing and its attendant financing costs, most firms tend to implement all three basic cash management strategies. Nevertheless, they have to take great care to avoid experiencing excessive inventory stock-outs, losing sales due to too tough collection policy, or damaging credit relationships due to overstretching accounts payable. For example, if a firm spends US \$ 12 million annually on its operating cycle investments and pays 10 percent interest for its negotiated financing, if it can reduce its cash conversion cycle by 30 days, it will save $[(\$12,000,000 / 360) \times 30] \times 0.10 = \$ 100,000$ in annual financial costs.

Owing to synergy between the receivables and payables processes, analyzing payables problems could provide guidance to the improvement of the receivables procedure. There is evidence that evaluating these two

processes might really benefit the firm. One company examined its receivables process and, in turn, decided to reduce its customer payment terms by 20 days. It looked then at its payments process, and increased its payment terms to own suppliers by eight days. It resulted in US \$ 3.5 million in capital back in the bank. (Graves, 2010)

Corporate treasurers could use factoring, letters of credit and other trade finance documentation and instruments to extend either their accounts payable or receivable as tools to maximize their working capital and achieve greater working capital efficiency. Many different strategies might be utilized to conserve cash and there is no one road to cash management success. An efficient cash management strategy has to be tailored to the firm's size, individual practice niche, and client base, as well as to ensure that sufficient cash is available to meet the firm's needs and objectives as they arise. There is an old saying: "Profits are an opinion, but cash is a fact."

The best way to achieve the company goals, such as maximizing profit while preserving liquidity, is to make an optimal combination of cash management strategies, suited to the company's needs and resources.

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BUYER BEHAVIOUR OF ORGANIC FOOD IN CHINA: CONSUMERS HAVE THEIR SAY

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ABSTRACT

This paper aims to investigate the dimensions important to consumers in the People's Republic of China during their pre-purchase evaluation of organic foods. Data was collected through randomly distributed self-administrated questionnaires with consumers at major supermarkets in Beijing and Shanghai, China. The results show that 'enforcement relating to the quality of organic food' and 'the overall quality of organic food' have been rated as the most important dimensions for Chinese consumers. The results also suggest that 'Certification', 'Branding', 'Sensory appeal', 'Social status', 'Value for money' were other important factors in their decision to purchase organic food.

INTRODUCTION

In the last decade or so, there has been a significant increase in interest of organic foods globally. The term 'organic food' has many different connotations and interpretations, and is sometimes used interchangeably with the term 'green food'. Various contrasting 'organic' definitions are often coupled and confused with terms such as 'biological', 'ecological', 'natural', 'alternative', 'unsprayed', 'free of pesticides', 'without artificial', 'without chemicals', 'environmentally produced', 'green', and 'sustainable' (Essoussi & Zahaf, 2008). The dilemma with the definitions has caused confusion in the minds of consumers worldwide. For the purposes of this paper, the term 'organic' will be used throughout. There are stereotypical images of organic consumers as 'greenies', 'health nuts' or 'yuppies', which are more interested in fashion than anything else (Lockie et al, 2002). Generally, consumption of organic food reflects a 'greening' lifestyle. For regular organic food buyers, consumption of organic food is part of a lifestyle, with related interests in nature, society and the environment (Schifferstein & Oude Ophuis, 1998).

Consumers' attitudes and behaviour toward organic food have provided evidence that consumers consider health concerns and environmental issues as the most important factors that influence their purchase decision-making process. According to some studies organic foods are perceived as being more nutritious and healthier, safer, environmentally friendly, contain less chemical residues and taste better than normal food (Krystallis & Chrysosohoidis, 2005). Hence, consumers are willing to pay a greater premium price for pesticide elimination and organic food. Even in newly emerging markets, consumers are still willing to pay a higher price for higher quality, taste, and 'safety' certified food (Grannis et al, 2001). Other studies also revealed that some of the reasons for the non-purchase of organic food include consumers' perceptions of it being expensive, limited in availability and choices and even unsatisfactory in appearance (Radman, 2005). Misleading labeling and certification, low profile distribution channels, and lack of perceived value have also been discovered as barriers influencing the purchasing of these products (Gallagher & McEachern, 2003). Consumers often have significant difficulty in evaluating whether they are purchasing high quality food. Food safety concern appears as the most important factor which influences purchasing decision-making.

Labeling seems one of the important issues influencing organic food purchasing. An organic food logo is the consumer's guarantee that the product has been produced organically. There is however confusion created by the lack of existing well-known organic brands, though sometimes organic labeling maximizes the effectiveness of organic products (Krystallis et al, 2006). In 2004 there were six organic certification bodies in China. In 2005 the organic food certification bodies in China dramatically increased to 26, which also included those from the US, EU, Australia and Japan (CMP Information Ltd, 2006). It is arguable whether consumers can trust organic

labels. A further study has shown a relatively low understanding of the legal use of the term 'organic' on food products including inspection and certification systems (Padel & Foster, 2005).

China has experienced dramatic economic growth in the last twenty years, is developing an affluent urban middle class for domestic organic food market. Over the recent period the Chinese organic sector has grown faster than the worldwide average. Although a very small and almost insignificant percentage of Chinese consume organic food products, China has gone well beyond being an adopter of the world organic concepts, and is now an active organic innovator (Paull, 2008). However, 'organic' food is still a new concept, mostly available at major supermarkets in large cities and still little understood by Chinese consumers. Another Chinese survey showed that only 37.2 percent of respondents were aware of 'organic food' (Li, Cheng, & Ren, 2005).

A study by Chan (2001) claimed that with increasing affluence derived from rapid economic growth, certain sections of Chinese society and Chinese government have begun to realise the hazardous impact of environmental deterioration on national well-being. The 2008 Chinese food contamination of the milk baby formula involving melamine-tainted dairy products have increased Chinese consumer's concerns about domestically produced food products. This led Chinese consumers to start losing confidence and trust in the domestic food regulatory system. Doubts have been raised whether domestically produced organic products are really organic or not and whether they meet all organic declared standards (United States Department of Agriculture, 2008).

RESEARCH OBJECTIVES

As mentioned above, consumer decision making in relation to the purchase of organic food is influenced and shaped by many factors and determinants. Current literature studying consumers' awareness of organic food have been well developed in North America and Western Europe (Bonti-Ankomah & Yiridoe, 2006). Only a handful of studies have been conducted in Asian countries such as Japan, Taiwan, India and Thailand. These studies have investigated the perceptions of consumer attitudes toward the purchase of organic foods. These studies also confirm that the most important reasons and motivation for consumers buying organic food are health, food safety, concern for the environment and animal welfare. As best as can be ascertained, very few studies of this nature have been undertaken in China, a fast growing economy where organic foods are increasingly being marketed. Little is known or understood about Chinese consumers' attitudes towards organic products or their purchasing behaviour.

This research aims to investigate the dimensions that are important to consumers in China during their pre-purchase evaluation of organic foods, more specifically, the research objectives are to:

1. Evaluate attributes important to consumers in their decision making for the purchase of organic food;
2. Determine the dimensions which are important to consumers of organic food;
3. Provide managerial implications for the organic food industry and government agencies in China.

METHODOLOGY

Twenty-three attributes were elicited to ascertain the important aspects in relation to the pre-purchase evaluation of organic food in China (See *Appendix*). The attributes have been obtained from previous literature and two focus group discussions in China. All of the questions use a five point Likert scale, where 1 indicates 'not important at all', 3 indicates 'neutral', and 5 indicates 'extremely important'. Previous studies (Wei, 1997) affirmed that five point Likert scales are comprehensible by Chinese consumers. The survey instrument originally in English was translated into Chinese by the bilingual researcher. For purposes of verification, the questionnaires were translated back into English to verify the reliability of the translation. The translated versions were also cross-checked by three other bilingual researchers to ensure correctness.

Organic foods are relatively new products, primarily available in large supermarkets in major Chinese cities. The data was collected at major supermarkets in Beijing and Shanghai over a period of 14 days. As these two Chinese cities are economically and politically prominent and the main engines of China's phenomenal economic development, consumers are therefore more affluent, hence they are more likely to be aware of organic foods. All participating supermarkets had organic food sections. Shoppers were approached to participate in a self-administered questionnaire at the main entrance of the supermarkets by trained personnel. Consumers were approached randomly and asked 'Have you ever heard of the term organic food?'. If the respondent answered

‘yes’, then they were asked ‘whether they would like to participate in the survey?’. If the consumer answered ‘No’, the next customer entering the store would be approached and so on. Then, every tenth individual consumer who walked in the supermarket was asked the same questions. A small gift of organic food (nuts or vegetables) was offered in appreciation of their time to answer the questions. The personnel were instructed to seek out demographic variation where possible and the questionnaire was presented to consumers entering these supermarkets throughout the day during the trading hours of the stores. Finally, a total of 204 valid questionnaires was collected.

RESULTS

The results which emerged in terms of gender breakdown had a response of 48 percent from females and 52 percent from males. The education level of the respondents indicated that 54.4 percent of the total participants had a postgraduate degree. Only two percent of the participants had high school or levels below. In China today most of the affluent people who purchase organic food are well educated, hence a large percentage of respondents had a postgraduate degree. Regarding occupation, 67.2 percent of respondents were white collar employees while the remaining respondents were either blue collar, or not working. These results appear to concur with previous studies in relation to organic food consumers being both of high education and higher income earners (Tsakiridou et al 2008). When asked ‘How much extra are you willing to pay for organic food as compared to ordinary food?’, 71.1 percent of respondents said they were willing to pay an extra 20% -50%. On the other hand 21.1 percent of respondents said they ‘don’t want to pay extra’. On the question asked ‘Where would you prefer to buy organic food from?’, 74.5 percent of respondents still prefer to buy organic food in a supermarket while only one percent prefer to purchase through on-line or catalogue sales. These findings confirm that ‘organic’ is still a new concept, and organic food products are mainly available in Chinese supermarkets.

Out of the twenty-three items of the customised scale, twenty-one were given mean ratings above ‘3’ (neutral rating) as shown in the *Appendix*. This suggests that on the whole, the ratings given by Chinese respondents to the various items of important attributes for the purchase of organic food were generally significant. Table I illustrates the top five important attributes to purchase organic food in China. The ‘enforcement relating to the quality of organic food’, and the ‘overall quality of organic food’ have been rated the most important, followed by ‘certification relating to the quality of organic food’, ‘food safety in relation to organic food’, and ‘information about the nutritional value of organic food’. This would confirm the low knowledge of organic food that Chinese consumers have and their concern about food safety issues and that they are somewhat suspicious of the quality of organic food products and their certification.

Table I: Top five important attributes

Items	Mean	Std. Deviation
Enforcement relating to the quality of organic food	4.45	.696
The overall quality of organic food	4.40	.740
Certification relating to the quality of organic food	4.30	.760
Food safety in relation to organic food	4.25	.752
Information about the nutritional value of organic food	4.24	.752

Table II shows the least five important attributes in relative to the purchase of organic food in China. These include ‘the idea of saving face when purchasing organic food’, and ‘social status’. These results would indicate that organic food consumption is not an activity which is practiced in public, as organic food consumption is a private consumption. Although China is described as being in the highly collectivist category with high power distance, status is important to indicators of power and achievement. However, face-saving is important only when purchasing a socially visible product, such as a watch, which can demonstrate the owner’s status. The pragmatic Chinese tends to value function over form for private-use products and quality is considered as more important than appearance (Schütte & Ciarlante, 1998).

Table II: Five least important attributes

Items	Mean	Std. Deviation
The promotion and advertising of organic food	3.28	.956
The appearance of organic food	3.22	.959
Organic food that is produced in China	3.21	.869
The social status of people purchasing organic food	2.17	.985
The idea of face saving (manzi) when purchasing organic food	2.07	.941

As shown above, the least important attributes in Chinese consumers' choice include 'produced in China', 'appearance' and 'promotion and advertising'. Sun and Collins (2006) pointed out that Chinese consumers purchase imported fruit not only to attain a high quality product, but also expect to gain some pleasure and symbolic benefit such as 'superior appearance', 'expensive' and 'high prestige'. Consumers in developing countries, buying foreign products which are generally considered social symbols and also very trendy, particularly those products whose origin are from prestigious countries (Batra et al 2000). Another study argued that consumers from developing countries, such as China, highlight the impact of ethnocentrism on their willingness to buy domestic products. However, when these consumers hold higher conspicuous consumption values, they tend to perceive domestic products as lower quality products (Wang & Chen, 2004).

An exploratory factor analysis was conducted to elicit dimensions related to the collected data. The Kaiser-Meyer-Olkin (KMO) value was .767, and the Bartlett's Test of Sphericity value was significant ($p=.000$). Hence, the factor analysis is acceptable. Table III indicates the total variance explained by the customised scales. 'Eigenvalues represent variance. Because the variance that each standardised variable contributes to a principal components extraction is 1, a component with an eigenvalue less than 1 is not as important, from a variance perspective, as an observed variable' (Tabachnick & Fidell, 2007 p644). The first five dimensions recorded eigenvalues above 1 (5.007, 2.685, 2.038, 1.371, 1.277) all of which explain a total of 58.943 percent of the variance. This was followed by Orthogonal rotation (Varimax with Kaiser Normalization) which was chosen due to the very weak relationship between the five factors in the correlation matrix.

Table III: Total variance explained by the customised scales

Factor	Eigenvalues	Percentage of variance explained	Cumulative percentage of variance explained
Factor 1: Certification	5.007	23.841	23.841
Factor 2: Branding	2.685	12.785	36.626
Factor 3: Sensory appeal	2.038	9.707	46.333
Factor 4: Social status	1.371	6.531	52.864
Factor 5: Value for money	1.277	6.080	58.943

Table IV indicates the details of the factor analysis related to the important attributes for the purchase of organic food. Items 12 and 23 were deleted due to low loadings. The remainder of the 21 items with loadings higher than 0.4, are presented (Nunnally & Bernstein, 1994). The items that have high loadings in the first dimension are 'enforcement', 'certification', 'food safety', 'government regulation' and 'correct labeling'. Hence this dimension was titled '*Certification*'. The reliability test produced a Cronbach's Alpha of 0.811, indicating a high internal consistency. The second dimension can be interpreted as '*Branding*' since the items included are 'brand name', 'country of origin', 'awareness' and 'produced in China', and the Cronbach's Alpha was 0.760. The third dimension was named as '*Sensory appeal*', and the items comprise 'taste', 'smell', 'appearance' and 'overall quality', and the Cronbach's alpha was 0.751. The fourth dimension can be explained as '*Social status*', which embraces 'face saving', 'social status', 'promotion and advertising' and 'package', and the Cronbach's Alpha was 0.686. The last dimension was labelled '*Value for money*', combining items 'value to price', 'price', 'availability' and 'environmental benefits' and the Cronbach's Alpha was 0.549. All the Cronbach's Alpha values of the five dimensions indicate an acceptable internal consistency reliability (Cronbach, 1951).

Table IV: Factor analysis of attributes related to the purchase of organic food

Factor	Loading	Variables
Factor 1: Certification	0.825	Enforcement relating to the quality of organic food
Cronbach's Alpha =.811	0.814	Certification relating to the quality of organic food
	0.731	Food safety in relation to organic food
	0.652	Government regulations and policies relating to the sale of organic food
	0.620	Correct labelling of organic food
Factor 2: Branding	0.820	The brand name of the organic food
Cronbach's Alpha=.760	0.718	The country of origin of the organic food
	0.691	The awareness of organic food products
	0.655	Organic food that is produced in China
Factor 3: Sensory appeal	0.831	The taste of organic food
Cronbach's Alpha =.751	0.826	The smell of organic food
	0.633	The appearance of organic food
	0.559	The overall quality of organic food
Factor 4: Social status	0.868	The idea of face saving (manzi) when purchasing organic food
Cronbach's Alpha =.686	0.796	The social status of people purchasing organic food
	0.527	The promotion and advertising of organic food
	0.503	Packaging of organic food
Factor 5: Value for money	0.630	The value of organic foods relative to its price
Cronbach's Alpha =.549	0.616	The price of organic food
	0.588	The availability of organic food in convenience stores and supermarkets
	0.582	The environmental benefits of organic food

The results suggest that the above factors and dimensions are important to consumers when deciding about the purchase of organic food in China. Most of the five dimensions are also consistent with previous literature.

DISCUSSION AND IMPLICATIONS

This is one of the very few studies in China regarding to consumer buyer behavior of organic food. It provides valuable insights into global consumer behavior in terms of organic foods and it also builds a new body of knowledge with regard to the future potential of organic food business in China. Beneficiaries of this study include various stakeholders in China and globally such as consumers, vendors both local and international and government agencies.

The research findings reveal that 'Enforcement relating to the quality of organic food' and 'overall quality' are the most important attributes in the consumer decision making process for the purchase of organic food in China. Like many western consumers, Chinese consumers are also motivated by food safety issues related to personal health and environmental concerns. However, Chinese consumers are more suspicious of the quality of food purchased and have high expectations in the improvement of overall organic food certification and inspection as

well as policy enforcement. They are also eager to understand more about organic food and what this industry is all about. Furthermore, there are five factors which are important to consumers of organic food in China and these include ‘Certification’, ‘Branding’, ‘Sensory appeal’, ‘Social status’, and ‘Value for money’. There are several implications that can be derived from our findings.

Firstly, there is a lot of confusion amongst Chinese consumers and the food scandals have damage consumers’ confidence. There is a lack of trust in overall organic food quality as well as doubt in the enforcement of quality by Chinese authorities. Government agencies and industry need to be aware of the necessity to regulate the organic food market. They also need to enhance the inspection and certification of organic food labelling as well as ensuring the labelling and logos of organic food are a sign of quality. Secondly, the awareness of organic food in China is still very low. There needs to be an increase in the availability of distribution channels and there is a need to publicise the overall quality process of organic food related to food safety issues. Thirdly, the expensive nature of organic food is obviously always a barrier to purchase. However there is a need to educate consumers to understand that the value of organic food is related to its price. Improving the awareness of organic food products is by far more critical. Finally, the educated, higher income families are more likely to purchase organic food and therefore income and education still seem to affect the consumption of organic food which is consistent with previous studies.

APPENDIX: PERCEPTION MEANS FOR ITEMS OF THE CUSTOMISED SCALE

Scale No	Item	Mean	Std. Deviation
1	The taste of organic food	3.76	.884
2	The smell of organic food	3.69	.853
3	The appearance of organic food	3.22	.959
4	The overall quality of organic food	4.40	.740
5	The price of organic food	3.92	.805
6	The availability of organic food in convenience stores and supermarkets	3.72	.811
7	The promotion and advertising of organic food	3.28	.956
8	The value of organic foods relative to its price	3.96	.859
9	The environmental benefits of organic food	4.01	.848
10	The idea of face saving (mianzi) when purchasing organic food	2.07	.941
11	The social status of people purchasing organic food	2.17	.985
12	The knowledge of organic food products	3.86	.726
13	The awareness of organic food products	3.50	.885
14	The country of origin of the organic food	3.32	.917
15	Organic food that is produced in China	3.21	.869
16	The brand name of the organic food	3.50	.912
17	Government regulations and policies relating to the sale of organic food	3.88	.924
18	Food safety in relation to organic food	4.25	.752
19	Certification relating to the quality of organic food	4.30	.760
20	Enforcement relating to the quality of organic food	4.45	.696
21	Packaging of organic food	3.29	.926
22	Correct labelling of organic food	4.08	.799
23	Information about the nutritional value of organic food	4.24	.752

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PERCEIVED ONLINE SECURITY AND TRUST FROM A STUDENT PERSPECTIVE: AN EXPLORATORY STUDY

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ABSTRACT

This exploratory study identifies factors that students consider when evaluating the trustworthiness and security of websites. Several themes emerged from the study including the importance of reputation and opinions of others. Considerable overlap existed between the two concepts of trust and security suggesting an opportunity to further investigate their relationships.

INTRODUCTION

A recent New York Times article (Lohr 2010) highlighted the increasing danger of loss of privacy and security risks from the use of social networks. Consumers themselves, or inadvertently through friends on social networks, dole out bits of private information which can be gathered for marketing analysis or more nefarious purposes with sophisticated data mining software. According to the Pew Research Center (2010), U.S. Millennials (ages 18 to 29) and especially those who have attended college, are more likely to be online, view and post online video, use wireless and participate in social networking. While students may consider themselves online experts, how knowledgeable are they about making themselves and their computers secure? This paper reports the first half of a two-part study on trust and security. To begin with, we wish to identify factors that students consider in evaluating whether or not to trust a website and whether it is secure. This paper reports the first part of the study and sets up the theoretical framework for the second study.

The paper begins with background information on the constructs of trust and security. We then describe the results of an exploratory study to identify the factors that students consider when evaluating the trustworthiness and security of websites. Several themes emerge from this exploratory research.

DEFINING TRUST

Trust has been defined in numerous ways in both the marketing and IT literature. Trust continues to be an elusive concept, defined and measured in numerous ways. As the study of business exchanges has shifted from physical goods to services and from bricks and mortar to online, the antecedents and definitions of trust continue to evolve. Trusting beliefs are often categorized by three attributes -- competence (ability of the trustee to do what the truster needs), benevolence (trustee caring and motivation to act in the trustee's interests), and integrity (trustee honesty and promise keeping) (McKnight, Choudhury and Kacmar 2002).

Summaries of the conceptualizations of trust across various disciplines can be found in Gefen, Karahanna and Straub (2003) and McKnight, Choudhury and Kacmar (2002). To provide some background on this topic, we briefly discuss trust in the context of marketing relationships.

Relationship Marketing and Trust

In the marketing literature, trust is identified as key to long-term relationships. Morgan and Hunt (1994) proposed a general theory of relationship marketing proposing relationship commitment and trust as the key mediating variables in successful relationships. Variables which were postulated to lead to relationship commitment and trust included relationship termination costs, shared values, communication, opportunistic behavior, and relationship benefits. In contrast to examining the nature of a current relationship between buyer and seller, other marketing researchers concentrated on developing a structure of the process by which a buyer-seller relationship developed. For example, Dwyer, Schurr and Oh (1987) proposed a framework for relationship development that was general enough to encompass all types of buyer-seller relationships including industrial and consumer markets. They postulated that the process evolves through five general phases: awareness, exploration, expansion, commitment, and dissolution. Priorities of the members of the dyad would differ depending upon the stage of the relationship.

Initial and Continuing Trust

As noted above, trust is a key component of traditional marketing relationships, and trust factors can change depending upon the stage of the relationship. It is reasonable to expect that the degree and type of trust factors may vary in web-based relationships (Ba 2001; Lewicki & Bunker 1996; Gupta, Yadav, & Varadarajan 2009). This notion is supported in a study by McKnight, Kacmar and Choudhury (2004) which indicated that trust factors differ in the introductory stage (before an interaction has occurred) and the exploratory stages (after the consumer has entered the website) of a consumer's experience with a website. In particular, they note that the bases of trust shift over time. For example, an individual's disposition to trust is a strong factor in the introductory stage while in later stages the individual's evaluation of site quality is more relevant.

While much of the research involves questioning subjects about their attitudes toward websites with which they are already familiar, McKnight, Choudhury and Kacmar (2002) note that "initial trust" or the user's initial trust in the Web vendor – "the period during which a consumer visits and explores a vendor's web site for the first time" (p.336) is particularly important if the relationship is to continue on to a transaction. Gefen, Karahanna, and Straub (2003) also note that trust antecedents may differ between those who have had experience (visiting and/or purchasing from a website) and those who have not.

DEFINING PERCEIVED SECURITY RISK

Most web administrators implement various security technologies on web applications to ensure the confidentiality and integrity of the information transmitted over the networked environment and the authenticity of users. These websites usually display specific security information to alert users of the security technology used. For example, when Secure Socket Layer (SSL) is used for web transactions, a SSL security padlock appears on the lower right corner of the browser to indicate a secure connection. However, poor web interface design often confuses users with inconsistent security information. When the security information displayed on an e-commerce website is confusing, users' trust in their services might not be correctly aligned with the actual security level provided by the web site. As a result, various online fraud, such as phishing or identity theft, might exploit the vulnerability of the users' inability to recognize genuine web sites.

Perceived security risk refers to an individual's judgment of how risky a certain computer related activity is. For example, students might provide their personal information to their school web site since they think that the school site is very secure and they sense a low security risk on the site. Perceived security risk can be measured based on the individual's perceived probability of risk, perceived consequences, and perceived controls (security countermeasures).

Understanding how individuals perceive the exposure and the effects of risk is considered an important part of analyzing and managing technology-induced risk (Morgan 1981). However, risk perception of computer security has yet to be fully studied although the general perception of risk has been found to greatly impact individual computer decisions (Hardee et al. 2006). Research has empirically verified that higher perceived security control

is positively related to trust in e-commerce websites (Chellappa & Pavlou 2002; Chen & Barnes 2007; Suh & Han 2003), users' intention of purchasing (Bhatnagar et al. 2000; Ranganathan & Ganapathy 2002; Salisbury et al. 2001; Suh & Han 2003) and in willingness to use online banking (Liao & Cheung 2002).

METHOD

In order to explore the factors that students consider when evaluating whether or not a website is secure and trustworthy, we developed a short online questionnaire. Two undergraduate marketing classes in the U.S. were directed to complete an anonymous online survey about their Internet experiences. The survey was done during class time and framed as an example of marketing research and demonstration of an online survey software (Qualtrics.com). The order of questions on security and trust were reversed for half the sample to eliminate order bias. There were two sections of questions. In part one, students were asked to list the five websites they use the most and why they go to these sites. In part two of the survey, they were asked several open-ended questions: (1) When would you trust a website? What are the signs and indications of a trustworthy website?; (2) Other than looking at the website itself, how else do you evaluate the trustworthiness of a website?; (3) How do you know a website is secure (i.e., your information is protected)? What are the signs and indications of a secure website?; (4) Other than looking at the website itself, how else do you evaluate the security of a website? After completion of the online surveys, students were debriefed and given the opportunity to comment on the study.

The authors of the study plus a graduate business student independently categorized the open-ended comments on security and trust and categorized them into themes. These were discussed and a consensus was reached on the themes.

RESULTS

A total of 53 students responded. Students were junior and seniors with an average age of 21.5. Seventy-four percent of the sample was female. The top three categories of web sites listed were search engines (e.g., google.com, yahoo.com), social networking (e.g., Facebook, Twitter, LinkedIn) and entertainment (e.g., youtube.com, hulu.com, perez Hilton.com). Table 1 lists all of the categories of the respondents' most visited websites.

Table 1: Frequency of websites most visited

Category	% and count
search engine	29.4 % (78)
social networking	29.4 % (78)
entertainment	12.1% (32)
school	10.9% (29)
news	10.9% (29)
retail shopping	7.9% (21)
financial services	4.2% (11)
Research	1.5% (5)
sports	1.5% (4)
travel	.075% (2)
blog	.038% (1)
food	.038% (1)

There was a wide range of responses among students as to how they evaluate the security and the trustworthiness of a site. We obtained about the same number of responses for trust and security, (99 and 97 comments, respectively). Interestingly, several students wrote that they had no idea how to make an evaluation of security. Four themes were derived from the open-ended comments on evaluating online trust: (1) previous experiences, (2) reputation, (3) web context, and (4) perceived security. Five themes emerged from the open-ended comments on evaluating online security: (1) web context, (2) environment, (3) reputation, (4) experiences from others, and (5) perceived privacy. Examples of these themes are presented in Tables 2 and 3.

Table 2: Categorization of student trust comments & representative responses

<u>PREVIOUS EXPERIENCES</u>
<ul style="list-style-type: none"> Popularity & references (friends' experiences, other sites, newspapers, billboards)
<i>"I trust it when it is popular and has been rated trustworthy and my friends have used it"</i>
<i>"Word of mouth and television or the news"</i>
<ul style="list-style-type: none"> Own past experiences
<i>"I have used it before and turns out that they are trustworthy"</i>
<u>REPUTATION</u>
<ul style="list-style-type: none"> Reputation
<i>"Brand recognition usually is a big part"</i>
<i>"A company that has a good reputation. If I wouldn't shop there in person, I wouldn't online."</i>
<i>"I just look for well known names when I put important information on websites. If I know the site is not well known, then I refrain from putting any information there."</i>
<ul style="list-style-type: none"> Credibility
<i>"... its credibility amongst everyone and their competitors"</i>
<i>"Signs on a trustworthy website could mean having a .gov or .edu ending, and having little or no ads or spam"</i>
<i>"if the website has good advertisement on the train or on billboards or if you hear about the new website on tv or read it on the newspapers"</i>
<ul style="list-style-type: none"> Longevity
<i>"I trust websites that seem to be well established and seem to have maturity"</i>
<i>"How long they have been around and if so far they have been useful and safe"</i>
<u>WEB CONTEXT</u>
<ul style="list-style-type: none"> Appearance (color, format, advertisement)
<i>"The website to me has to look legit. Little things such as the advertisements on the website, the format of the website, the small things that websites like to put at the bottom of their sites. I have to really search through a website to see if it seems legit to me or not. Many times I can tell right off the bat that a website is phony or untrustworthy."</i>
<i>"if there are spelling errors then the source is untrustworthy"</i>
<i>"when it doesn't look fake or ask me for a credit card"</i>
<u>PERCEIVED SECURITY</u>
<ul style="list-style-type: none"> Privacy (security policy or statement)
<i>"It will tell you that the website never asks for your username and or password and random times."</i>
<i>"if there are any privacy policies"</i>
<ul style="list-style-type: none"> Security software on one's own computers
<i>"I have Norton which lets me know if a site might be dangerous"</i>
<i>"I evaluate the security of the website by the help of my anti-virus protection warnings and notifications"</i>
<ul style="list-style-type: none"> Authentication
<i>"when they do not ask me to pay to get into the website"</i>
<i>"when it doesn't look fake or ask me for a credit card"</i>
<i>"if a pop window asks me if I would allow it always or temporarily to go to that page or if it says that the site is secured"</i>
<i>"when they don't ask for too much information or any at all / no pop ups or viruses occur"</i>
<ul style="list-style-type: none"> Perceived security measures; symbol; icons
<i>"the html address bar usually shows a lock and changes color"</i>
<i>"if it has a trusted certificate"</i>

Table 3: Categorization of student security comments & representative responses

<u>WEB CONTEXT</u>

<ul style="list-style-type: none"> • Specific security logo: e.g., certificate; security lock in the address bar; https; security assurance logo
<i>"Usually there is a symbol in the upper right hand corner of my browser that looks like a lock if the website is secure. Also there are sometimes things at the bottom of a website that let you know if it's secure."</i>
<ul style="list-style-type: none"> • Popup screen (indicates less security)
<i>"if it is not secure, my computer pops up a notice that asks if I would like to continue / anti virus protection pops up with a notice saying it can harm your computer then I do not use that site"</i>
ENVIRONMENT
<ul style="list-style-type: none"> • Anti-virus software/computer/firewall
<i>"if it has a firewall protection, or also if it asks you for a username and password and an email"</i>
REPUTATION
<ul style="list-style-type: none"> • Reputation
<i>"a well-known reputation for being secure"</i>
<i>"What other people say about it"</i>
<ul style="list-style-type: none"> • Contact information of sites
<i>"Many times the websites I use that hold my information are ones that are linked to big companies such as T-mobile or TD Bank so I know that if anything every went wrong I could just call the company."</i>
EXPERIENCES FROM OTHERS
<ul style="list-style-type: none"> • Popularity & reference (e.g., search engine, friends' experiences, own experiences, user review, customer comments)
<i>"I only use websites that I am familiar with when putting my personal information through the website."</i>
<i>"I never questioned a website unless I had never heard of it before. I feel like if everyone else is safe when using it, and the website is legally allowed to have our information, then it should be safe."</i>
<i>"Google the website itself and see if it's a scam or trustworthy."</i>
<i>"I don't know if they are secure or not , but I guess they are since my friends are using them"</i>
<i>"I just feel the Big Name Ones are definitely would be secure. e.g. Google, gmail"</i>
PRIVACY
<ul style="list-style-type: none"> • Privacy options and policies
<i>"a note will state that its secure, however you're taking a chance regardless"</i>
<i>"Typically websites, depending on their content, will not ask for personal information to simply browse the website. If I go onto a website and it instantly asks for information before I can access the content I leave."</i>
<i>"the privacy policies that they ask to accept or decline once the information is inputted"</i>

The open-ended comments provide evidence of considerable overlap between trust and security. Perceived security was listed as a way to evaluate the trustworthiness of site. On the other hand, trustworthiness was listed as an indication that the site was secure. The design of the website itself, for example a security padlock symbol, was considered both as an indicator of trust and of security. Prior experience, word of mouth, or recommendations from third party sources were also listed by the respondents both as signs of trustworthiness and security. While the academic literature clearly differentiates the constructs of trust and perceived security, it may be that student online users do not make these distinctions in their evaluations. Alternatively, it may be that the stage of the relationship predicts which factor, trust or security, is more prominent. The literature points to security as a basis of trust, but a reciprocal relationship may exist in that established trust makes one feel secure. Based on this exploratory study and a review of the literature the following research questions arise:

RQ1: Perceived security has a greater positive impact on trusting belief for an unknown site relative to a known site (a new relationship).

RQ2: Trusting belief has a greater positive impact on perceived security for a known website relative to an unknown site(an established relationship).

DISCUSSION AND FUTURE RESEARCH

This exploratory study provides insight into how students think about trust and security in an online environment. Because undergraduate students belong to a cohort that uses the web extensively for everything from social networking to shopping, it is important to understand how they protect themselves. Surprisingly, very few students could identify indicators of objective online security (such as the security padlock symbol). Many rely on word of mouth and some simply wrote that they had no idea how to evaluate security. As both consumers and future online business managers, it is important that students understand how to evaluate the trustworthiness and security of websites. From an educator's point of view, one future research question is how best to train students about online security.

Our results indicated that students relied on word of mouth and recommendations to evaluate trust and security. While well known companies can benefit from established brand equity and positive word of mouth, start-ups and less well known businesses may need to more carefully consider website design that will signal trust and security to new customers.

Our sample for this study consisted solely of U.S. students. However, research indicates that culture impacts privacy concerns, individual risk perception and perceived trust. For example, it has been argued that collectivists are less concerned about privacy than individualists (Milberg et al.1995). Culture also has an impact on individual risk attitude and risk perception (Weber and Hsee 1998). In addition, Aldiri et al. (2008) showed that initial trust differed across two cultural settings while Cyr et al. (2005) suggested that culture influences the perception of trust. Gefen et al. (2005) showed that culture impacts the relationship between trust and perceived usefulness. Srite and Karahanna (2006) examined the moderating impact of national cultural values on technology acceptance, finding that the relationship between perceived usefulness (utility) and intention is moderated by culture. Future research studies should also look at cultural values and their potential moderating influence in evaluations of trust and security in different online scenarios (e.g., shopping and social networking).

A limitation of our exploratory study is that we did not specify that the respondents consider a well known and an unfamiliar website when they answered the questions about trust and security. Future research using experimental design will be needed to examine the research questions posed in the prior section regarding perceptions of trust and security with familiar and unfamiliar websites.

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A SURVEY ON IMPACT OF E-COMMERCE ON LARGE AND SMEs IN DEVELOPING COUNTRIES CHALLENGES AND SUCESESS: CASE STUDY OF ZIMBABWE

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ABSTRACT

The use of the Internet along with a range of other information and communications technologies (ICT) is transforming how business is done locally and globally. The effects are sometimes dramatic in developed countries. There are even a growing number of examples of the use of ICT for electronic commerce (e-commerce) in developing countries. The effects to date, though, are small compared to what is expected to occur in the next decades. Forecasters all agree that how business is done will be profoundly affected by ICT, i.e., they do not agree on what the exact effects will be. They face obstacles and constraints specific to the developing countries in which they operate such as higher costs to access the Internet and language barriers. A recent survey by that we conducted found that one of the major obstacles to using electronic commerce was lack of understanding of electronic commerce techniques and the technology needed to use it.

INTRODUCTION

Electronic commerce is about doing business electronically. It is based on the processing and transmission of data, including text, sound and video. It encompasses many diverse activities including electronic trading of goods and services, online delivery of digital content, electronic fund transfers, electronic share trading, electronic bills of lading, commercial auctions, online sourcing, public procurement, direct consumer marketing, and after-sales service as supporter by Lee M ,et al,2001 and also McKnight et al, 2002. E-commerce is broadly categorized under four main areas of activity which includes business-to-business (B2B), business-to -government (B2G), business-to-consumer (B2C) and consumer-to-consumer (C2C). Magee M (2002) defines electronic commerce, as the use of ICT in any way that improves a SME's relationships with customers or suppliers. This includes actually transacting business electronically which encompass issues like placing orders, invoices, shipment documents, finding potential customers and suppliers, offering entirely new products and services and more. These changes may mean more international business, but not necessarily. Rose B, et al (2002) and Urban G, et al (2002) also supports e-commerce as it may be easier and make much more sense to focus on domestic markets.

OBJECTIVES

The major objective of this study was to explore e-commerce associated infrastructure, socio- economic as they relate to Zimbabwe as a developing nation with consideration to all the government efforts to improve IT in all

sectors of the economy. We also looked on successes and challenges that are currently being faced by small to medium enterprises when they want to effectively make use of e-commerce to its fullest advantages. We also make some recommendations on what should be done to improve the current status of ecommerce in developing nations since they face similar problems regarding their strive towards achieving the benefits for e-commerce

RELATED WORK

In advance economies the use of e-commerce has become a prerequisite for competing well in markets, for dealing with other business partners and customers. Dell, which is a computer company, also sells its computers and various accessories online. Amazon.com is a very popular web based seller bookseller but currently it is now using making very huge profits not by selling books but also by reselling its underlying infrastructure to other companies even its competitors. This is idea of e-commerce is still in its infancy in developing nations due to the fact that legislative in place are not favourable to e-commerce like high import duties of IT equipment needed. Customer (business or consumer) expectations are changing. These effects may be less apparent in developing countries today, but are stark business reality in the markets in which businesses in developing countries strive to participate. SMEs in developing countries contribute about 70% of employment and the government in developing nations should seriously consider improving this sector to realise its full potential benefits. McKnight, et al (2001) said a business in a developing country might be able to use an e-marketplace or even internet searches to figure out market prices for one of its products so it can compete better and win new customers from internationally established companies. Many SME's can also gain a competitive edge by using the Internet well to do market research, find information on competitors and track down leads for new customers, or provide better customer support. Several governments in developing countries are now implementing and or planning e-commerce projects of their own for public procurements, e.g., Romania, and Chile as supported by Rose B, et al (2002).

Although a number of e-commerce activities are emerging in most African countries, its growth has been slow for a variety of reasons, including low levels of Internet penetration and limited communication infrastructure. Many Africans are still unaware of the opportunities offered by e-commerce. The African private sector consists mostly of small, medium, and micro-sized enterprises (SMEs) and the informal sector. Travicia B (2002) conducted a similar study on Mozambique shows that e-commerce and e-business do not formally exist in Mozambique. The major obstacles include lack of suitable legal framework and security instruments, inadequate banking systems, poorly developed telecommunications infrastructure, especially beyond urban areas, and high rates of illiteracy. Twenty companies out of 66 surveyed have websites and this low proportion by world standards was considered a barrier for e-commerce and e-business development. Much still needs to be done to encourage e-commerce in Africa. Lee, et al (2001) noted that the key steps include the rapid development of human resources, greater attention paid to e-literacy among citizens and activities to build capacity, particularly to provide a skills base among SMEs for e-commerce. Governments should encourage business start-ups and incubation projects that advance this activity, including through public-private partnerships, and to pay particular attention to getting women engaged in e-enterprises.

DESIGN AND PROCEDURE

We developed a questionnaire to collect data from the selected organisations. It contained questions designed to collect information on demographics, internet usage, and e-commerce activities which includes how frequency of commerce and type of purchase, means used for purchase, transaction experience, and perceptions of e-commerce in Zimbabwe including the challenges and success of e-commerce of the selected SMEs some does not have websites and other have. A case study approach was used to perform a detailed study of thirty companies. In order to yield the most generalisable result, the subject companies were selected from different industries. This study also used the following 2x2 matrix, based on business focus and business format, to guide the selection of successful Zimbabwe e-commerce companies. We conducted interviews with the IT experts in these companies and academics who are involved in e-commerce business. Based on the response we managed to classify the successful companies in the 2*2 matrix below

Table 1. Types of e-commerce

	B2C	B2B
Online based	Hotels	circle cement
Traditional based	Bus Transport services	OK shops

Table 2: Description of the type of industry

Name of company	Nature of industry	Description
Rainbow Towers	Online tourism industry	Successful online tourism
Pioneer Transport	Online transport company	Bus company
Circle Cement	Online cement manufacturing company	provides cement to construction industry
OK Zimbabwe	Retail company	Food retail company
Lobels	Confectionery company	Makes all confectionery related goods
Afrosoft	Software development company	A successful software development company

We asked our study participants about their clients internet usage to identify their familiarity with technology and their access to internet, and their e-commerce participation to determine their ability, that is, access to type of medium used for payment which includes possession of visa cards to make payments online and whether they purchased any goods/services, using e-commerce, in the current years and previously and if so how often. The participants who responded that their clients used visa cards to make payments online were asked as to how frequently they make their purchases, they type of products or services which they usually buy with their visa and also the highest total value of their single purchase. They were also asked as to whether their clients were buying these products or services in Zimbabwe or abroad and also to list other payments options which are available apart from the use of their visa cards. They were also asked about their clients' reasons for utilizing e-commerce and their rate of their overall satisfaction with the activity and to provide unstructured comments on what they consider to be impediments to the development of e-commerce in Zimbabwe and also to provide a detailed feedback on the overall perceptions of the Zimbabweans in using technology as a means of trading and selling. There was also a section on the questionnaire which asked for respondents to reply if they also accept payments by visa cards from their customers or they traded in hard cash. The unstructured section of the questionnaire and the follow-up unstructured interviews were used to further explore and to identify perceptions on positive and negative aspects of ecommerce in Zimbabwe as it currently exists, future of e-commerce in Zimbabwe, and any other issues that we might have overlooked and include in our questionnaire. These comments, in some cases, provided additional information, and in others, reinforced the previous responses and strengthened the data we collected through other questions.

RESULTS AND DISCUSSION

The following section describes the success and challenges which are noted on e-commerce.

Up to date and convenient Websites

All companies developed websites to provide convenient online shopping/business purchasing to their customers. Website access was quick. All subject companies offered large product/service selection, and, thus, designed their websites to be easy to navigate and product/service information was easy to find. Online transaction processes were intuitive involving only a few steps with clear instructions. In addition, all business to commerce subject companies offered a variety of payment methods to customers. The majority of Zimbabwe online consumers were not credit card holders. At the same time, they were still cautious about using their credit cards online. Rainbow Towers hotels and OK Zimbabwe, for example, offered a variety of payment methods including e-payment, money transfer, pay through cell-phone, and pay at delivery. Business to business subject companies' websites also provided value-added services, such as creating sale reports and downloading product documents for clients.

High cost and unreliable internet connection

While there were several web-hosting companies in Zimbabwe to choose from, the quality of internet connection was generally still unreliable. Also the prices of accessing internet are still very high compared to other countries in the region. They about double the prices offered in the region. There are also frequent power cuts which are not scheduled and this in the end do not just hurt Zimbabwean e-commerce ventures more than visitors not being able to access the websites. Companies lost credibility and potential sales. According to Circle Cement, dealers wasted 60% of their time on communication from end-to-end due to the slow speed of the internet. All visited companies also pointed out that they carefully selected internet service provider/web hosting companies like ComOne and ZimOnline which they do believe are capable of offering reliable uptime, large bandwidth, and database technologies that could handle multiple entries and that offered strong technical support. Successful Zimbabwean online merchants also looked at the popularity of web hosting companies to ensure that they had sufficient members and a steady growth of new members thus it is on paramount importance to offer excellent services to the clients. It has also been noted that it will be good for companies to use more than one web hosting company so that if one fails to provide service at any moment, another will provide service.

Compromising of privacy and online security

With the increasing frequency of online fraud even taking place in developed nations, the major concern of Zimbabwean customers was whether an online buying was trustworthy and had the capability to protect credit card information from online intruders. All visited companies were quick to say that they offer security to online purchase which include secure socket which again will be verified by visa. Frantic efforts also have been made to ensure that issue regarding security will also be documented on the organisational website.

Lack of strong Information Technology capability and lack of confidence in e-commerce

Zimbabwe still lacked qualified personnel in information technology (IT) who possessed strong e-commerce-related IT knowledge and experience. All B2C subject companies were among the early e-commerce adopters, and, thus, finding qualified IT personnel was a challenge. The few trained IT professionals have left the country in the last decade because of economic hardship. Also because of the hyperinflation around 10 quintillion percent in 2008 many clients real purchasing power have been eroded and now they have very low confidence in conducting even transactions online.

Competitive prices and promotion

The majority of clients in Zimbabwe like to bargain therefore they tried to lure customers to their websites by constantly offering competitive prices and/or special promotion. For example, OK Zimbabwe offered different online promotions that were different from retail stores' like Spar and TM to encourage customers to do shopping with them by offering guarantee-lower-price merchandise. According to the General Manager OK

Zimbabwe he said that first time customers were usually concerned about the risk of online shopping on an unfamiliar website. The company used low prices and special promotions to offset the risk of online shopping and expedite consumers' buying decisions. After customers had positive experiences with OK Zimbabwe, they were more likely to come back. In fact, the company had over 50% return customer rating. Competitive prices and promotion also played critical roles in B2B e-commerce. It was more convenient for clients to place orders through a familiar sales force, and they could negotiate prices.

Offering large product selection and availability

All visited companies provided a large product selection, so Zimbabwean customers were more likely to find what they are looking for on their websites. However, a large product selection will mean nothing if products are not available. For B2C subject companies, the convenience of purchasing products at retail stores in Zimbabwean made the product availability critical to their success. Product availability was also critical to the success of all B2B subject companies. According to OK Zimbabwe, product availability was critical to its online service since the majority of online vendors because they needed merchandises immediately. An online ordering service allowed them to place an order at any time without waiting for a sales person.

Time frame order fulfilment

One of the major concerns of Zimbabwean customers was whether online orders would be delivered in a promised timeframe. In many cases, merchandise was used as raw material or resold to clients' customers. If products are not delivered as scheduled, clients will lose business. The researcher found that delivery service could be a major challenge for business to business ecommerce ventures due to the inefficiency of Zimbabwe logistics infrastructure. Moreover, third party logistics providers in Zimbabwe were expensive, and only large B2B organizations could afford their services. OK Zimbabwe had its own logistic networks, which allowed them to deliver merchandise around the country within a promised time frame. Otherwise the majority of SMEs are still having a problem of delivering the product or service to the client in an agreed time frame.

Building customer service and customer relationship

Service plays an important role in any society. Customer service is used by Zimbabwean businesses to build personal long-term relationship with customers. Having strong customer relationships allows them to develop customer trust and create customer loyalty. According to the sales manager of Rainbow Towers Hotel customers felt that they developed connection with the company by talking with a customer service, which, in return, provided them with extra care and better offers. In most B2C and B2B subject companies, a call centre and an online chat were common methods used to provide support. Rainbow Towers Hotel, for example, called first time customers to ensure that they felt comfortable with the company's online service. When clients had any problems using their websites, the companies immediately assisted them through a phone call. Besides the call centre, Rainbow Towers Hotel used the MSN chat to answer customers' questions ordering processes, and return policy, and to build customers' confidence in its online service. The researcher observed that customer support and strong relationship with clients helped business clients facilitate adoption and implementation of an e-commerce system. In many cases, an online service often required some degree of systems integration with clients' backend systems and/or required clients to change their business practices, such as procurement processes.

CONCLUSION

The market ultimately drives e-commerce development, but it is the private sector that fuels it. Government should provide incentives to encourage widespread e-commerce use by SMEs. An "e-SME development program" in which various sectors can provide technical assistance to SMEs to promote ecommerce uptake, can also be developed. Banks, financial lending and training institutions, and corporations should be encouraged to develop "SME desks" that will address the specific needs of SMEs. Government can also design and establish a legal and judiciary framework that provides for minimum standards of and requirements for transparency,

impartiality and timeliness. While in many developing countries this may be a very ambitious goal, in the medium term SMEs may use self-regulated codes of conduct covering, for example, return policy, data protection, and acceptable forms of content, that are applicable within associations, cooperatives or their respective groups of peers and e-entrepreneurs. It is important to have not only a rating system but also an enforcement regime that people trust.

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THE INFLUENCE OF DEMOGRAPHIC VARIABLES ON SURVIVOR QUALITIES – ATTITUDE, COMMITMENT AND MOTIVATION AFTER DOWNSIZING

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ABSTRACT

Research evidence has tended to trivialised the influence of demographic variables on survivor qualities after downsizing. This study examined the influence of age, educational level and years of experience on survivor quality components (attitude, commitment and motivation) after downsizing in selected manufacturing organisations in an economically unstable environment. One hundred and fifty survivors (n = 150) participated in the study. Using the no intercept multivariate multiple regression analysis, results showed that age and educational levels influenced survivor attitudes; age, educational level and years of experience influenced survivor motivation and commitment. Suggestions for the effective management of survivors after downsizing are provided.

INTRODUCTION

Business challenges caused by increased oil prices, political instabilities and HIV/AIDs necessitate organizations to look for strategies intended to reduce expenses, enhance performance, and maximise productivity in order to remain competitive (Taylor, 2008). The most cost saving strategy adopted by organisations in response to the challenges is to reduce expenditure on manpower through downsizing. Downsizing is a deliberate organisational decision to reduce the workforce in order to increase organisational performance. Its adoption as a business strategy is based on the notion that ‘lean means better’. The result is an organisation with a small group of workers known as survivors who are expected to increase the organisation’s competitive advantage (Noer (2001). However, a grave problem of survivor quality arises. Survivor quality is defined as the survivors’ attitude, commitment and motivation in the new work situation after downsizing (Vinten & Lane, 2002). It is viewed as a critical component in guaranteeing increased productivity and long-term growth and productivity after downsizing (Littler, Wiesner & Dunford, 2003). Often management overlooks the psychological effect of downsizing in terms of survivor quality when, in actual fact, downsizing leaves the survivors frustrated, anxious, resistant and with the “wait and see” attitude, a scenario also known as ‘survivor syndrome’ (Kusum, 2004; Vinten & Lane, 2002).

There is no doubt that while organisations adapt to the new and often challenging environmental changes through downsizing, planning for the process is critical in order to avoid ‘survivor syndrome’. The planning process should take into account factors that affect survivor qualities. Documented evidence shows that survivor qualities are can be affected by organisational factors such as downsizing strategy, communication style and rewards given to victims (Kusum, 2004). Thus, survivor qualities undergo some change as downsizing begins or after it ends (Frydenberg & Lewis, (2002). However, not much is known on whether certain individual demographic factors also contribute to survivor qualities in the aftermath of downsizing. The likely strong link between certain demographic variables and survivor qualities after downsizing is the key interest of this study.

The study explores the influence of specific demographic variables on survivor qualities of attitudes, commitment and motivation with a view to identifying the extent to which these variables are predictive of survivor qualities.

Theoretical Framework

Survivors reactions to downsizing, which in turn influence their survivor qualities is grounded in the organisational justice theory (Greenberg, 1987), and the attribution theory (Weiner, 1995). Organisational justice is defined as employees' perceptions of the fairness with which they have been treated by an organisation (Campbell & Finch, 2004). The theory focuses on perceptions of fairness in organisations, by categorising employees' views and feelings about their treatment and that of others within an organisation (Saunders & Thornhill, 2003). Three types of organisation justice theory have been identified in literature. Perceptions about outcomes of decisions taken form the basis of distributive justice (Campbell and Finch, 2004), perceptions about the process used to arrive at decisions to downsize form the basis of procedural justice (Cropanzano & Greenberg, 2001) while perceptions about the quality of the interpersonal treatment that an individual receives during the enactment of organisational procedures form the basis of interactional justice (Campbell & Finch, 2004). Within the downsizing context, organisational justice perceptions might be influenced by an individual's demographic characteristics which in turn influence survivor qualities of survivors. Attribution theory provides another framework for analysing potential influence of demographic factors on the reactions of employees who survive organisational downsizing. Attribution theory focuses on causal attributions – subjective thoughts about the causes of a given outcome and their link to affective and behavioural reactions. Downsizing involves major changes for the individual and the organisation as a whole. Such a situation is likely to lead to emotional reactions on the part of the individuals at the nexus of the event (Mossholder, Setton, Armenakis, & Harris, 2000). Emotions arise from the way a person appraises a given situation. One type of appraisal known to contribute to an emotional reaction and, which may play an important role in the context of downsizing is attribution information, that is, information concerning the reasons underlying the given outcomes. Within the downsizing context, such appraisals might vary according to specific demographic variables among survivors and the net effect is on the nature of survivor qualities.

LITERATURE REVIEW

Although the influence of demographic variables on survivor qualities after downsizing has not received much attention in literature, evidence inferred from the limited but related studies suggest the existence or non – existence of a relationship between the two. For example, age differences in commitment levels have been reported by Finegold, Mohrman and Spreitzer (2002). Sronce and McKinley (2006) found that age increased the perception that downsizing is financially effective and reduced the perception that downsizing is inevitable. In addition, for those organisations that had experienced several previous downsizing, oldest employees were found to be more positive to organisational change (Ursin & Eriksen, 2004). This is in contrast with the popular belief that younger employees want change and the older ones are conservative and are afraid of changes (Svensen, Neste, & Eriksen, 2007). These studies seem to suggest that age can play a very important role in how survivors might react to downsizing. That being the case, however, the question that remains is whether age alone can influence survivors' reaction or the influence is mediated by other variables within the downsizing context. Therefore we hypothesise that:

H1: There is significant influence of age on survivors' attitude, commitment and motivation after downsizing

For organisational commitment, researchers have found that educated women expressed significantly higher commitment to the organisation than men (Loscocco, 1990), significantly lower commitment than men (Marsden, Kalleberge & Cook, 1993) and similar levels of commitment with men (Aven, Parker, & McEvoy, 1993). On the other hand, Glisson and Durick (1988) reported that older, less educated men and women with a greater sense of competence had higher levels of organisational commitment. This suggests that, probably, given the same history and equal vulnerability, less educated men and women react similarly to organisational downsizing. Sronce and McKinley (2006) reported that higher levels of education reduced the perception that downsizing is financially effective and increased the perception that downsizing constitutes a breach of the employment contract. These results are consistent with the notion that older, better educated employees are more skeptical about downsizing (Svensen, *et al.* 2007). Thus, we hypothesise that:

H2: There is a significant influence of education on survivors' attitudes, commitment and motivation after downsizing

Some studies (Iverson & Pullman, 2000) have found that age and tenure have a negative relationship with voluntary turnover. The finding supports the notion that tenure on the job can have a significant impact on individual's job-related attitudes such as job satisfaction and organisational commitment. When an individual has been on the job in the same company for a long time, his/her investments in the organisation (sunk costs) may be greater than someone who has been on the job for a shorter period (Lim & Leo, 1998). Thus, in the context of downsizing, older employees might tend to believe that they have invested so much effort and time and therefore adjust their expectations and accept the fact that opportunities are limited. As a result, their commitment levels are likely to be very high. In contrast, younger employees might show high intention to leave, based on the explanation that they have reached a stage in their career where they have experienced frustrated ambitions and may perceive that they have acquired the work experience and skills which will make them employable elsewhere (Lim & Leo, 1998). Our developed hypothesis was that:

H3: There is a significant influence of years of experience on survivors' attitude, commitment and motivation after downsizing

The present study's findings should enhance our understanding of human resources policies and practices on downsizing that are meant to improve survivor performance after downsizing. Although much of the literature on demographic variables in the context of change is overwhelming, it has tended to trivialise their influence on survivor qualities after downsizing (Spalter-Roth & Deitch, 1999). Similarly, interest with demographic variables and downsizing has been on controlling their effects when investigated with other variables (Willcoxson, 2006). This has not resulted in any cumulative body of knowledge since it fell short of exploring the influence of individual demographic variables on survivor qualities after downsizing in developing and unstable contexts in Africa. Therefore, the present study will add to the body of knowledge by attempting to further fill this gap and providing some empirical evidence from a developing and unstable context.

Objectives of the study

- To determine survivors' levels of attitudes, commitment and motivation after downsizing;
- To determine the influence of age, educational level and years of experience on survivors' attitudes, commitment and motivation after downsizing, and
- To formulate recommendations to downsizing planners in terms of survivor quality management.

METHOD

Data collection: Four months before the actual data collection, permission was sought from the 13 identified downsized organisations. The selected organisations had downsized in the previous year or two to ensure that survivors still had the memory of the downsizing event. Only downsized manufacturing organisations that employed 50 or more people and had clear organisational structures were selected. Data was collected using questionnaires administered by the Human Resource person from each organisation to ensure generalisability to the target population with a minimum margin of error. In each participating organisation, the instrument was administered on randomly selected survivors. Clear instructions were given to the human resources person regarding how the respondents were to complete the questionnaire. Data was collected over a period of three months and the contact person in each organisation would make a follow up every other week.

Sample: Survey data was collected from survivors in the 13 identified manufacturing organisations that had downsized in Zimbabwe. An adjusted sample size of 226 was determined based on Saunders and Thornhill (2003) recommendation that where the population of the study is less than 10 000, a smaller sample size can be used without affecting accuracy. A total number of 500 questionnaires were distributed, 100 in each of the city or town where the identified organisations were located. A follow up of the questionnaires showed a marked increase in the total response rate from all the towns and cities from the first month 42(18.6%) to the third month 64(28.3%). At the end of the data collection phase, the total number of the completed questionnaires was 150. Given that the determined adjusted sample size of the study was 226, the final sample figure of 150 represented a response rate of 66.4%. In the sample used for the study, close to 95% (140) of the respondents were black and 122 (82.4%) were males. About half of the respondents were in the 31-39 years age group followed by about 35% (53) being older than that. The respondents were not equally distributed according to

educational level with 133 (91.7%) who had at most diploma level education. Five respondents did not provide their educational levels. The majority 93 (62.4%) of these respondents had at least 11 years experience with the organisation while 16 (10.7%) had less than three years and the rest had between 4 and 10 years experience.

Measures: The measures for the study's variables, their sources, and the alpha of the current sample are shown in Table 1. The questionnaire was divided into nine sections, A to I. Section A dealt with the classification of respondents (biographical details) and contained a nominal scale of measurement, using eight categorical variables. Aspects covered included: position in the organisation, educational level, age, race, gender, language, and years of experience with the organisation. Sections B to I had variables measured on a numerically 5-point Likert scale. The verbal scale utilised in each section differed according to how the main instructions were worded.

Table 1: Questionnaire Measures (Sources and Coefficient alpha)

Section	Study variables	No. of Items	Source of Scale	Cronbach's alpha
B & C	Job Security	20	Ashford, Lee and Bobko (2000)	0.85
D	Control	3	Ashford, Lee and Bobko (2000)	0.75
E	Satisfaction	22	Smith, Kendal and Hulin (1965) cited in Schwepker (2001)	0.89
F	Involvement	11	Lodahl and Kejner (1965) cited in Reeve and Smith (2008)	0.71
G	Future plans	3	Bluedorn (1982), Lucas (1985)	0.89
H	Commitment	13	Bagraim (2004)	0.85
I	Motivation	10	Hackman and Oldham (1975) cited in Ryan (1989)	0.88
Total number of items		82		

As shown in Table 1, the within-section Cronbach's alpha coefficients were quite high with the lowest being 71% detected for the job involvement section. This is evidence that each section clearly dealt with a single issue/aspect. Therefore, survivor attitude, commitment and motivation were derived from the original variables generated from the questionnaire based on results of a reliability analysis of the instrument.

DATA ANALYSIS, RESULTS AND INTERPRETATIONS

Measures of Central Tendency: The derived variables of attitude, commitment and motivation were measured on a continuous scale within the interval [1; 5] while all demographic variables were categorical. In order to determine the attitude, commitment and motivation levels of survivors after downsizing (*objective 1*), measures of central tendency and dispersion for the responses of each variable were computed. The results of the analysis are shown in Table 2.

Table 2: Means, Standard Deviations and Confidence Intervals

Variable	N	Mean	Std Dev	Lower 95% CL for Mean	Upper 95% CL for Mean
Survivor attitude	103	2.8924	0.3935	2.8156	2.9694
Survivor commitment	128	3.3201	0.7189	3.1944	3.4458
Survivor motivation	139	3.4187	0.7976	3.2849	3.5525

As shown in Table 2, the mean survivor motivation score of 3.4 was the highest, while survivor commitment and motivation were found to be average to satisfactory as reflected by 95% confidence intervals of the mean scores contained within [3.1,3.5]. Survivor attitude on the other hand was average as shown by a

central 95% confidence interval of the mean score of [2.8, 3.0]. Higher mean scores reflect higher reported levels of the variable.

Regression Analysis: In order to test the hypotheses of the study, the derived measures of attitude, commitment and motivation were compared with demographic characteristics. The sample used was biased towards the variables race, gender and language hence they were not used in the study. This left educational level, age and experience as the only potentially interesting biographical variables. These demographic variables were considered as potential predictors of survivor attitude, commitment and motivation. At 5% level of significance, the no intercept multivariate multiple regression analysis was used to test for the significance of the effects of these demographic variables on survivor attitude, commitment and motivation. The results are presented in Table 3.

Table 3: Results of Multivariate Multiple Linear Regression Analysis

Response	Model F	p-value	Rsq
Attitude	323.00	0.0001	0.97
Commitment	244.93	0.0001	0.96
Motivation	214.11	0.0001	0.95

Table 3 shows that the responses attitude, commitment and motivation significantly depended on biographical variables. High model F values and very small p-values supported by coefficients of determination greater than 0.95 provide evidence of the significance of the regressions. However, this does not give us the effects of the individual predictors. This information was determined through estimating the model parameters.

Parameter estimates for survivor attitude: As shown in Table 4, the regression of survivor attitude on biographical characteristics alone showed that only educational level ($t=7.56$, $p<0.0001$) and age ($t=5.61$, $p<0.0001$) have significant effects on survivor attitude and variations in these variables explain 96% of the variation in survivor attitude. This suggests that educational level and age alone were good predictors of survivor attitude. As indicated, the respondents' age had a higher effect than their educational level based on the magnitude of the parameter estimates.

Table 4: Regression of Survivor Attitude on Biographical Variables

Predictor Variables	DF	Coefficient	Standard Error	t Value	Pr > t
Education	1	0.35300	0.04670	7.56	<.0001
Age	1	0.50614	0.09023	5.61	<.0001
Experience	1	0.14256	0.07613	1.87	0.0643

$F_{3,91} = 672.90$ (<0.0001) $R^2 = 0.9569$ $\bar{R}^2 = 0.9554$ $n = 94$

This means that in the absence or presence of any other variables, age and educational level had a statistically significant effect on survivor attitude.

Parameter estimates for survivor motivation: The regression on biographical variables as indicated in Table 5 shows that all the biographical characteristics significantly affect survivor motivation. Variation in survivor motivation was explained by variation in education ($t=6.30$, $p<0.0001$), age ($t=2.78$, $p<0.0066$) and years of experience in the organisation ($t=3.06$, $p<0.0029$). This model explains 93% of survivor motivation.

Table 5: Regression of Survivor Motivation on Biographical Variables

Predictor Variables	DF	Coefficient	Standard Error	t Value	Pr > t
Education	1	0.46	0.07255	6.30	<.0001
Age	1	0.39	0.14019	2.78	0.0066

Experience	1	0.36	0.11828	3.06	0.0029
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$F_{3,91} = 401.87 (<0.0001)$
 $R^2 = 0.9298$
 $\overline{R}^2 = 0.9275$
 $n = 94$

Parameter estimates for survivor commitment: Table 6 illustrates that all the biographical characteristics had statistically significant effects on survivor commitment and that they explained 94% of survivor commitment. Based on that criterion, biographical characteristics can be regarded as better predictors of survivor commitment compared to the downsizing strategy. Age had the highest effect of all the biographical characteristics ($t=4.58$, $p<0.0001$).

Table 6: Regression of Survivor Commitment on Biographical Variables

Predictor Variables	DF	Coefficient	Standard Error	t Value	Pr > t
Education	1	0.32	0.06270	5.13	<.0001
Age	1	0.55	0.12115	4.58	<.0001
Experience	1	0.25	0.10222	2.49	0.0147

$F_{3,91} = 499.36 (<0.0001)$
 $R^2 = 0.9427$
 $\overline{R}^2 = 0.9408$
 $n = 94$

Based on the above results, hypotheses 1 and 2 were all accepted. Hypothesis 3 was partially accepted because experience was not a predictor of survivor attitudes.

DISCUSSIONS AND MANAGERIAL IMPLICATIONS

The main purpose of this study was twofold: (1) to establish the attitudinal, commitment and motivational levels of survivors after downsizing, and (2) to determine the influence of age, educational level and years of experience on survivor qualities of attitudes, commitment and motivation after downsizing in an economically volatile environment. The influence of demographic variables on survivor qualities after downsizing in a developing context with an unstable economy does not have strong empirical support in literature.

The results indicate that survivor motivation was high and, survivor attitude and commitment were average to satisfactory. The high level of motivation shown by survivors in the present study is supported by motivational studies in the context of change (e. g., Brockner, Grover, Reed & DeWitt, 1992) which explain lay-off survivors reactions to change as influenced by survivors' perception of the outcome-input ratio. Thus, the high levels of motivation reflected survivors' effort to reduce the feelings of inequity they had experienced when the process of downsizing was unfolding. The average to satisfactory levels of commitment observed among survivors is supported by previous studies which point out that there is a positive relationship between justice perceptions and continuance commitment (Cohen-Charash & Spector, 2001), and affective commitment (Hendrix, Robbins, Miller and Summer, 1998) after downsizing. Based on these previous findings, the average levels of commitment could be attributed to survivors feeling that they had made investments in their organisations and, therefore, the organisation's decision to downsize was perceived as management's attempt to be fair. Survivors showed average to satisfactory levels of attitude, meaning that after downsizing, they were moderately satisfied with their jobs, moderately involved with their jobs, and felt moderately secure in their current positions. The literature (Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002) argues that downsizing makes survivors develop affective and cognitive feelings about their organisations and jobs. The antecedents of such thoughts and feelings, such as fair interactions might have been addressed, but survivors had a lot of other reservations about the whole process.

The results presented show that age had an influence on survivor attitudes, motivation and commitment.. Reported literature found that older employees are more positive to organisational change than younger ones (Ursin & Eriksen, 2004) because they have more work experience. With regard to the effect of age on motivation, the American Management Association (1996) provided evidence to show that downsizing has an immediate effect on older survivors' trust and morale. On the other hand, organisation change studies (e. g.,

Hitt, Miller & Colella, 2006) have documented that commitment to the organisation is correlated with the age of employees.

Education had an influence on all the three demographic variables. The results showed that older and less educated survivors contributed more to attitude level obtained. This contradicts Svensen, *et al.* (2007) who reported that during the early stages of downsizing, when controlled for number of years working in the company, older and more educated employees are more positively involved in their jobs and perceive less threat to their jobs in the future than the younger ones. Although the relationship between educational level and survivor motivation has not received that much attention in the downsizing context, related evidence shows that educated employees are more likely to be motivated to assume job tasks requiring the use of a wider variety of skills (Glisson & Durick, 1998). In the context of downsizing, this can be interpreted as meaning that survivors see this as an opportunity to do other tasks previously done by the laid-off, thus enhancing their career. Higher levels of education have been found to increase the perception that downsizing is financially effective (Sronce & McKinley, 2006). This might have an effect on survivor commitment in the aftermath of downsizing.

Years of experience with the organisation was found to have an influence on survivor motivation and commitment and not on survivor attitude.. Svensen *et al.* (2007) concur with the present finding when they found that the employment period had an effect on the development of positive attitudes and motivation to a change process. Similarly, Marshall and Bonner (2003) found that the number of years a worker had been in the organisation as well as the age, regardless of whether old or young, was positively associated with commitment.

Managerial implications: This study has a number of managerial implications. Firstly, the results support the need for managerial knowledge of the environment/context in which downsizing takes place. Secondly, it is critical for HR practitioners/managers to distinguish the different effects of each of the selected demographic on survivor qualities. Thirdly, it is a critical managerial responsibility to search for, identify and decide the criteria, processes and procedures they use when downsizing. Lastly, the results offer leads for differential and careful treatment of employees of different age, education and experience during or after downsizing.

Limitations of the study: The study was designed to collect information from those employees whose organisations had downsized at least two years previously. There was no guarantee for the researcher that some of the survivors still had the organisational memory of what really took place. Those who participated in the study were mostly males. This unequal distribution with regards to gender might be problematic since some other factors relevant to females might have been omitted. Studies have shown that women of a certain age tend to have continuous work histories and are therefore not vulnerable to lay-off (Kozlowski, Chao, Smith & Hedlund, 1993). The unique environment where the study was conducted raises questions of generalisability. Data were collected from manufacturing organisations involved in different business activities. Assuming that each organisation had developed its own personality and culture, the results could be a reflection of feelings and perceptions of survivors from one organisation which had more respondents than the others. This means that the results' applicability might also present some problems.

Future research might want to look more at other demographic factors and compare the results across contexts. Alternatively, other individual factors such as personality factors might also need to be considered. There might also be a need to measure survivor qualities before downsizing.

CONCLUSIONS

The uniqueness and strength of this study is its focus on investigating the influence of age, educational level and years of experience on survivor quality in a single study in an economically unstable context. In summary, the paper has directed attention towards a relatively new concept in HRM and organizational behavior –that is, survivor quality(s). Results have identified key demographic predictors of survivor qualities. It also found that when organisations downsize in an unstable economic environment, experience does not have an influence on survivor attitude. Although future research might be welcome in further clarifying the present findings, the managerial implications are clear as downsizing planners may benefit from instituting policies that focus on

considering demographic variables when downsizing. The research contributes to the relatively lack of empirical evidence on the influence of some demographic variables on survivor qualities in the downsizing context.

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FACIAL EXPRESSIONS AND CUSTOMER TYPES: AN EMPIRICAL ANALYSIS

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ABSTRACT

This study empirically propagates a customer categorisation scheme, which involves classifying customers into four categories based on facial expressions. The data gathering included on-site visits to three electronic store chains in Auckland and asking salespeople to individually complete a questionnaire, resulting in 98 usable responses. The results reveal that the respondents feel that customers can be categorised into specific groups based on facial expressions, inter alia Browsers, Future Buyer, Potential Buyer, and Buyers. The results further indicates that each customer category has different types of facial expression. "Browsers" exhibit facial expressions of anger, sadness, fear, and disgust, while "Future Buyers" seemingly always exhibit neutral facial expressions, and "Potential Buyers" have surprised facial expressions. "Buyers" are considered by all respondents to always with satisfied facial expressions. In addition, this study also reveals that demographic factors do not significantly affect the classification of facial expressions.

INTRODUCTION

Computer Scientists, Ekman and Friesen (1978), developed the Facial Action Coding System that has been used by computer technologist to detect, recognise, and analyse human faces. For example, Ahlberg and Forchheimer (2003) presented a face and facial feature tracking system able to extract animation parameters describing the motion and articulation of a human face in real-time on consumer hardware. Shergill et al. (2008) on the other hand proposed that computer technology could be used to measure consumer interest. These computer technologists designed a *Computerised Sales Assistant* using a computer to analyse customers' facial expressions during shopping, and to recognise customer types. These scholars believe that knowing customer types can help salespeople to improve their ability to allocate their time and produce the best results, both in the interest of the potential customer and for the business.

Indeed, different facial expressions are related to particular emotions. According to Dalglish and Power (1999), particular facial expressions have corresponding emotions. Six basic emotions have been identified; anger, surprise, disgust, sadness, happiness, and fear (Ekman, 1992). These emotions reflect internal states and intended actions (Dewey, 1894; Ekman, 1992). Azar (2000), however, disagreed on the extent to which facial expressions reflect the internal human state. Shergill et al. (2008) believed that facial expressions may not always reflect a person's true emotions, but they represent possible indicators of the internal state. On this premise it is propagated that facial expressions of customers can be analysed to aid salespeople determine who are real buyers, and who are not.

In the retail market it is generally accepted that salespeople are pivotal roleplayers. As a result of increasing sales costs, a number of communication approaches have been suggested to reduce the cost of selling, including telemarketing, direct mail, and demonstration centres (Shapiro & Wyman, 1981). Sujana, Weitz and Sujana (1988) held, however, that a salesperson's personal contact with a customer is the most effective method of making a sale. As a result, the most effective way of reducing selling costs is to increase a salesperson's productivity by assisting salespeople to work smarter. According to Sujana, Weitz and Sujana (1988), working smart requires knowledge on the categorising of customers and the needs of customers.

Facial expressions has been proposed to classify customers into four groups; browsers, future buyers, potential buyers, and buyers (Shergill, et al., 2008). These scholars believe that the four customer categories can aid sales personnel to improve their time allocation ability to produce the best results, both for the prospective customer, and for the business. Customers can be satisfied through different selling strategies, for example, browsers will be given more time to look around, as salespeople will provide them with space to browse. The business will certainly gain more sales, because the salespeople's effectiveness can be improved through knowledge of the four customer categories.

Although categorising customers into groups by facial expressions can improve salespeople's selling skills, meet customers' needs, increase gross sales and profits, and be useful for making and checking market segmentation and positioning strategies (Sharma & Levy, 1995; Shergill, et al., 2008), there is simply no literature on the empirical examination of the relation between customer types and facial expressions. Most studies on customer categories use traditional demographic variables, such as age, income, education, occupation, family structure, ethnic background, gender, and geographic location. For facial expressions, most research focuses on customers' emotions and psychology, for example, facial movements that are read as expressing emotion originally served direct adaptive functions in specific emotion-related situations (Parkinson, 2005). In this context it is important to determine whether: Customers can be categorised by facial expressions; the four proposed customer categories classified by facial expressions are acceptable; and what the facial expressions are for each customer category. These questions are essential to the development of the new customer categorisation classification.

RESEARCH METHODOLOGY

This study explores a new customer categorisation scheme – classifying customers based on facial expressions. The study examines how salespeople categorise customers according to their facial expressions. In order to conduct this research, a survey was conducted on salespeople who work in electronic stores in Auckland, specifically Bond & Bond, Noel Leeming, and Farmers electronic stores. The survey was conducted through face-to-face interviews, with a structured question format, and completed in those electronics stores.

RESEARCH OBJECTIVES

In the literature review section of this report, a new customer facial expression categorisation scheme is postulated. The purpose of this study is to examine this scheme. In order to clearly and systematically explore the scheme, four research objectives are developed.

The first of these is testing whether facial expressions can be used to classify customers into categories. Shergill et al. (2008) proposed that customers' facial expressions can be read and used to recognise customer types. The proposition is, however, only based on theories and conceptions. However it is important to empirically test whether facial expressions can be used to classify customers. The second research objective is the testing of these four customer categories in the new customer categorisation scheme. Shergill et al. (2008) proposed four customer categories; Browsers, Future Buyers, Potential Buyers, and Buyers. They held that customers can be classified into these four customer categories according to facial expressions. The third objective is to identify what types of facial expressions match each customer category. Although Shergill et al. (2008) developed the new customer categorisation scheme, the researchers did not state which kinds of facial expression are included in each customer category, however, this research is important in the application of the new customer categorisation scheme in the real world. Therefore, it is necessary to identify what types of facial expressions match each customer category. The last objective is to test whether demographic factors (gender, age, ethnic group, educational level, and work experience) can significantly affect the classification of facial expressions. This is essential to store managers and people who conduct training programmes for salespeople, or other relevant tasks. These people can improve their work quality and effectiveness through knowing the effects of demographic factors on the classification of facial expressions.

RATIONALE OF METHODOLOGY AND RESEARCH DESIGN

The subjects of the research are salespeople who work in Bond & Bond, Noel Leeming, and Farmers electronic stores in Auckland. Choosing Bond & Bond, Noel Leeming, and Farmers as the research focus is because they are the most representative electronic stores in Auckland. Electronic stores can avoid some negative factors that may otherwise affect the results, because of the high price and durability of the products. Negative factors, for example, impulse purchases, are often made due to special sales prices, free shipping, and holiday or seasonal promotions (Rook, 1987). There is, however, a drawback in the limited number of subjects. So, improving the response rate is vital in the study. Fortunately, a face-to-face interview method offers a high response rate (Dillon, Madden, & Firtle, 1994).

A questionnaire is a cheap and time saving method for the survey. By using a questionnaire in face-to-face interviews, standardised questions can be asked. Standardised questions make measurements more precise, by asking different subjects. Moreover, using standardised questions allow for convenient and accurate comparison among subjects with different attributes. This assists in determining whether respondents with different backgrounds in areas such as age, gender, or religion, will have different attitudes, or opinion, on the new customer categorisation scheme. For this reason face-to-face interviews combined with a questionnaire is an appropriate method for examining the new customer categorisation scheme.

POPULATION AND SAMPLE

Bond & Bond, Noel Leeming, and Farmers electronics stores are the most typical and representative electronic stores in Auckland. According to the websites of the four electronics stores, there are 11 Bond & Bond, 14 Noel Leeming, and 17 Farmers stores in Auckland. The population for the study are the salespeople working in the three electronics stores in Auckland. By surveying staff members in the three electronics stores, approximate 12 salespeople working in each Bond & Bond and Noel Lemming store, and about 6 in each Farmers electronics store, resulting in a survey population of 402 respondents.

In order to gain reliable results, one third of the population ($402/3=134$ salespeople) was selected as the sample for the survey. Further, there was another condition for selecting the sample, which relates to work experience of the subjects which had to be more than one year. This condition is in order to ensure the quality of the results, because salespeople who have worked for less than one year may not have enough understanding of customers and facial expressions.

There are, however, two problems which reduced the sample size. The first problem was that survey permission could, for various reasons, not be gained from one Bond & Bond store (Glenfield store), one Noel Leeming store (New Lynn store), and two Farmers electronics stores (Pakuranga and West City store). As those stores' salespeople could not participate in the survey, the total number of participants was reduced to 124. Another problem was that, of the 124 responses, 26 responses were eliminated due to excessive missing data in some questions. The 26 responses did not complete, or only completed part of, the question, which is related to the most important objective of the research. As a result 98 usable responses were gained by the survey.

DATA COLLECTION METHODS AND INSTRUMENTS

As mentioned, the data collection method was through face-to-face interviews, with a structured question format. The face-to-face interview method not only increases the response rate, but also improves the quality of the survey. In the research, 150 facial expression pictures are used as instruments to test how salespeople classified those pictures with different facial expressions into customer categories. The 150 facial expression pictures are designed by computer science students who are studying human facial expressions. The picture samples include six basic emotional facial expressions, neutral, and thinking faces.

The final questionnaire comprises of ten questions and is three pages long. The key objective of the questionnaire was to test the new customer categorisation scheme proposed in Shergill et al. (2008). A "yes" or "no" question was used to test whether the salespeople agreed that customers can be classified by their facial expressions. A 5-point Likert-type scale was used to test the customer categories. In addition, the 150 pictures were used to determine the facial expression types for each customer category. The questionnaire also included five questions related to respondents' personal attributes, being work experience, educational level, ethnic group, gender, and age.

ANALYSIS AND RESULTS

All 150 pictures are analysed using similar analysis methods for each demographic factor. The research identifies the number of pictures with Chi-Square p values bigger than the significance level of 0.05, and the number of pictures with Chi-Square p values lower than the significance level of 0.05. Only 23 pictures are shown to be significantly affected in their classification by the demographic factor of gender. Age and ethnic group only significantly affect 11% (7.3%) of the pictures, respectively. Educational level significantly affects only 6 pictures, while work experience affects 28 pictures. Based on this data, it can be concluded that the number of pictures significantly affected by demographic factors (gender, age, ethnic group, educational level, and work experience) is insignificant. In other words, there is an absolute strength in the number of pictures with Chi-Square P values > 0.05 , compared with the number of pictures with Chi-Square p values < 0.005 . For this reason it can be stated that all demographic factors insignificantly affect the classification of facial expression pictures through the use of Crosstabs and Chi-Square testing. As a result, the fourth objective of the research, that of testing whether demographic factors can significantly affect the classification of facial expressions, is achieved. This means that store managers, or people who conducting training programmes or other related tasks for salespeople do not need to be concerned about the effects of demographic factors when training salespeople how to recognise customers' types based on facial expressions.

The Use of Facial Expressions in the Classification of Customers

In this study, the first objective is to empirically examine whether facial expressions can be used to classify customers. The survey results indicate that customers can be classified by facial expressions. The data strongly supports the hypothesis that facial expressions can be used to categorise customers. Of 98 valid respondents, 85.7% agreed that facial expressions can be used to categorise customers, while 13.3% of respondents disagreed. Although no study directly indicates that facial expression can be used to classify customers, some scholars support the hypothesis that facial expressions are related to customer behaviour. For example, Gerton's (2003) study on facial expressions indicates that facial expressions express feelings, intentions, and wishes in the process of communication. This means that customers' feelings, intentions, and wishes can also be recognised by analysing their facial expressions. If customers' feelings, intentions, and wishes can be recognised by salespeople, it will be possible for them to determine customers' needs and the category/type of each customer. It is therefore clear that Gerton's (2003) study supports the result that facial expressions can be used to classify customers.

The findings suggest that salespeople can improve their selling skills by observing customers' facial expressions, because facial expressions can be used to recognise customer categories. Salespeople can distinguish whether customers are buyers, or browsers, by a customer's facial expressions, and then reasonably allocate their time to different types of customers. This can improve the work effectiveness of salespeople and the sales of stores.

The Four Customer Categories

The four customer categories – *Browsers*, *Future Buyers*, *Potential Buyers* and *Buyers* - are agreed with by over 80% of the respondents. This means that the four customer categories are suited to the customer categorisation scheme – using facial expressions to classify customers.

The results reveal that 87% of the respondents acknowledge the characteristics of browsers are presented as; killing their own and salespeople's time, while not being interested in buying, but enjoying wandering through the store. It was agreed by 84% of the respondents that the characteristics of future buyers are; focusing on collecting information about a product/service for future purchase decisions. It was agreed by 88% of respondents that potential buyers have the desire to buy, but need assistance to make purchase decisions. It was agreed by 83% of respondents that buyers purchase products straight away, without assistance. The characteristics of the four customer categories differ from each other, and members in each category have similar characteristics. Two conditions of creating categories are: (1) Members in one category are similar to each other; and (2) members in different categories differ from each other (Homa, et al., 1979). The four customer categories are in accord with the requirements for creating categories. For this reason four customer categories are suitable for the customer categorisation scheme - using facial expressions to classify customers.

According to the finding that each customer category has different characteristics, salespeople can adopt different selling strategies for different customer categories. As browsers are not interested in buying and like killing time, salespeople can leave them unattended so that browsers can have more spare time for browsing. To serving future buyers, salespeople can offer as much product information as possible, as future buyers are looking for information to aid their future purchase decisions. Providing information to future buyers is helpful in reducing the time to make purchase decisions. Due to potential buyers already having some information and having a desire to buy before they come to a store, salespeople can present product information that potential buyers do not know, or confirm the features of the product that the potential buyer wants to buy. In the case of buyers, salespeople can simply provide a good shopping environment, because they are straight buyers and do not need assistance.

Facial Expressions for Each Customer Category

According to the survey results, the customer category *browsers* has four different facial expressions; anger, sadness, fear, and disgust. The finding indicates that customers exhibiting facial expressions of anger, sadness, fear, or disgust are all browsers. In other words, browsers can be recognised on the basis of these four types of facial expression. The facial features of anger are frowning and glowering, with eyebrows pulled down at the centre of the face, wide and glaring eyes, and opened wide mouths showing teeth in a snarl or shout. The most important facial feature of sadness is that mouth corners are downturned. The facial features of fear are jaws dropping open, eyebrows rising, and eyes opened wide and staring. The facial features of disgust are a wrinkled nose, raised upper lip, and frowning eyebrows. Based on the features of these facial expressions, customers with facial expressions of anger, sadness, fear, or disgust can be recognised, and treated, as browsers.

The survey results reveal that the customer category *future buyers* has only one type of facial expression, which is a neutral facial expression. A neutral facial expression means that a person's facial muscles are relaxed (Kang, et al., 2008). According to Kang et al. (2008), people with neutral facial expressions are not emotionally influenced by external factors. Furthermore, it is also indicated that it is hard for other people to gain information from a neutral face. The survey results find, however, that the neutral facial expression pictures are identified as future buyers. This finding indicates that customers with neutral facial expressions should be treated as future buyers.

Another finding regarding the relation between facial expressions and customer categories is that the customer category *potential buyers* is related to a facial expression of surprise. The facial features of surprise are; curved and high eyebrows, stretched skin below the eyebrows, horizontal wrinkles across the forehead, open eyelids, and a dropped jaw. This means that potential buyers can be recognised based on the facial features of surprise.

The last finding regarding facial expressions and customer categories is that the customer category *buyers* has the facial expression of happiness. The finding implies that buyers have happy facial expressions and can be recognised based on the facial features of happiness. The most important facial feature of happiness is that the corners of the mouth turn up.

The research results reveal that the four customer categories have different facial expressions. Browsers have facial expressions of anger, sadness, fear, and disgust, and future buyers have neutral facial expressions, while potential buyers have the facial expression of surprise, and buyers have the facial expression of happiness. These findings indicate that customers can be categorised into the four customer categories based on the facial features of various facial expressions. Of course, after the customers are classified into these categories, different selling strategies can be directed to different types of customers.

The Effects of Demographic Factors on the Classification of the Facial Expression Pictures

The research results reveal that demographic factors; gender, age, ethnic group, educational level, and work experience; have insignificant effects on the classification of facial expression pictures. This means that this classification is not related to demographic factors when salespeople judge which category a customer fits into. Indirectly, the finding offers some suggestions for salespeople training programmes. Salespeople training programmes do not need to distinguish between salespeople of differing genders, age, ethnic groups, educational levels, or work experience, because these factors do not affect salespeople in their classification of customers. The finding does imply, however, that salespeople training programmes should emphasize training

salespeople in how to recognise the six basic emotional facial expressions, based on the features of those facial expressions. This can improve the work effectiveness of salespeople.

CONCLUSIONS AND IMPLICATIONS

This study empirically examined the new customer categorisation scheme by using facial expressions to classify customers. The research results confirm that facial expressions can be used to classify customers into categories. In addition, the research proves that the four customer categories (Browsers, Future Buyers, Potential Buyers, Buyers) are suitable for use in the customer categorisation scheme. The study also indicated that each customer category exhibits different facial expressions. Browsers have facial expressions of anger, sadness, fear, and disgust. Future buyers have neutral facial expressions. Potential buyers exhibit facial expressions of surprise. Buyers have facial expressions of happiness. The study also reveals that demographic factors do not have significant effects on the classification of facial expression pictures. For this reason store managers, or salespeople training programme leaders, do not need to differentiate due to salespeople's gender, age, educational level, ethnic group, or work experience in terms of improving their selling skills.

The implication of these findings is that salespeople can improve their selling skills by learning the relation between facial expressions and customer categories. By training salespeople how to read customers' facial expressions and using proper selling strategies for relevant types of customers it is possible to improve the sales of the retail business. As the shopping behaviours of the four different types of customer are different, it is important to apply an appropriate sales strategy to each category. According to the suggestions of Shergill et al. (2008), salespeople should leave browsers unattended, because they are not interested in buying or seeking information of products/services, but are simply browsing. So, leaving them unattended is the proper sales strategy for salespeople. By doing so, salespeople have more time to target customers who are interested in buying, or need some product/service information. For example, salespeople can initially talk to future buyers to provide product information. In addition, salespeople should try to confirm and emphasize the advantages of products/services that potential customers want. This strategy is more likely to accelerate the purchase decision of potential customers. By accurately allocating the time of salespeople, the business, and the salespeople's sales skills, can be improved.

The findings of the study are also closely related to the application of some computer technologies used in analysing customer faces. Shergill et al. (2008) proposed using computer technology to analyse a customer's face and then determine which customer category the customer belongs to. The study supports the hypothesis of Shergill et al. (2008) through finding that the four customer categories each exhibit particular facial expressions. Based on this finding and some relevant computer technologies, it is possible to recognise customer types. For example, a customer with a facial expression of surprise would be recognised as a potential buyer by such a computer system. For this reason the findings of the study can be used to assist other researchers in building on, and completing, their studies on the use of computer technology to analyse customers' facial expressions and types.

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INTERNAL MARKETING ELEMENTS' INFLUENCE ON THE BRAND AWARENESS OF SELECTED CAR RENTAL COMPANIES IN SOUTH AFRICA

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ABSTRACT

Employees of car rental companies are their most important asset and special attention is required to ensure loyalty and commitment from employees to deliver service excellence. The brand's successful positioning depends on the role employees' play in producing and delivering the service (Papasolomou & Vrontis, 2006:39). South African car rental companies require guidance to improve their respective brand awareness, enabling them to expand their customer base whilst retaining existing customers. This study aims to identify the influence of eleven internal marketing mix elements, i.e. product, price, promotion, place, people, processes, physical evidence, positioning, personal relationships, packaging and performance on brand awareness of South African car rental companies.

INTRODUCTION

Organisations across all industries recognise that services are becoming an important factor in all their business dealings to obtain a competitive advantage (Strydom, 2005:114). According to Palmer (2005:2), every industry is a service industry and the only aspect that separates industries is the size of their service component. Innovative organisations offering unique services to customers are now succeeding in markets where established organisations have failed (Lovelock & Wirtz, 2004:4). Services marketing management is about servicing and caring about people (Kasper, van Helsdingen & Gabbott, 2006:9). People encompass individuals, households, employees and organisations. In general, services deal with intangibles, in other words, things that cannot be hold, touched nor be seen before they are utilised (Grönroos, 2000:7). Services refer to deeds, processes and experiences (Kasper et al., 2006:9; Zeithaml, Bitner & Gremler, 2006:4).

Internal marketing views the employee as an internal customer, jobs as internal products and holds the view that all employees in an organisation serve both a customer and a supplier even in the event where one or both of these are internal colleagues (Zeithaml & Bitner, 2003:319). The goal of internal marketing is to establish, implement and manage a customer-focused service culture, strategy and relationships, which should result in higher levels of service quality (Varey & Lewis, 2000:200). In order to achieve the goal of internal marketing service organisations need to recognise that marketing strategies should not only be aimed at external customers, but should also be implemented internally and achieve better internal communication. Therefore the internal marketing mix have to be of central importance in services organisations as each element represents cues that customers rely on in judging quality and overall awareness of the brand (Mudie & Pirrie, 2006:6). The internal marketing mix elements that will be used in this study include product, price, promotion, place, people, processes, physical evidence, positioning, personal relationships, packaging and performance.

Brand awareness refers to the strength of a brand's presence in the customer's mind. Awareness is measured according to the different ways in which customers remember a brand, ranging from recognition (exposure to the brand) to recall (what can be recalled about the brand) to first in the mind (the brand appearing first in the mind) and finally to dominant (the only brand recalled) (Aaker, 1996:10). Brand awareness is created by increasing the

familiarity of the brand through repeated exposure and strong associations with the relevant cues enabling the customer to recall the brand effectively (Keller, 2003:70).

In order to enhance the brand awareness of a service organisation the organisation has to adapt its marketing activities to mix and match the internal marketing mix elements that will reinforce the brand awareness (Kotler & Keller, 2009:288). Therefore, car rental companies need to implement internal marketing programmes that include at least some of the internal marketing mix elements to ensure employees deliver service excellence to customers thereby improving the awareness of their brand amongst external customers. Customers who are aware of the brand of car rental companies and who receive excellent services should become committed to the company and should remain a long term and loyal customer of the specific car rental company. However, it is important for car rental companies to understand the 11P's of the internal marketing mix and have to know which ones have a greater influence on the brand awareness of the company.

The homogeneity and heightened competition in the car rental industry are forcing car rental companies to consider the connection between internal marketing and brand awareness to achieve competitive differentiation. Due to increased globalisation most car rental companies in South Africa have to compete on a local and international level. Currently in South Africa there are a number of car rental companies, of which seven are most recognised due to their location at airports in South Africa. These companies include Avis, Budget, Europcar, Hertz, National, Tempest Sixt and Thrifty.

Avis, Budget and Europcar are the three largest car rental companies in South Africa and have indicated their willingness to participate in this study. Due to the number of employees, the number of branches and the large sizes of their fleets, Avis, Budget and Europcar were selected as they could be seen as a representative sample of the total population of car rental companies.

It is therefore important for car rental companies to determine if internal marketing exercised has an influence on customers' associations with the brand of the organisation. Car rental companies should realise that there is a need to instil a customer-focused service culture, which is a prerequisite for delivering consistently high quality services and for building successful service brands. Therefore they need to embark on a process of strengthening their brands as a source of sustainable competitive advantage by implementing an internal marketing programme to compete with first world countries (Papazolomou & Vrontis, 2006:39). Although most South African car rental companies' brands are well known, formal research is required as it is not evident that internal marketing implementation does have an influence on customers' perception of the brand awareness of car rental companies in South Africa.

STATEMENT OF THE PROBLEM

Background to the problem statement

The ensuing sections contain information obtained to gain an in-depth understanding of the research issues as defined within the problem statement.

Theoretical paradigm: The creation of a brand implies communicating a certain brand image in such a way that all the target groups of an organisation link its brand in their minds, awareness, with a set of associations (Del Rio *et al*, 2001:410; Low & Lamb, 2000:350). Brand awareness consists of brand recognition and brand recall performance. Brand recognition relates to customers' ability to confirm prior exposure to the brand when given the brand as a cue. In other words, customers are able to distinguish the brand as having been previously seen or heard. Brand recall relates to customers' ability to retrieve the brand from memory when given the product category, the needs fulfilled by the category or a purchase or usage situation as a cue. In other words, customers are able to correctly generate the brand from memory when receiving a relevant cue (Keller, 2003a:67). Brand awareness is critical for services organisations, as customers have to actively seek the brand and be able to recall it from memory when appropriate.

Together with the eleven internal marketing mix elements, brand awareness forms the theoretical paradigm on which this study is based.

Research constructs: Research constructs are described as unobservable abstract concepts that are measured indirectly by a group of related variables. Variables are described as observable measurable elements of an object and are measured directly (Hair, Bush & Ortinau, 2009:233). In practice, the term variable is used as a synonym for constructs or the property being studied and in this context, a variable is a symbol to which numerals or values are assigned (Cooper and Schindler, 2001:44). Therefore, the variables that will be measured in this study are the eleven internal marketing elements, product, price, promotion, place, people, processes, physical evidence, positioning, personal relationships, packaging and performance. These elements are the independent variables or constructs, since they predict or explain the outcome variable of interest (Hair *et al.*, 2009:234).

Brand awareness can be measured as recognition of the brand and recall of the brand (Aaker, 1996:10; Keller, 1998:45). The brand recognition and brand recall are the dependent variables or constructs as they are the variables the researcher is seeking to explain (Hair *et al.*, 2009:234).

Relationship between variables : As indicated in the formulated hypotheses, this study aims to indicate that there is a relationship between the variables that are being tested. The relationship can either be positive or negative. A positive relationship between two variables indicates that the two variables increase or decrease together, comparing to a negative relationship that suggests that as one variable increases, the other one decreases, or vice versa (Hair *et al.* , 2009:234).

Should there be no relationship between the eleven internal marketing elements and the brand awareness of selected car rental companies in South Africa, the null hypothesis will be relevant. If the null hypothesis is accepted, it concludes that the variables are not related in a meaningful way (Hair *et al.*, 2009:235). If, on the other hand, the null hypothesis is rejected, the alternative hypothesis indicates that the two variables are related in some way that may prove useful for the car rental companies.

Problem statement: Despite a strong interest in the subject amongst marketing researchers, little research has been conducted related to brand awareness in service brands (Del Rio *et al.*, 2001:410; O’Cass & Grace, 2003:453). Although car rental companies have internal programmes, such as loyalty and other incentive programmes to motivate employees, the success of these programmes have not been researched nor linked to the internal marketing elements applicable to this study (Avis, 2009). Furthermore, the researcher could not find any direct studies related to the influence of internal marketing elements on brand awareness in the car rental industry in South Africa. This is relevant because if all elements do not contribute positively to the overall brand awareness of car rental companies in South Africa, it could receive reduced attention, which could damage the overall image of the brand of the car rental company. Additionally if certain activities prove ineffectively they could be altered and improved, thereby creating more competitiveness for car rental companies.

The problem in this study is that the importance of brand awareness in a services industry, specifically the car rental industry, should be emphasised, therefore this study aims to determine the influence of the internal product, price, promotion, place, people, processes, physical evidence, positioning, personal relationships, packaging and performance on brand awareness of car rental companies in South Africa, as perceived by external customers.

RESEARCH OBJECTIVES

The following objectives will clearly define the objectives the study aims to determine:

Primary objective

The primary research objective of this study is to determine the perceived influence of the different elements of internal marketing on the brand awareness of selected car rental companies in South Africa.

Secondary objectives

- To examine the theory relating to the P's of internal marketing and brand awareness.
- To determine whether there is a difference between the perceived influences of the different elements of internal marketing on brand awareness of selected car rental companies in South Africa.
- To determine which elements of internal marketing have the largest influence on brand awareness of selected car rental companies in South Africa.
- To make recommendations to car rental companies in improving their internal marketing efforts to enhance brand awareness of selected car rental companies in South Africa.

HYPOTHESES

As indicated in the aforementioned sections, it is important for the car rental industry's growth and ultimate success in terms of service delivery to know what the influence of internal marketing efforts is on their customers' awareness of the brand. The influence of the eleven internal marketing mix elements on the brand awareness derived from the research objectives has therefore been formulated in hypotheses that can be tested among customers. In figure 1 the hypotheses are depicted.

Figure 1 displays the organisation which imposes its values through internal marketing on employees with the external customer in mind to achieve its objectives (Mudie & Pirrie, 2006:14). The internal marketing mix elements are independent variables, since they are not dependent on one another to exist in the organisation. The brand awareness is the dependent variable of the study as the research aims to prove the influence of the independent variables on the brand awareness. The brand awareness dimensions that will be tested are brand recognition and brand recall.

In classical tests of significance, two kinds of hypotheses are used. The null hypothesis is a statement that no difference exists between the parameter and the statistic being compared to it. The alternative hypothesis holds that there is a difference (Cooper & Schindler, 2001:487). These hypotheses are depicted in the figure on the following page.

RESEARCH METHODOLOGY

Research design and research format

According to Mouton (2001:37), the research method that is partly derived from the methodological paradigm (qualitative or quantitative) fits the research objectives. In quantitative research, the methods are well planned, structured and formal because the findings play an important role in decision-making (Boyce, 2002:37). Quantitative research makes use of structured close-ended questions that have predetermined response possibilities in questionnaires or surveys and are distributed to a vast number of respondents (Hair *et al*, 2006:171). In this study a quantitative process will be used to seek data that can be expressed in numbers and statistically analysed.

The research format of the study is described as descriptive research. As recommended by Solomon, Marshall and Stuart (2006:113), this study will include a descriptive survey design to gather the necessary data from a large sample size. As the objectives of this study are to describe a current situation, a cross-sectional format is appropriate.

Population and sample

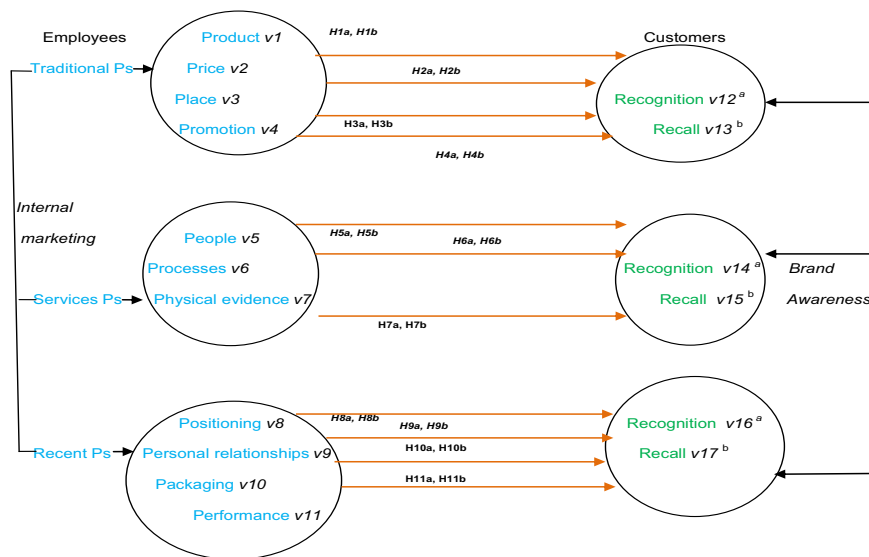
The population for this study will include customers of Avis, Budget Car Rental and Europcar, as these three are the largest and world leading car rental companies in South Africa. All three companies have more than 75

branches and fleets in excess of 8500, compared to the other car rental companies with less than 50 branches and fleets smaller than 6000. Since Avis, Budget and Europcar have a market share of more than 80% it is believed that they will be a fair representation of the car rental industry in South Africa.

Probability sampling will be used for selecting the sample frame. Probability samples are distinguished by the fact that each sampling unit has a known, non-zero chance of being included in the sample (Hair *et al.*, 2006:330). The sample units in the sample frame that will be used in the study include customers who rented cars during a period of three months from October to December 2009 from the Avis, Budget and Europcar groups stationed at OR Tambo, Cape Town, Durban, Bloemfontein, Port Elizabeth, East London, George, Nelspruit and Lanseria airports. There will be 4000 clients targeted within this sample, selected by the management of the three car rental groups.

The customers of car rental companies will aid in measuring the perceived influence of internal marketing elements on the brand awareness of the selected car rental groups.

Schematic presentation of hypotheses



Data collection instruments, sources and procedures

The data collection of this study will be conducted by means of a survey. A questionnaire will be designed for the sample frame. The questionnaire will include a demographic section to classify respondents, being customers. In the second section of the questionnaire the eleven internal marketing mix elements will be tested based on information from the literature. The third section of the questionnaire will focus on brand awareness, namely recognition of the brand and brand recall as described in the theory of the relevant chapter. A five point Likert scale, ranging from 'strongly disagree' to 'strongly agree', will be used for all questions within the questionnaire. The Likert scale is a highly used rating scale that requires respondents to indicate a degree of agreement or disagreement with each of a series of statements about the objects (Cooper & Schindler, 2001:234).

The survey, comprising of an online questionnaire will be administered through email and upon completion will be sent directly to the Statistical Consultation Service of the University of Johannesburg. A pre-test will be conducted to detect possible weaknesses in the questionnaire. An important purpose of the pre-test is to discover the respondents' reactions to questions and it also helps to discover repetitiveness or redundancy (Cooper & Schindler, 2001:236).

Data analysis

Statistical procedures to test the research hypotheses include descriptive statistics, factor analyses, analyses of variance and measures of association. Internal marketing and brand awareness involve numerous factors. Factor analysis will be used to compare and find correlations between these factors.

The statistical method for testing the null hypothesis that the means of several populations are equal is analysis of variance (ANOVA) (Cooper & Schindler, 2001:509). ANOVA will be used to determine if internal marketing and brand awareness are related. The pre-test of the questionnaire will be conducted amongst ten experts in the industry to ensure reliable data. Content validity will be done to ensure the content of the questionnaire is valid. Analyses will be conducted by the Statistical Consultation Service of the University of Johannesburg.

CONTRIBUTION OF THE STUDY

The eleven internal marketing mix elements are still a new concept to many South Africans. No previous studies could be found that have been conducted on the influence of the eleven internal marketing mix elements on brand awareness of car rental companies in South Africa.

This study aims to contribute to the body of knowledge in three ways. Firstly, it describes the complexity of the car rental industry in South Africa. This is followed by a description of the current understanding and debate amongst researchers of the relevance of the eleven marketing mix elements, specifically their influence on brand awareness of an organisation. Thirdly, the study aims to provide guidelines to car rental companies in South Africa on how to improve internal marketing programmes which will enable them to improve their brand awareness. Brand awareness is important to any organisation, as a good and well recognised brand will lead to higher profitability of the organisation.

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COMBINING EFFICIENCY WITH ROA: INDICATOR OF FUTURE RELATIVE PERFORMANCE – SOUTH AFRICAN BANKING GROUPS

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ABSTRACT

Bank financial performance and relative future financial performance are important issues to stakeholders like management, shareholders, investment analysts and portfolio managers. This paper provides evidence that bank financial performance expressed as return on assets (ROA) figures that are adjusted according to relative income and expenditure efficiency provide fundamental measures of performance that have a causal link with future profits and can be utilised in estimating future financial performance. The methodology applied in this research consists of empirically investigating the annual changes in the ROAs of the nine listed South African Banking Groups over the period 2000 to 2008. The study consists of a two stage process. Data envelopment analysis (DEA) is conducted and resultant DEA scores are combined with the calculated ROAs of banks to provide efficiency adjusted ROA. The findings of this research paper shows that combining the CRS efficiency of bank groups with ROA provides a more reliable measure of future financial performance than just conventional ROA figures and efficiency figures.

INTRODUCTION

ROA assesses the profitability performance of total assets, and could be treated as measure of bank financial performance (Tarawneh 2006). The ROA of some South African bank groups have fluctuated quite dramatically over the period 2000 to 2008. Major bank groups like Nedcor Group Limited had a 4.96% ROA before taxation in 2000 with a drop to a negative return of 0.238% in 2003, and thereafter recovering to 1.91% in 2007 (Bureau van Dijk Electronic Publishing 2010). Other bank groups like African Bank Limited had a 21.38% ROA before taxation in 2000, with a drop to 12.50% in 2002, and an increase to 23.15% in 2006. During the period 2000 to 2007 the positive and negative fluctuation in the ROA of the bank groups did not occur equivalently simultaneous, thus indicating that it can be ascribed to individual bank efficiency and not macro-environmental factors that affected the banking industry as a whole. This is proved by the fact that in each of the years from 2000 to 2007, the ROA of some bank groups showed increases in ROA whilst others showed slumps. During this same period of time (2000 to 2007) the ROE of banks fluctuated much more due to the multiplication effect of the financial leverage factor resulting from an average equity to total asset ratio of approximately 6% for the major banking groups like Standard Bank Limited, Firststrand Limited, Absa Group Limited, Nedcor Group Limited and Investec Limited (Bureau van Dijk Electronic Publishing 2010). In the case of Nedcor Group Limited this resulted in a ROE of 44.84% in 2000 deteriorating to a negative ROE of 4.15% in 2003 and progressively increasing back to 24.72% in 2007.

The only major macro-environmental factor that affected the total industry since 2000 was the Global Financial Crises that started in 2007. The impact of this detrimental event led to a substantial average decline of 20.26% in the ROAs of all bank groups, but not to negative ROAs (Bureau van Dijk Electronic Publishing 2010). Since some bank groups had negative ROA figures in previous years but all bank groups could avoid negative figures amidst the global financial crises may be an indicator that the efficiency of banks improved compared to previous years.

The objective of this paper is to provide evidence that ROA figures of banks that are adjusted according to relative income and expenditure efficiency provide fundamental measures of performance that have a causal link with future profits and can be utilised in estimating future financial performance.

DETERMINING FINANCIAL PERFORMANCE – OVERVIEW OF RESEARCH CONDUCTED

The ROA of a bank can be regarded as a measure of financial performance as indicated by Tarawneh (2006). However, Arnold (2005) states that figures about the return on capital employed that are derived from a company's accounts are virtually useless within the context of corporate financial management. Facts on which he bases his perspective are true in terms of generalisation, but in the banking industry the cash flow timing of accounting figures and relevance of asset figures in the ratio differ from companies in other industries due to distinct operational dissimilarity and regulatory accounting requirements set by central banks. In this regard Beccalli, Casu and Girardone (2006) point out that the literature on accounting information and stock returns typically excludes banking institutions due to their high leverage and other distinguishing characteristics of the industry (e.g. regulations). Furthermore, researchers like Ho and Zhu (2004) acknowledged that ROA is regarded as the bottom line result that shows the combined effects of income, expense and asset management on operating results of banks.

Gilbert and Wheelock (2007), Mostafa (2007), and Christian, Moffitt and Suberly (2008) also indicated that in measuring the profitability of a bank, bank regulators and analysts use ROA and ROE to assess industry performance and forecast trends in market structure as inputs in statistical models to predict bank failures and mergers and for a variety of other purposes where a measure of profitability is desired.

DuPont analysis makes a simultaneous analysis of efficiency and profitability possible, and it shows how they interact to determine ROA (Dehning and Stratopoulos 2002). This fundamental method used for assessing profitability was adopted by David Cole in 1972 (Koch and MacDonald 2006:67). This system is properly discussed in the bank management literature of authors like Hempel and Simonson (1999), Fraser, Gup and Kolari (2001), Rose (2002), Rahman, Tan, Hew and Tan (2004), Rose and Hudgins (2005) and Gup, Avram, Beal, Lambert and Kolari (2007).

Researchers applied DEA to compare the efficiency and performance of banks with a combination of variables that consist of financial figures that are ROA elements combined with other non-direct financial figures as indicated in table 1. Non-direct financial figures are all cost or income related, but cannot be regarded as equivalent to accounting figures used in DuPont analysis. It is evident that these researchers supplement accounting based financial information with other company information.

Table 1: Combination of financial and non-direct financial information variables used in DEA to compare the efficiency of banks

Researchers	DEA financial variable inputs	DEA financial variable outputs
Ho (2001)	Assets Interest expenses Employees Fixed assets	Interest income Non-interest income
Mukharjee, Nath and Pal (2002)	Net worth Borrowings Operating expenses Employees Branches	Deposits Net profit Advances Noninterest income Interest income Sales Deposits
Ho and Zhu (2004)	Capital stocks	Sales

	Assets Branches Employees	Deposits
Sakar (2006)	Branches Employees per branch Assets, Loans Deposits	ROA ROE Interest income/assets Interest income/operating income Noninterest income/assets
Wu, Jang and Liang (2006)	Employees Expenses	Deposits Revenues Loans
Howland and Rose (2006)	Non-sales full time employees Sales full time employees Size City employment rate	Loans Deposits Average number of products/customer Customer loyalty

Other researchers like Kao and Liu (2004), Cronje (2007), Mostafa (2007), Muliamal et.al (2008), Ioannidis, Molyneux and Pasiouras (2008) and Thamron (2009) used different components of historical financial information that make up ROA to compare the relevant efficiency of banks within the context that it is acknowledged by researchers like Dehning and Stratopolous (2002) that DuPont analysis enables efficiency analysis. They applied Data Envelopment Analysis (DEA) based on financial ratio figures constituting different elements of ROA by decomposing such financial performance indicators to their efficiency and effectiveness equivalents (refer to table 2).

Table 2: Financial information variables used in DEA to compare the efficiency of banks

Researchers	DEA financial variable inputs	DEA financial variable outputs
Kao and Liu (2004)	Total deposits Interest expense Non-interest expense	Total loans Interest income Non-interest income
Mostafa (2007)	Capital (equity) Assets Profits	ROA ROE
Muliamal et.al (2008)	Total employee expenses Total non-employee expenses Provision for interest earning losses	Net interest income Net trading income Net off-balance sheet income
Ioannidis, Molyneux and Pasiouras (2008)	Cost of borrowed funds Cost of non-financial inputs	Loans Other earning assets Noninterest income
Cronje (2007) and Thamron (2009)	Interest income Interest expense Other income Other expense Bad debt write offs	Total assets

Kirkwood and Nahm(2006) as well as Ioannidis, Molyneux and Pasiouras (2008) indicate that they have examined both cost and income efficiency in the application of DEA to compare the performance of banks. This can be described as an alignment with the principles of the DuPont analysis although Kirkwood and Nahm (2006) used financial figures that are ROA elements combined with other non-direct financial figures. Ioannidis, Molyneux and Pasiouras (2008) also referred to Maudos, Pastor, Perez and Quesada (2002) who argue it provides a more important source of information than the partial view offered by analyzing cost efficiency.

Thamron (2009) used DEA to calculate the efficiency scores of banks based on the research model of Cronje (2007) and combined these scores with ROA. He states that the combination of ROA and DEA scores provide a good profitability measure that incorporates the efficiency of banks in attaining their profits and can be referred to as the ROA efficiency of banks. This statement is also confirmed by the opinion of Murthy, Nandakumar and Wague (2008) that efficiency contributes to improved profitability but banks are more interested in ensuring continued profitability of their banks than in achieving efficiency.

METHODOLOGY APPLIED IN THIS STUDY

The methodology applied in this research consists of empirically investigating the annual changes in the ROAs of the nine listed South African Bank Groups over the period 2000 to 2008 by using the listed company financial information database of Bureau van Dijk Electronic Publishing (2010) available on their Osiris system.

The study consists of a two stage process. DEA is conducted and resultant DEA scores are combined with the calculated ROAs of banks to provide efficiency adjusted ROA.

Stage 1 – DEA analysis

DEA is used to compute a comparative ratio of outputs to inputs for each bank group to obtain their relative efficiency scores. The DEAP 2.1 software of Coelli (1996) is used for the DEA analysis. The efficiency score is usually expressed as either a number between zero and one or 0% and 100%. A decision making unit (DMU) with a score less than one is deemed inefficient relative to other DMUs (Avkiran, 1999).

The following formulation, also known as the input-oriented Charnes, Cooper and Rhodes (CCR) Model, is applied in this study to determine the relative cost efficiency of the bank groups:

$$\begin{aligned}
 (1) \text{ Minimize } & H_A - \varepsilon \left(\sum_{r=1}^R s_r^+ + \sum_{i=1}^I s_i^- \right) \\
 \text{subject to : } & H_A x_{iA} - \sum_{j=1}^n \lambda_{Aj} y_{ij} - s_i^- = 0, \text{ for all } i = 1, 2, \dots, I, \\
 & \sum_{j=1}^n \lambda_{Aj} y_{rj} - s_r^+ = y_{rA}, \text{ for all } r = 1, 2, \dots, R, \\
 & \lambda_{Aj}, s_r^+, s_i^- \geq 0, \text{ for all } j, r, i.
 \end{aligned}$$

where: H_A = the minimum proportion such that for each input, the weighted combination of input of all bank groups does not exceed the proportion H_A of the input of bank group A. At the same time the weighted combination of output of all bank groups is at least as great as that of bank group A.
 s_r^+ = slack variables corresponding to the outputs.
 s_i^- = slack variables corresponding to the inputs.
 R = the number of outputs.
 I = the number of inputs.
 λ_{Aj} = the optimal weights calculated by the linear programme for the outputs of bank group A.

The formulation for the output-oriented CCR model that is applied in this study to determine the relative income efficiency of the banking groups is:

$$(2) \text{ Maximise } -H_A + \varepsilon \left(\sum_{r=1}^R s_r^+ + \sum_{i=1}^I s_i^- \right)$$

In the application of DEA the inputs and outputs that apply to the type of efficiency that is being assessed should be determined (Sherman and Rupert, 2006). Manandhar and Tang, (2002) states that the efficiency that can be determined by applying DEA is not confined to a traditional sense of operating efficiency;

the inputs and outputs used will determine the relative evaluation of performance in a specific performance dimension. Since the objective of the research is to determine the efficiency of the ROA of bank groups and the principles of DuPont analysis is applied in this regard, the following financial statement figures are regarded as relevant elements of ROA: Interest income, non-interest income, other income, interest expenses, non-interest expenses, loan losses and other expenses (Cronje, 2007). These figures represent the assemblage of the net profit before tax figure (numerator) in the ROA ratio. The other financial statement figure that is relevant and also forms part of the ROA ratio is total assets (denominator).

Another aspect that is relevant to the inputs and outputs that have to be selected for efficiency analysis is that the measured DEA efficiency in small samples is sensitive to the difference between the number of DMUs and the sum of inputs and outputs used (Button and Weyman-Jones, 1992). In a typical analysis each ratio may be associated with a different DMU and the number of such ratios will be the product of the number of inputs and the number of outputs. In general if there are t outputs and m inputs we would expect the order of tm efficient DMUs, suggesting that the number of units in the set should be substantially greater than tm , in order for there to be suitable discrimination between the DMUs. Raab and Lichty (2002) suggest a general rule of thumb – the minimum number of DMUs should be greater than three times the number of inputs plus outputs. Based on the aforementioned criteria regarding performance dimension and the limitations relating to the number of inputs and outputs that are used, two DEA input and output datasets were set up for this research. This created a profit efficiency dataset consisting of one input, namely average total assets and three outputs - interest income, non-interest income and other income. For the cost efficiency dataset four inputs were considered – interest expense, non-interest expense, loan losses and other expenses with average total assets as output. The general rule of thumb criteria of Raab and Lichty (2002) in terms of the number of inputs cannot be attained completely but the non-interest expenses and loan losses are combined in the cost efficiency dataset (because loan losses are generally reported as part of non-interest expenses in financial statements).

DEA is conducted with both constant returns to scale (CRS) and variable returns to scale (VRS). This procedure makes it possible to decompose technical efficiency (TE) into pure technical efficiency (PTE) and scale efficiency (SE). The CRS efficiency score represents technical efficiency that measures the inefficiencies due to the input/output configuration as well as the size of operations while the VRS efficiency score only represents pure technical efficiency without scale efficiency. Coelli (1996) indicates that the scale inefficiency of a DMU can be calculated from the difference between the VRS TE score and the CRS TE score by applying the following calculation:

$$(3) \text{ Scale – efficiency} = \frac{\theta_{VRS}^*}{\theta_{CRS}^*}$$

Scale efficiency is also calculated to analyse the combination of it with ROA.

Stage 2 – Comparison of combining efficiency with ROA and conventional ROA as future performance indicators

The ROA efficiency combinations that are evaluated in terms of their causal link with future profits and ability to serve as profound indicators of financial performance (ROA) in the next financial period represent configurations of the CRS, VRS and Scale efficiency scores with ROAs as well as the combination of DEA scores according to the methodology of Thamron (2009) to create single CRS, VRS and scale efficiency ROA figures. Subsets of all independent variable combinations are analysed to find the combination that maximises the adjusted R^2 .

All ROA efficiency combinations are evaluated by applying linear regression analysis with Statgraphics Centurion XVI software. The following model applies:

$$(4) \gamma_t = \chi_{t-1} + \beta$$

Where: Y_t = the ROA in year t .
 X_t = a vector of independent variables.

All CRS, VRS and Scale efficiency variables used in the analysis are calculated as follows:

$$(5) \text{ DEA score} = \frac{\text{Cost efficiency score} + \text{income efficiency score}}{2}$$

CRS, VRS and scale efficiency ROA figures are calculated as follows:

$$(6) \text{ Efficiency adjusted ROA} = \text{ROA} \left(\frac{(\text{DEA ce score} \times \text{ROA}) + (\text{DEA ie score} \times \text{ROA})}{2} \right)$$

Where: ce score = cost efficiency score.
ie score = income efficiency score.

In the case of negative ROAs the following adjustment is applied to retain difference equivalence compared to positive ROAs for all CRS, VRS and scale efficiency ROAs:

$$(7) \text{ Efficiency adjusted negative ROA} = \text{ROA} + \left(\text{ROA} - \left(\frac{(\text{DEA ce score} \times \text{ROA}) + (\text{DEA ie score} \times \text{ROA})}{2} \right) \right)$$

EMPIRICAL FINDINGS

The mean DEA income efficiency scores of bank groups for the period 2000 to 2008 are contained in table 3. The mean CRS scores that measure the gross efficiency of banks comprise technical efficiency and scale efficiency. Technical efficiency describes the ability to convert inputs to outputs. Scale efficiency recognises that scale of efficiency cannot be attained at all levels of operation and that there is only one most productive scale size where scale efficiency is maximum at 100% (Ramanathan, 2003). Within this context the CRS (technical) efficiency of the bank groups are in the total period of time (2000 to 2008) much less than the VRS (pure technical) efficiency. Equality only holds when the scale efficiency is unity or the bank operates at the most productive scale size. The resultant mean scale efficiency scores (ratio of the CRS efficiency to the VRS efficiency) are indicative of the fact that scale inefficiency contributes extensively to bank group profit inefficiency in general.

Table 3: Mean DEA income efficiency scores of South African bank groups for the period 2000 to 2008

Year	Mean CRS score	Mean VRS score	Mean Scale score
2000	0.483	0.877	0.532
2001	0.506	0.929	0.528
2002	0.536	0.893	0.563
2003	0.611	0.882	0.691
2004	0.553	1.000	0.533
2005	0.634	0.952	0.653
2006	0.518	0.868	0.611
2007	0.585	0.919	0.659
2008	0.514	0.905	0.582

The mean CRS cost efficiency scores for both DEA datasets are, for all the 2000 to 2008 periods, high compared to the mean CRS income efficiency scores of bank groups (refer to table 4). The mean VRS cost efficiency scores are slightly higher than the mean VRS income efficiency scores. This indicates that banks experience less relative cost inefficiency. The mean CRS cost efficiency score is slightly lower than the mean VRS cost efficiency score and therefore implicates scale inefficiency although by far not as significant as the scale inefficiency of income management.

Table 4: Mean DEA cost efficiency scores of South African bank groups for the period 2000 to 2008

Year	Mean CRS score	Mean VRS score	Mean Scale score
2000	0.898	0.945	0.952
2001	0.772	0.870	0.896
2002	0.868	0.957	0.907
2003	0.891	0.965	0.926
2004	0.884	0.942	0.941
2005	0.893	1.000	0.893
2006	0.851	1.000	0.851
2007	0.850	1.000	0.850
2008	0.832	1.000	0.832

The means of original ROAs of bank groups show that 2000 was the year when the average financial performance was the best, followed by a plunge in 2001 (refer to table 5). The average financial performance thereafter improved steadily to 2006 with the effect of the global financial crises showing a start-off in 2007 and intensifying in 2008. The means of the CRS efficiency adjusted ROAs differ significantly from original ROAs due to the low CRS income and cost efficiency scores contained in tables 3 and 4.

Table 5: Means of original ROAs and efficiency adjusted ROAs of South African bank groups for the period 2000 to 2008

Year	Original ROA %	CRS efficiency adjusted ROA %	VRS efficiency adjusted ROA %	Scale efficiency adjusted ROA %
2000	6.934	5.745	6.456	5.796
2001	3.294	1.332	2.291	2.072
2002	4.611	4.111	4.553	4.150
2003	4.028	3.672	3.992	3.683
2004	4.515	3.659	4.124	3.969
2005	6.355	5.244	6.307	5.263
2006	6.856	5.409	6.707	5.522
2007	6.315	4.882	6.174	5.014
2008	4.882	3.428	4.704	3.574

Linear regression analysis results for all the ROA adjustment combinations are reflected in table 6.

The combination of CRS, the percentage change thereof compared to the CRS score in the previous year, ROA, and the percentage change of it from the previous year provides the equation that shows the best prediction relationship with the relative ROA that can be expected from banks in the next financial year. Although there are other ROA efficiency combinations with higher R^2 and adjusted R^2 means, this is the only one complying for all periods analysed with 95.0% analysis of variance confidence levels and has no indication of serial autocorrelation in the residuals at a 95.0% confidence level. This ROA efficiency combination can be depicted as follows:

- (8) $\text{ROA next year} = \text{Constant} + \text{Coefficient} \times \text{CRS score} + \text{Coefficient} \times \% \text{ change in CRS score} + \text{Coefficient} \times \text{ROA} + \text{Coefficient} \times \% \text{ change in ROA}$

Table 6: Linear regression relationship between different ROA efficiency adjustments and ROA in the next financial year over the period 2001 to 2008

Independent variable/combination of independent variables	Dependent variable	R^2 mean %	Adjusted R^2 mean %	Highest P-Value	Lowest DW (p value)
CRS ROA	ROA next financial year	85.70486	80.9398	0.0466	0.0368
CRS % change CRS ROA	ROA next financial year	91.49036	86.3846	0.081	0.1364
CRS	ROA next	95.69157	91.38313	0.0233	0.2051

% change CRS ROA % change ROA	financial year				
VRS ROA	ROA next financial year	79.62983	73.17053	0.0354	0.0272
VRS % change VRS ROA	ROA next financial year	88.52607	81.64173	0.0043	0.0573
VRS % change VRS ROA % change ROA	ROA next financial year	90.71283	83.99111	0.2262	0.1124
Scale ROA	ROA next financial year	88.84617	85.12996	0.0404	0.0103
Scale % change scale ROA	ROA next financial year	91.4172	86.2675	0.0634	0.0778
Scale % change Scale ROA % change ROA	ROA next financial year	93.30104	86.6021	0.1372	0.0952
VRS Scale ROA	ROA next financial year	90.667	85.09006	0.0704	0.0171
VRS Scale % change VRS % change Scale ROA	ROA next financial year	96.66504	91.10679	0.1333	0.1033
VRS Scale % change VRS % change Scale ROA % change ROA	ROA next financial year	98.40264	93.61059	0.0927	0.1212
CRS efficiency ROA	ROA next financial year	74.38553	70.72633	0.4253	0.0212
CRS efficiency ROA % change CRS efficiency ROA	ROA next financial year	89.11783	85.49043	0.0229	0.0401
VRS efficiency ROA Scale efficiency ROA	ROA next financial year	84.51603	79.3547	0.2578	0.0273
VRS efficiency ROA Scale efficiency ROA % change VRS efficiency ROA % change Scale efficiency ROA	ROA next financial year	94.72577	89.4515	0.0668	0.2149

The R^2 mean indicates that the model as fitted explains 95.69157% of the variability in ROA in the next financial year. The adjusted R^2 which is more suitable for comparing models with different numbers of independent variables is 91.38313%. The one way analysis of variance P-value is less than 0.05 in regression applied for all of the years 2001 to 2008. Therefore there is a statistically significant relationship between the variables at the 95.0% confidence level. The Durbin-Watson (DW) statistic tests the residuals to determine if

there is any significant correlation based on the order in which they occur in the data file. Since the P-value is greater than 0.05, there is no indication of serial autocorrelation in the residuals at the 95.0% confidence level.

All other ROA efficiency combinations with higher R^2 and adjusted R^2 percentages do not comply in terms of analysis of variance P-values and/or DW statistic tests, as they have all exceeded the 95.0% confidence level requirement in at least one of the periods of time where linear regression was applied to it to find its relationship with ROA in the next financial year. The methodology of Thamron (2009) to create single CRS, VRS and scale efficiency ROA figures also did not provide the best combinations, as only one of the subsets constructed according to his methodology complied in terms of analysis of variance P-values and/or DW statistic tests, but provided lower R^2 and adjusted R^2 percentages.

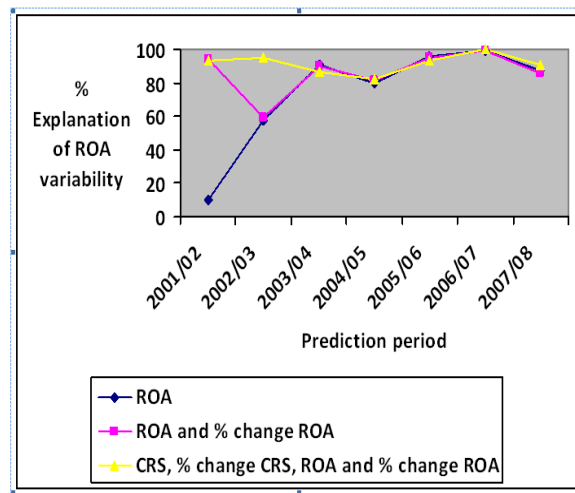
Evidence that the combined CRS efficiency and ROA model provides fundamental measures of performance that have a causal link with future profits are reflected in the information contained in table 7 and figure 1.

Table 7: Comparison of linear regression links with future performance for ROA and the combined CRS and ROA model

Independent variable/combination of independent variables	Dependent variable	R^2 mean %	Adjusted R^2 mean %	Highest P-Value	Lowest DW (p value)
ROA	ROA next financial year	77.60053	74.40061	0.2066	0.0215
ROA % change ROA	ROA next financial year	89.74481	86.32641	0.0286	0.0134
CRS % change CRS ROA % change ROA	ROA next financial year	95.69157	91.38313	0.0233	0.2051

ROA itself does not serve as an ultimate good predictor of future ROA performance of the bank groups since it does not conform to 95.0% confidence levels over the total period of time (2001 to 2008) that this research has been conducted. However, the prediction value of ROA is improved substantially by also considering the % one-year historical change in ROA that occurred. This combination of ROA with the change in it provides an average 86.32641% explanation of ROA variability in the next financial year based on the adjusted R^2 statistic whilst complying to 95.0% analysis of variance criteria and no indication of serial autocorrelation in the residuals at the 95.0% confidence level. The graphical depiction of the adjusted R^2 for each of the periods of time that the linear regression has been conducted (refer to figure 1) shows that combining the CRS efficiency of bank groups with ROA provides a more reliable measure of future performance as the adjusted R^2 of it remained fairly constant whilst the adjusted R^2 of ROA as predictor of financial performance of bank groups was only 10.4868% in 2001 and 57.5021% in 2002. ROA and the combination thereof with the percentage change in ROA also only provided a 59.4216% explanation of the ROA variability in 2003. The combination of CRS efficiency with ROA, however, retained a high level of ROA prediction over the total period of time.

Figure 1: ROA and CRS efficiency combined with ROA in the explanation of ROA variability in next financial year – 2001 to 2008



SUMMARY AND CONCLUSION

The ROAs of some major South African bank groups have individually fluctuated quite extensively during the period 2000 to 2007 irrespective of macro-environmental factors that affected the banking industry as a whole. As such some showed increases in ROAs whilst others showed decreases. It was only in 2008 that all the bank groups experienced a decline in ROAs due the impact of the global financial crises.

Researchers like Ho and Zhu (2004) indicated that ROA is the bottom line result that shows the combined effects of income, expense and asset management on operating results of banks. Dehning and Stratopolous (2002) state that DuPont analysis makes a simultaneous analysis of efficiency and profitability possible and it shows how they interact to determine ROA. It is within this context that researchers like Kirkwood and Nahm (2006), Iounidis, Molyneux and Pasiourus (2008) have examined both cost and income efficiency by way of DEA to compare the performance of banks. The focus of the aforementioned research and the statement of Murthy, Nandakumar and Wague (2008) that banks are more interested in ensuring continued profitability than in achieving efficiency can be regarded as an indication that ROA can be supplemented by income and cost efficiency measures as performance indicators. The expectation is therefore that the combination of the relative performance efficiency of banks and operating bottom line results (ROA) may have a causal link with future profits and can be utilised in estimating future financial performance.

The study consists of a two stage process. DEA is conducted and resultant DEA scores are combined with the calculated ROAs of banks to provide efficiency adjusted ROAs. The findings of this research paper show that combining the CRS efficiency of bank groups with ROA provides a more reliable measure of future financial performance than just conventional ROA figures. The model constructed from the analysis also provides better predictions of future financial performance than ROA efficiency adjusted figures of Thamron (2009). The model can therefore be useful to management, shareholders, investment analysts and portfolio managers.

The findings of the research are subject to certain limitations. The fact that there are only nine listed bank groups in South Africa whose financial statements could be analysed, and the fact that sufficient available information could only be retrieved from 2000 implicates the validity of the findings within a broader context. Furthermore, the number of inputs and outputs used in DEA had to be reduced to obtain suitable discrimination between the bank groups.

Findings of the research should be interpreted with cognisance of the fact that, notwithstanding the limitations of the research, further analysis can be conducted in other environments with the inclusion of more bank groups over longer periods of time to verify the causal links between relative income and expenditure

efficiency and future profits and how it can be utilised in estimating future financial performance. It is therefore recommended that future research be conducted in this regard.

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STRATEGY AND COMMUNICATION

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ABSTRACT

To benefit from employees understanding strategy and to avoid stress and uncertainty, employees must understand the big picture. A better understanding of one's individual role and how that role fits with the organizational strategy, results in employees knowing how she or he can contribute to an organization's objectives. However, to achieve strategic fit takes time. Communicating a strategy effectively is very challenging. Organizations should painstakingly focus on supporting all employees understanding of strategy along with their individual contributions to strategic success. However, individuals vary and need different types of strategic information, communication and training.

JOB AND ORGANIZATION STRATEGY IN A PERFECT FIT

The whole, 'big picture' is always more than any separate part alone. That applies also to the working environment. Every single task and position is valuable in a well organized and lean company, but the actual synergy and value comes from the company as a whole. Organizations should form a working entity where everything is in place and everything works in a coordinated manner. "The competitive value of individual activities cannot be separated from the whole, competitive advantage grows out of the *entire system* of activities." Porter (1996). Henry Mintzberg highlights this link "So I think the link between strategy and operations is absolutely critical." (McCarthy, 2000)

Porter (1996) argues for three types of fit. The first one is consistency between each activity/function and the overall strategy. Consistency makes sure that the competitive advantages of activities accumulate without eroding or canceling themselves out. This fit makes the strategy easier to communicate furthermore, strategy implementation is easier due to a common mind-set in the organization.

For new employees it can be hard to see the company from a birds eye perspective. Therefore, it is understandable that newcomers view their position from a narrow perspective. Only after some time one familiarize oneself with company values, strategy, culture, organization and, policies. Newcomers and recently hired personnel lack the vision of the whole (Porter, 1996). This gap can be quite dangerous if employee doesn't understand strategic objectives and how she or he contributes to these i.e. mis-alignment with the organizations interest and needs. Lack of alignment results in conflicting goals (Boswell, 2006)

Understanding one's role in an organization and the link to strategy it's very important, however, employee should not have too narrow way of a view. True understanding of strategic objectives and ones role in their achievement needs different perspectives, not just a single job position perspective. Lawler (1994) states that a paradigmatic shift by employees is required from that of just performing a narrowly defined task to a perspective where employees understand the 'big picture'. This understanding allows them to contribute more valuably to company goals (Boswell, 2006).

The challenge, however, is how all employees can develop a big picture perspective Boswell's (2006).demonstrated that some positions in an organization are negatively related to employee understanding of strategic objectives . He suggests that job rotation results in broader line-of-sight in an organization's strategy. Staying in one position for too long results in employees losing touch of the 'big picture' ,and perhaps becoming entrenched in one specific job function. (Boswell, 2006)

Balkcom and Brossy (1997) have investigated the difficulty of lower-level employees understanding how they make a personal impact on a firm's performance. Managers and other high level staff do not have this problem as they are the ones setting the goals. Employees higher in the organization and/or with longer working experience, therefore, have greater understanding of how they themselves contribute to an organizations strategy (Boswell, 2006). However, knowing the company strategy is not enough. When the organization's goals (especially an individual's) are understandable, employees will feel greater fit ,belonging and commitment (Boswell, 2006; Schneider, 1987 in Boswell, 2006). Greater fit between individual employees and the strategy results in a more positive work attitude, meaningfulness and employee satisfaction (Boswell, 2006; Vroom, 1960 in Boswell, 2006). Lower level employees, recently recruited, temporary and part-time employees may be less committed to an organizations strategy due to the uncertainty involved with their job, impersonal nature of their work and exclusion from strategic issues (O'Reilly and Chatman, 1986 in Boswell, 2006; Boswell, 2006).

To benefit from employees understanding strategy and to avoid stress and uncertainty, employees must understand the big picture. A better understanding of one's individual role and how that role fits with the organizational strategy, results in employees knowing how she or he can contribute to an organization's objectives (Boswell, 2006). However, to achieve strategic fit takes time. (Porter, 1996; Boswell, 2006). Communicating a strategy effectively is very challenging. Organizations should painstakingly focus on supporting all employees understanding of strategy along with their individual contributions to strategic success. However, individuals vary and need different types of strategic information, communication and training (Boswell, 2006).

Communicating strategy - a dialogue with employees,

Managers play a key role in strategic communication. Leader's teach others in the organization (Porter, 1996). Strategy as the direction of an organization, can be very collective (McCarthy, 2000). Middle management work closest to the average employees in every organization (Axley, 1996 in Bartoo & Sias, 2004, Bartoo & Sias 2004), and their communication apprehension counts more than employee's communication apprehension with respect to the overall amount of information employees receive. It is important, therefore, to monitor and make sure that middle management won't be a blockage (Porter, 1996).

Moreover, when communicating, it's wise to use people whom employees already trust, because what they say will be trusted as well. For most organizations this means targeting frontline managers (Larkin & Larkin, 2006). Senior management are the architects of the strategy and are mostly concerned with big issues and important changes in strategic direction. Frequently, the communication of senior management is formal, public and does not increase trust, especially emotional trust associated with behavior change.(Larkin & Larkin, 2006).Therefore, it is the role of middle managers to make sure the company direction and goals are informed and understood on a grass-root level. Two-way communication and dialogue is required in order that workers are not in a passive role/position. A open and psychologically equal relationship between individual employees and their closest superior is needed.

Line managers should be above employees only on an organizational level, but not in a communication relationship. "A manager may maintain appropriate role, authority and status without necessarily resorting to negative power strategies, such as domineering or coercive communication." (Willemyns, Gallois & Callan, 2003). Managers should treat subordinates as individuals and respect each employees contribution to the business. By respecting employees and getting to know employees on an individual level, manager stereotypes vanish, perceptions of power decrease and perceptions of trust is maximized (Willemyns, Gallois & Callan, 2003).

Kahn (1990) studied experienced relations with people from different hierarchical groups. He found that relationships between different hierarchical groups are perceived to be more threatening than relations within a hierarchical group. If employee doesn't feel safe and comfortable around a manager, he or she may not be able to express himself / herself openly. Thus, supportive management and interpersonal relationships create psychological safety when they perceived as supportive and trusting. These relationships are flexible and allow people to try and also to fail, without fearing the consequences. (Kahn, 1990). However, managers can communicate their superior status in the relationship both explicitly and implicitly (Willemyns, Gallois &

Callan, 2003). Managers must communicate openly with subordinates and minimize status distinctions (McGregor (1960, in Daniels, Spiker, Papa, 1997, p. 33-34)). Moreover, management must help create an environment in which employees become both emotionally engaged and cognitively engaged.

Trust

A climate of trust with employees can be developed (1960, in Daniels, Spiker, Papa, 1997). However, subordinates' ideas and opinions must be taken into account and the climate must support employees'. Work climate includes decentralization of decision making, delegation of authority to subordinates, variety in work tasks and participative management in which subordinates have influence in decisions that affect them. (McGregor (1960, in Daniels, Spiker, Papa, 1997, p. 33-34)). Many things affect an employee's perception about his or her manager, however, open communication is most important as the manager can either share or withhold information. The latter creates uncertainty, fear and distrust (Douglas, 1990, 1994; Kramer, 1994 in Bartoo & Sias, 2004; Willemyns, Gallois & Callan, 2003). Employees who feel they are not getting enough information required to effectively carry out tasks are suffering from information under load and this can have negative implications on task performance (Bartoo & Sias, 2004)

Managers, who act as mentors, naturally create trust between the subordinates (Willemyns, Gallois & Callan, 2003). Four dimensions of mentoring have been identified. Emotional support includes trust, concern, listening and esteem. Appraisal support involves affirmation and feedback. Informational support involves, suggestions, directives and information. Finally, instrumental support involves money, labor and time. Developing and maintaining trust relationships needs frequent interaction between the manager and their peers (McAllister, 1995). Real trust is based on emotional bonds with individuals (Lewis & Wiegert, 1985 in McAllister, 1995). Seabright and colleagues' (1992: 155) thus social ties are needed in highly specific relationships. Developing trust needs time, interactions, informality and emotionality (McAllister, 1995, Larkin & Larkin 2006). People who invest emotionally into trust relationships, express genuine care and concern for the welfare of partners and believe others would do the same for him or her (Pennings & Woiceshyn, 1987; Rempel et al., 1985, in McAllister, 1995). When there is trust, people are willing to use and share the knowledge they have as the basis for action (Luhmann, 1979, in McAllister, 1995).

Along with trusting, strategy communication has to be clear and transparent so as to guide employees in making choices and decisions during their daily tasks (Porter, 1996). In addition to strategy communication as such it's also important to bring out the energy in people by creating systems that encourage and stimulate them (McCarthy 2000).

In order to do ones job in the best way a person needs and wants to belong to a group. People want to participate, and see that others value their participation and that the participation is meaningful for them as well as for the organization. People also want to have some decision rights, a role that counts for something and feel as if they own some part of the outcome. People want to feel useful and important and it is the manager's basic task to make each worker feel that way. Employees desire to belong and to be recognized as individuals. Needs are more important than money in motivating people to work. (Daniels, Spiker, Papa, 1997 p. 36)

Communication accommodation (CAT) proposes that individuals converge in order to signal affinity with, or seek the approval of the other person (Willemyns, Gallois & Callan, 2003). According to the similarity-attraction theory (Byrne, 1971, in Willemyns, Gallois & Callan, 2003)), individuals are likely to be attracted to people who are similar to themselves in terms of personal characteristics or group membership. Individuals are more likely to trust in-group members than out-group members (Willemyns, Gallois & Callan 2003). Likert (in Daniels, Spiker, Papa, 1997) states that participative management system (p. 34-35) support realistic performance goals. People want to contribute to meaningful goals which they have helped establish. Most people can exercise far more creative, responsible self-direction and self-control than their present jobs demand. (Daniels, Spiker, Papa, 1997 p. 36)

Manager should, therefore, share information with the employees and listen to their objections to plans. This requires full participation on important matters and a continually broadening subordinate/self-direction. Involving people in routine decisions satisfies the basic needs to belong and to feel important. From this basis,

cooperation comes willingly. (Daniels, Spiker, Papa, 1997 p. 36). However, to experience ones job as meaningful, employees must be able to feel worthwhile, useful, and valuable. Employees want their opinions to count. (Kahn, 1990) In addition to a certain amount of autonomy (task without tight link to others or control by others) ones position should include some ownership over the work (Hackman & Oldham, 1980, in Kahn 1990). Tasks perceived as meaningful have clear goals which allow employees to have a chance for success (cf. Locke, 1968, in Kahn, 1990).

Moreover, work interactions need to be meaningful because they promote dignity, self-appreciation (e.g. people want to do what they can), and support a sense of worthwhileness. Such interactive environments enable relationships in which people want to give and receive from others, allow people to feel valuable and valued and involve mutual appreciation, respect and positive feedback. (Kahn, 1990)

Values

Employees need to understand corporation values, why they are valued, and how to transform values into action. This is hard to achieve. However, manager have to pursue this understanding, because company values can't be left as statements on paper; they have to be moved from objective statements to subjective realities i.e. each and every employee should transform the corporate words about values into personal commitments and experiences. This challenging process is fulfilled through communication. (Clampitt, 2001 p. 60)

In communicating values clearly, concrete examples and symbols are the key words: what we do as individuals and why we do them, how the organization has inherited its culture (our history). In doing so one is trying to link the individual employee to organizational value and to specific actions. Values can be used to structure information in order to provide both a focus and a reminder. Stories as a mechanism to move the values from stale statements written on a piece of paper to a fresh testament written in the hearts and minds of employees are powerful tools. Effective communication assists in the evolution of the meaning of the values, as there might be a (temporary) period of time when the stated and practical values don't match and this may cause confusion among employees. (Clampitt, 2001, p. 60-69)

Individual employees and organization values should be able to co-exist, even though they do not totally match each other. To be psychological available at work, individuals should not feel insecurity in their jobs. If an employee feels that he or she doesn't somehow fit with his or her organization and its purposes, they can become absent and perform tasks at a lower level of performance (Kahn, 1990). If there is a conflict between a person's own values and company values, it is quite difficult for people to be personally engaged in fulfilling work processes (Mowday, Porter, & Steers, 1982, in Kahn 1990). Furthermore, managers have an important role in communicating, as they can be a model example of the company values. Employees often feel obligated to have the same values as their supervisors have and at the same time they long for values they can believe in (Clampitt, 2001). When people come to work they have own values included in their personalities and live their lives based on those values. Thorton Bradshaw, a former president of Atlantic Richfield and chairman at RCA has stated that 'every employee comes with a set of ethics of their own and organizations should not twist or distort those ethics (Freudberg 1986, p. 230, in Clampitt, 2001). By managing this bi-polar aspect of values, ones own and the organizations values will be conflict free.

Job role & Decision Rights

Organizational leaders are not the only ones making decisions. Leaders share some power by engaging the right groups in everyday actions. The resulting quality of decisions is better, since they are made collectively by experts. The speed of execution is increased when this is done because people who feel ownership of the outcome work more effectively (Smythe, 2008). Thus, subordinates should be allowed to exercise some self-direction and self-control on routine matters. (Daniels, Spiker, Papa, 1997 p. 36). However, in order to gain, organizational priorities should be crystal clear. There should not be a mismatch between the organization image and employees' roles or a mismatch in ones individual activities compared to the company strategy. If employees try to offer everything for everyone, companies risk confusion in the trenches as employees attempt to make day-to-day operating decisions without a clear framework (Porter, 1996). Clear and explicit decisions and choices must be made. Therefore, choices become the parameters within which people are allowed to operate with autonomy (McCarthy, 2000)

However, job role clarity is not enough. The level of decision rights must be defined as well. Great execution starts by clarifying decision rights and making sure information flows freely to the right persons who are able to fulfill their responsibilities (Nielson, Martin and Powers 2008). Decision rights include responsibilities and these have to also be clarified. Sharing information should go further than line employees just having bits and pieces of information in order to understand the bottom-line impact of their day-to-day choices. When everyone in the company understands the business realities from their own but also from their co-worker's point of view, cooperation will be more effective and everyone will be acting the organizations best interests. (Nielson, Martin and Powers, 2008)

However, role clarity is vital, as many employees have several roles in the organization (Saks, 2006; Rothbard, 2001, in Saks, 2006; May et al., 2004, in Saks, 2006). Understanding how one helps the organization achieve strategic success requires that each employee knows accurately what is expected of him or her. (Boswell, 2006) In role theory construct role ambiguity is defined as uncertainty or lack of clarity surrounding expectations' (Ilgen and Hollenbeck, 1991: 191, in Boswell, 2006). Roles and performing them, feels safe when it happens within the boundaries of organizational norms (Kahn, 1990). Norms are shared expectations about the general behaviors of system members (Hackman, 1986, in Kahn, 1990). Moreover, "work role clarity is strongly linked to employee engagement, and to the extent that an individual is psychologically present in a particular organizational role (Kahn, 1990; Rothbard, 2001, in Saks, 2006). Engaged employees know what is expected of them, they form strong relationships with co-workers and managers, or they experience meaning and importance in their work in some other way. Engaged employees also have some autonomy in their work roles (Luthans & Peterson, 2001). Employees who are given opportunities to excel and grow, and who are constantly seeking information to help to proceed to the wanted direction (i.e. cognitive engagement) are more likely to experience success (Luthans & Peterson, 2001) Bandura (1986, 1997). When there exists higher self-efficacy, person becomes more active, initiating tasks, sustaining effort toward task accomplishment, and persisting in problem situations'.

Employees feel safe in situations where they don't have to be afraid of suffering because of their personal engagement. Safety is present when people are able to show and employ one's self without fearing negative consequences to self-image, status, or career, and when people have some control over their own work. (Kahn, 1990) In two studies done by Kahn (1990), situations where there was trust in place were predictable, consistent, clear, and non-threatening. People knew what they were allowed to do and what should not be done. Also the potential consequences of their behaviors were clear. Rules for what is allowed and what is not must also be in place, otherwise people create internal boundaries in order to feel safe (Hirschhorn, 1988, in Kahn, 1990).

However, communication skills are vital in the strategy communication process. (Willemyns, Gallois & Callan 2003), highlight the importance of developing communication skills in order to maximize employees' perceptions of belonging to a group and valued as a group member. Furthermore, effective communication builds trust in the workplace (Willemyns, Gallois & Callan, 2003). Improved communication skills increases the trust between the manager-employee. However, managers have to work harder than employees to build and maintain trust. (Willemyns, Gallois & Callan, 2003). Lack of trust or recognition does not belong to a group who value members as group members and as individual human beings. (Willemyns, Gallois & Callan, 2003). Organization must truly value effective interpersonal communication and a supportive culture, otherwise employees won't expend the extra time and effort that is necessary to communicate properly. (Gordon, 2006)

EMPLOYEE ENGAGEMENT

Richman (2006) and Shaw (2005) state that employee engagement is emotional and intellectual commitment to the organization (Saks, 2006, Frank et al. 2004). Employee engagement relates to the amount of discretionary effort exhibited by employees in their jobs (Saks, 2006). Rothbard (2001, p. 656) argues that employee engagement is a psychological presence involving attention and absorption. Attention refers to cognitive availability and the amount of time one spends thinking about a role and absorption refers to how into a role one is and in what intensity she or he is focusing on it. Employee engagement is characterized by energy, involvement, and efficacy (Saks, 2006).

Employee engagement is a positive, fulfilling, work-related state of mind, characterized by vigor, dedication, and absorption. It's not a momentary and specific state focusing any particular object, event, individual or behavior (Saks, 2006). Engagement is a persistent state of work fulfillment, where passion, focus, and energy are the key components (Wildermuth 2008). Take away any of these three factors, and the overall level of engagement will suffer (Robinson et al. 2004) Engagement is a two-way relationship between the employer and employee (Saks, 2006).

However, for an employee to be engagement the workload, control, rewards and recognition, community and social support, perceived fairness, and values have to be on a correct level. Furthermore, job engagement is associated with meaningful and valued work. (Maslach et al., 2001, in Saks, 2006) Engaged leaders and employees, who actually deliver the service or make change happen have shared power where subordinates are involved in everyday decision making and also in bigger changes. (Smythe, 2008)

To be or not to be personally engaged is shown during the daily tasks the level of a person's overall personal engagement depends on how engaged the employee is physically, cognitively and emotionally. Engagement will exist if the employee is cognitively vigilant and/or emotionally connected to others. Engaged employees feel obliged to bring themselves more deeply into their role performances as repayment for the resources they have received from their organization. (Kahn, 1990)

However, different psychological states influencing people's internal work motivations and affect how (engaged) people see their selves in connection to their role (Kahn, 1990; Hackman and Oldham, 1980, in Kahn, 1990). Meaningfulness associates with work elements that create incentives or disincentives to personally engage. Safety associates with elements of social systems that create more or less non-threatening, predictable, and consistent social situations in which to engage. Availability associates with individual distractions that preoccupy one to various degrees and leave one more or fewer resources with which to engage in role performances. (Kahn, 1990)

Psychological meaningfulness is about getting something back in return for what one has given to the organization (Kahn, 1992, in Saks, 2006). Hackman and Oldham's (1980, in Saks 2006) job characteristics model contains five core characteristics: skill variety, task identity, task significance, autonomy, and feedback (Saks, 2006). Based on the model, Kahn (1990, 1992 in Saks, 2006) argues that psychological meaningfulness can be achieved from task characteristics that provide challenging work, variety, allow the person to use different skills and to have personal discretion, and the opportunity to make important contributions (Saks, 2006). According to May et al. (2004, in Saks, 2006), job enrichment relates to meaningfulness and meaningfulness mediated the relationship between job enrichment and engagement (Saks, 2006). Thus, it could be said, based on the Social exchange theory (SET), that employees who have enriched and challenging jobs will feel obliged to respond with higher levels of engagement (Saks, 2006).

When employees are more engaged (cognitively and/or emotionally), managers are more confident that they can build an engaged team . Thus manager's self-efficacy is related to employee engagement and vice versa (Luthans & Peterson, 2001). However, it's very common nowadays, that employees are not fully engaged with their work. Roughly half of all Americans in the workforce are disengaged or experience a "engagement gap" (Saks, 2006).

Organizational commitment refers to a person's attitude and attachment towards their organization and engagement refers to the degree to which an individual is attentive and absorbed (how they employ themselves) in the performance of their roles. Social exchange theory (SET) states that relationships evolve over time into trusting, loyal, and mutual commitments as long as the parties follow some rules regarding the exchange in relationships (Cropanzano and Mitchell, 2005, in Saks, 2006). These rules usually involve reciprocity or repayment such that the actions of one party lead to a response or actions by the other party, e.g. employee gets some resources from the company or feels obligated to do his or her share with those resources. (Cropanzano and Mitchell, 2005, in Saks, 2006)

Employees can really make a difference based on the level of engagement they choose to give to the organization. When the organization fails to provide the resources needed, individuals are more likely to withdraw and disengage themselves from their roles (Saks, 2006). However, employee engagement is time-consuming, long-term and a on-going process that requires continued interactions, commitment and monitoring

(Wildermuth, 2008; Cropanzano and Mitchell, 2005, in Saks, 2006). Employees who perceive higher organizational support are more likely to reciprocate with greater levels of engagement in their job and in the organization. . Employees, who feel they have been treated fairly, will most likely reciprocate with greater organization engagement. Moreover, engaged employees have high-quality relationships with their employer, positive attitudes, intentions, and behaviors. (Saks, 2006)

Social Exchange Theory supports the idea that employee are on a mission to help the organization reach its objectives (Rhoades et al., 2001, in Saks, 2006). Employees are very willing to fulfill their obligations to the organization by becoming more engaged when they feel their organization is genuinely concerned about them and their well-being (Saks, 2006). The support received from the supervisor, affects employee engagement, because employees perceive supervisor level support as organizational level support as well (Rhoades and Eisenberger, 2002, in Saks, 2006). Similarly, Bates (2004) and Frank et al. (2004) state that first-line supervisors are believed to be especially important for building engagement and to be the root of employee disengagement (Saks, 2006).

However, engagement happens on an individual level impacting firstly the individual-level outcomes, and after that it leads to possible business results. Based on this, it's reasonable to expect employee engagement to be related to individuals' attitudes, intentions, and behaviors. (Saks, 2006) According to Kahn (1992, in Saks, 2006), engagement leads to individual outcomes, meaning firstly people's work quality and experiences and after that to organizational-level outcomes, meaning the organization's growth and productivity.

Thus, trusting and high-quality relationships between the employee and employer result in more engaged individuals, who in turn will most likely report more positive attitudes and intentions toward the organization (Saks, 2006).

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A COMPARATIVE STUDY OF BOTH COMPLIANT AND NON-COMPLIANT PERSONAL TAXPAYERS IN AUSTRALIA

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ABSTRACT

The tax compliance literature indicates that many factors, including, economic, social, psychological and demographic, impact upon the compliance behaviour of taxpayers. This research study investigates the relationship that exists between major tax compliance variables and the attitudes of both selected Australian personal taxpayers' and tax evaders' towards tax evasion. Research support from both the Australian Taxation Office and a market research company was engaged in carrying out the study. The study employed a mixed method approach drawing data from both a survey instrument and through interviews. It is envisaged that the results of this study provides useful information for revenue collecting authorities and has implications for tax policy development.

INTRODUCTION

An important issue for any government and revenue collecting authority is to obtain knowledge and understanding of the reasons for taxpayer non-compliance. However, measurement of the magnitude of intentional and unintentional non-compliance can be difficult as it involves estimating levels of uncollected tax, which by its nature is not detected by the revenue authority. The amount of tax lost through evasion is potentially enormous. (The IRS estimated it to be \$US 345 billion in 2006 which amounted to 16.3 percent of estimated actual paid plus unpaid tax liability -Slemrod 2007). In Australia an estimate of the underground economy was 10 billion or 1.2% of the level of GDP in 2002-03. Consequently to prevent the erosion of government revenue, further research is required into understanding taxpayer attitudes and behaviour.

There are two broad schools of thought regarding taxpayer compliance which emerge from the literature. The first is studies based around the theory of economics that explain the varying levels of taxpayer compliance. The second is studies based on theories of psychology and sociology that also explain the varying levels of taxpayer compliance. The focus of this study will primarily be on three compliance variables, which have been predominant throughout the review of the literature. They are the economic variable of deterrence which includes (the likelihood of being caught and the range of penalties applied to those who are caught) and the psychology variables of moral values and the perceptions of equity and fairness held by taxpayers.

Logic suggests that the most efficient way to design an affective taxpayer compliance program would be to concentrate on the factors that appear to have the most impact on compliance levels. Of all the variables examined by scholars, deterrence, equity and moral values have been critical and accordingly the focus of this study is on these three factors. This study also expands upon a prior study conducted by Ian Wallschutzky (1984) over twenty-five years ago who also investigated the attitudes and behaviours of both compliant and non-compliant taxpayers. The remainder of this paper is organized as follows. Section 2 outlines the main research questions addressed and the methodology adopted in this study. This is followed by a discussion and analysis of the research findings and empirical evidence in section 3. Finally, section 4 of the paper concludes the study and provides some tax policy considerations.

RESEARCH STUDY

Research Questions/Hypothesis

As indicated earlier the major attitudinal variables of interest in this study comprise fairness/equity of the tax system, the moral values of taxpayers' and deterrence mechanisms such as penalties and law enforcement measures. The possible relationship between these variables and taxpayer's compliance attitudes/behaviours was considered in the context of six main research questions (RQ) and hypothesis (H) which follow:

- RQ1 Is there is a relationship between taxpayers' perceptions of tax penalties and sanctions and their tax compliance attitudes/behaviour?

H1: There is a relationship between taxpayers' perceptions of tax penalties and sanctions and their tax compliance attitudes/behaviour.

- RQ2 Is there a relationship between taxpayers' perception of tax fairness and their tax compliance attitudes/behaviour?

H2: There is a relationship between taxpayers' perception of tax fairness and their tax compliance attitudes/behaviour.

- RQ3 Is there a relationship between taxpayers' tax morals and their tax compliance attitudes/behaviour?

H3: There is a relationship between taxpayers' tax morals and their tax compliance attitudes/behaviour.

- RQ4 Is there a relationship between taxpayers' perception of tax law enforcement by the revenue authorities and their tax compliance behaviour?

H4: There is a relationship between taxpayers' perception of tax law enforcement by the revenue authorities and their tax compliance attitudes/behaviour.

- RQ5 Is there a relationship between taxpayers' perception of the probability of detection by the revenue authorities and their tax compliance attitudes/behaviour?

H5: There is a relationship between taxpayers' perception of the probability of detection by the revenue authorities and their tax compliance attitudes/behaviour.

- RQ6 Is there a relationship between taxpayer's tax awareness and their tax compliance attitudes/behaviour?

H6: There is a relationship between taxpayers' tax awareness and their tax compliance attitudes/behaviour.

Research Methodology

The Survey Instrument

The survey instrument comprised six sections including 31 questions, of which there were many parts to most questions and a space at the end for comments. The six areas covered included, general tax awareness, penalties and deterrence, tax law enforcement, tax fairness, tax morals and finally demographic details. In most cases a seven point likert scale was used with scales ranging from strongly agree (7) to strongly disagree (1) and moderate scores found in between the two extremes. Ajzen and Fishbein (1980) argued that a number of studies administered on different occasions provide evidence that the standard attitude scales are highly reliable in measuring the strength of beliefs and intentions. In particular Ajzen and Fishbein have cited other studies, Czaja and Blair (1996) which reported test-retest reliability greater than 0.95 for the "likely –unlikely scale."

The Survey Sample and Interviews- Evader Group

Fowler (1993) indicated that a sample of 150 people would describe a population of 15,000 or 15 million with virtually the same degree of accuracy. On this basis, it was determined that, somewhere between 150-300 usable responses for each group (evader and non-evader) would be desirable for this study given the taxpaying population in Australia.

A mail-out version of the survey was conducted for a random selection of personal taxpayers labelled the evader group (i.e. non-compliant taxpayers). The sample frame was to be those personal taxpayers that, according to ATO records, had lodged tax returns for three previous income tax years, including 2004, 2005 and 2006 and had been audited and subjected to a penalty. In accordance with the researcher's specifications, tax evaders were randomly selected based on the following criteria; age, gender, marital status, agent prepared or not, location, (which Australian state/territory) occupation and the level of income, all of which could be determined from their tax returns. The other important demographic variables relevant to this study which were indirectly

identified were the educational level of those taxpayers given their occupational groups, nationality based on residence and also that they had lodged tax returns in the previous and current year.

The sample population was 700 records for this evader group. Given an expected response rate of 25—30 per cent, this number would result in a sample size of at least 150—200 respondents which would be sufficient in terms of the credibility of the results. Names and addresses of those selected were only known to the Australian Taxation Office (ATO). Understandably due to the privacy provisions, the ATO was not willing to allow the researcher direct access to taxpayers' details. To satisfy this condition the surveys were supplied by the researcher to the ATO who conducted the distribution of the surveys to the evader sample. The survey responses were then received by the researcher directly at the University. Such an approach maintained taxpayers' privacy in that neither the researcher, nor the ATO, could match taxpayers' details to completed surveys. As the study was conducted in conjunction with the ATO, it was considered that this approach would also improve response rates. The actual response rate received for this study was (174/636 effective distributions = 27.4%). Other previous tax compliance studies indicate that a response rate of anything between 25%- 30% is acceptable in tax surveys –Murphy (2003). A small number of survey participants (six) who voluntarily provided their contact details were also interviewed over the telephone-Dillman (1978). It was considered that the findings derived from these interviews would compliment and cross validate the results from the survey component of the research study.

The Survey Sample and Interviews- General Population

With respect to drawing a sample from the general population, in the absence of ATO support, it was considered that a market research company could be approached to perform this task. The particular market research company had access to quite a large database of people from the general population, identified by various demographics and were able to distribute an electronic version of the survey instrument to potential participants. Given the required selection criteria (ie specific demographics that were representative of the Australian taxpaying population) the market research company were able to select a sample of 300 personal taxpayers labelled as non-evaders (i.e. compliant taxpayers). That is, it was assumed that there were no tax evaders in this group, given the likelihood of this occurring being very small. Every person on the data base of the market research company also had the same probability of being selected given the cross section of taxpayers required for the sample.

This sample was generally representative of the Australian population according to figures released by the Australian Bureau of Statistics (ABS). Taxpayer privacy was maintained at all times, as no names or address were released to the researcher given it was an anonymous survey. A small group of taxpayers (seven) who had participated in the survey were contacted by the market research company and also happy to be interviewed in person.

Selected Statistical tests

Specifically in terms of an exploratory analysis and giving a snapshot of the data gathered, it was considered that employing chi-square tests was appropriate to explore the relationship between various categorical variables (i.e. compliance behaviour against perceived tax penalties, tax fairness, tax law enforcement, tax morals and tax awareness – excluding demographics). Chi-square, as a non-parametric technique is ideal for situations where data are measured on nominal (categorical) scales and also where sample sizes are relatively small Pallant (2005), as is the case here. Chi-square is also a fairly robust test that does not have such stringent requirements and does not make assumptions about the underlying population distribution. To extend the quantitative component of the study, logistic regression was also employed to give the overall analysis more rigor and improve the validity of results.

Initially, for the purpose of the preliminary analysis the chi-square statistical test was chosen to investigate the affect of selected survey questions upon compliance behaviour. Specifically, survey questions two, four, eleven, twelve, fifteen and seventeen were statistically analysed in the study against question seven, compliance behaviour. These questions represented the thrust of the study in terms of; tax penalties for non-compliance, taxpayers' awareness, law enforcement, tax morals and tax fairness. The variables employed were tested for statistical significance at the 5 per cent level. (i.e. statistically significant at $p < \text{or} = 0.05$) Cross tabulation (SPSS output) of the chi-square results was examined to determine the relationship between the dependent and

independent variables while the frequencies and percentage breakdown of responses to selected questions was also examined to enable comparisons with other studies-Birch, Peters and Sawyer (2003).

DISSCUSSION AND ANALYSIS OF RESEARCH FINDINGS

Demographic Profile of the Evader Sample

The demographic profile of the evader sample of 174, was not totally representative of the Australian population as expected, yet nevertheless produced useful data to assist in the analysis of the research questions posed. Question S1 regarding education level indicated that a large number of those surveyed had obtained an advanced diploma 25(15%) or had completed a bachelor degree 76(45%). This is higher than the average educational level of the Australian population which is more like year 12 level. Question S2 of the survey, categorised occupational groupings according to figures derived from the Australian Bureau of Statistics (ABS). The figures reveal that 24(14%) fell into the clerical, sales and service industry. Interestingly, a further 48(28%) indicated they were in the professional category which would include the likes of doctors, lawyers and accountants. The sub-group of associate professionals/education at 21(12%) included the likes of teachers, academics and social workers. For the few respondents who indicated that they were not working in question S3, the main reason given was that they were retired from paid work, 5 (3%). Question S4 of the survey indicated that the gender breakdown of the sample was also unrepresentative of the Australian population with males 116(67%) and females 57(33%) of respondents. Survey Question S5 revealed where respondents were located in Australia and not surprisingly, the majority came from the more populated states of NSW 56(32%) and Victoria 49(28%). The remaining demographic questions were posed at the end of the survey. In particular, the results of question 23 revealed that the majority 147(86%) of respondents fell between the 20-59 year old age-bracket. Question 24 indicated that the sample was fairly representative of the Australian population with 86 (49%) of respondents indicating that they were born in Australia. Despite the fact that Australia is a very multi-cultural society, the figures are representative of the ABS statistics. On the other hand, in question 25 the majority of respondents 106 (62%) earned \$80,000 or more per annum with a large number 25(14%) earning more than \$140,000 a year. This salary range is unrepresentative of the Australian population and clearly indicated that evaders tended to be in the higher income bracket. However, given that the sample incorporated high income taxpayers' selected for audit activity, there was likely to be an indirect income bias. Finally, Question 26 indicated that the majority of respondents 162(93%) lodged their 2005-06 tax return as expected.

Demographic Profile of the General Population Sample

The demographic profile of the general population sample was fairly representative of the Australian population and consequently produced useful data to assist in the analysis of the research questions posed. In this case, Question S1 ensured that all taxpayers had a taxable income and were required to lodge tax returns. For instance, respondents such as self-funded retirees who were not working but nevertheless had a taxable income in excess of \$6,000 and lodged a tax return, were also included. Question S2 regarding education level indicated that a large number of those surveyed had obtained a leaving certificate 71(24%) or had completed a bachelor degree 59(20%). However, this is higher than the average educational level of the Australian population which is more like year 12 level. Question S3 revealed that the majority 96(32%) fell into the clerical, sales and service industry, a further 56(19%) indicated they were in the professional category. The sub-group of associate professionals/education indicated 39(13%) while Question S4 revealed that the majority of respondents were located in the more populated states of NSW 96(32%) and Victoria 77(26%). Finally, question S5 gave the gender breakdown of the sample which was representative at males 157(52%) and females 143(48%) of respondents.

Of the remaining demographic questions, question 23 revealed that the majority 279 (93%) of respondents fell between the 20-60 year old age-bracket. This is not that surprising given that this age group are probably the most familiar and comfortable with using electronic mediums. Question 24 also indicated that the sample was representative of the Australian population with 206 (68%) of respondents indicating that they were born in Australia. Likewise, in question 25 the majority of respondents 184 (62%) earned between \$20,000 and \$50,000 per annum. This salary range is representative of the majority of the Australian population. Question 26 indicated that the majority of respondents 269(90%) lodged their 2005-06 tax return as expected while finally, in

question 27 for the few respondents who indicated they were not working, the main reason given for this was home duties.

Research Results

From the combined findings matrixes below it is easy to identify the areas of convergence and divergence with respect to the research questions and hypotheses posed under both the quantitative and qualitative components of the study for both the evader group and general population.

Combined Findings Matrix- Evader Sample

Primary Research Question/ Hypotheses	Quantitative Component		Qualitative Component	
	Chi—square results	Regression results	Survey Comments	Interview Findings
RQ1 Penalties*	×	×	×	√ (qualified yes)
H1 Penalties	×	×	N/A	N/A
RQ2 Fairness*	√		√	√
H2 Fairness*	√		N/A	N/A
RQ3 Morals*	√	√ (qualified yes)	√	√ (qualified yes)
H3 Morals*	√	√ (accepted in part)	N/A	N/A
RQ4 Enforcement*	×	√	√	√ (qualified yes)
H4 Enforcement*	×	√	N/A	N/A
RQ5 *Probability of Detection	×	√ (qualified yes)	×	×
H5 Probability of Detection	√ (accepted in part)	√ (accepted in part)	N/A	N/A
RQ6 Tax Awareness	√		√	×
H6 Tax Awareness	√ (accepted in part)		N/A	N/A

It is evident that the perception of fairness of the tax system was clearly influential upon the compliance attitudes and behaviours of non-compliant taxpayers. Despite the absence of regression results, this was supported by the chi-square test results and comments both in the survey and at interview. Some taxpayers even admitted that it was the issue of fairness that had lead them to partake in their non-compliant actions. There are many different facets of fairness which could have been compromised because of the tax system. To a slightly lesser degree the issue of tax morals also indicated converging and complementary results with respect to chi square tests and survey comments. The regression results and interview findings produced some qualifications, however given that the cohort of taxpayers investigated were those who were found to be non-compliant, this qualification is not unexpected. Significant factors such as, self assessment, competitive pressures and a vibrant cash economy nevertheless impacted upon taxpayers' morals and their consequential compliance behaviour.

An examination of the matrix also reveals that tax law enforcement was a factor upon the taxpayers' compliance behaviour. Other than receiving qualifications under both the chi-square tests and at interview, the factor was found to be influential. In this respect there was a clear distinction made by taxpayers between negative and positive enforcement with the latter being preferable. The reason for this became obvious from the interview comments where all taxpayers indicated that the harsh treatment of an audit was undesirable.

However, there was also evidence of a divergence in results regarding other forms of enforcement by way of penalty and the probability of detection. Specifically other than some qualified support at interview, penalties per se were generally viewed as being ineffective in influencing compliance behaviour. There was no authoritative support that an introduction or increase in penalties would lead to improved compliance on its own. The results suggested rather, that penalties ought to be used in combination with other factors, such as, taxpayer education and services, in order to improve compliance. While the results for H5 converged, the divergence was discovered in RQ5 with respect to a perception of a high probability of detection improving compliance behaviour. Other than qualified support from the regression results, tax evaders were of the belief that audit rates and coverage was poor citing the cash economy as a visual example. Consequently it was clear that taxpayers who perceived the probability of detection as low were non-compliant.

Finally, a real divergence in results was discovered for tax awareness and its impact upon compliance. There were no findings under the regression analysis and survey comments were inconclusive with regards to this factor. Where chi-square test results indicated that poor tax awareness results in negative compliance behaviour, this was not supported by comments at interview. In fact it was clear from the interviews that taxpayers did possess general tax awareness with respect to tax avoidance/evasion distinction and evasion opportunities. A

possible explanation for the divergence is that the statistical tests were not able to differentiate between the subtle differences in tax awareness/knowledge.

Combined Findings Matrix-General population sample

Primary Research Question/ Hypotheses	Quantitative Component		Interview Findings
	Chi—square tests results	Regression results	
RQ1 Penalties*	√	(qualified yes)	(qualified yes)
H1 Penalties	√	(accepted in part)	N/A
RQ2 Fairness*	×		√ (qualified yes)
H2 Fairness*	×		N/A
RQ3 Morals*	√		√
H3 Morals*	√		N/A
RQ4 Enforcement*	×		√ (qualified yes)
H4 Enforcement*	×		N/A
RQ5 *Probability of Detection	√ (qualified yes)	√ (qualified yes)	√ (qualified yes)
H5 Probability of Detection	×	×	N/A
RQ6 Tax Awareness	×	√	√
H6 Tax Awareness	√ (accepted in part)	√	N/A

It is evident from an examination of the matrix that there was a convergence and gathering of results under the penalties head. Along with qualified support from the interview findings and regression results, there was strong support from the chi-square tests. Overall there appears to be a consensus amongst this group of taxpayers that penalties (including severe penalties –imprisonment) can be influential upon compliance behavior.

The perception of fairness of the tax system did not appear to have a significant impact upon compliance behavior in the general population sample, as shown by the divergence of results in the matrix. While there was an absence of regression results, only qualified support at interview indicated that there was any relationship between fairness and compliance behavior. Again the many different facets of fairness may have also lead to the divergence of the results and lack of evidence. There appears to be clear support for a relationship between compliance behaviour and tax morals. Despite the absence of regression results, complementary results can be found in both the chi-square tests and interview findings. Taking peoples' views on face value is always difficult but consistent with the majority of the tax complying population, tax morals were found to be generally of a high standard. In contrast an examination of the matrix reveals that tax law enforcement was not generally influential upon compliance behavior. Other than some qualified support at interview there was no evidence to suggest that enforcement whether positive or negative would have any impact upon compliance levels.

There was a convergence in the results for the probability of detection, where qualified support was discovered in both the chi-square and regression tests and through the interview findings, of this variable having an influence upon tax compliance. Despite admitting to low audit and collection rates, compliant taxpayers generally felt that detection was possible. Overall there was some convergence of results with respect to tax awareness and compliance behaviour, particularly with respect to the statistical tests. This was the opposite finding to those in the evader group. Tax awareness of both general and specific issues was evident despite the statistical tests being incapable of picking the subtle differences in tax awareness/knowledge. Compliant taxpayers were found to generally have a good understanding of tax issues overall.

SUMMARY AND CONCLUSIONS

Non-compliant taxpayers

Consequently, based on the findings of the two components of the research, the following conclusions can be drawn with respect to the research questions posed to non-compliant taxpayers. A clear result from the research is that perceptions of tax fairness did impact upon the behaviour of non-compliant taxpayers,' confirming a positive response to RQ2 and accepting H2. This finding is consistent with the findings of other studies – Wallshultzzy, Wearing and Headley (1997) regarding the impact of fairness perceptions upon compliance behaviour. The tax morals of non-compliant taxpayers were also influential upon their behaviour according to the survey results, but were more qualified with respect to the interviews. This is not surprising given the cohort

of taxpayers examined but taken on face value these findings are supported by the literature-Smith (1990). These taxpayers fell into the category of intrinsic taxpayers- Torgler and Murphy (2004), where their weaker values and morals influenced their non-compliant behaviour. Overall on balance, the answer to RQ3 was positive and H3 was accepted.

With regards to enforcement, overall the results indicated to a lesser degree that it was influential upon the behaviour of non-compliant taxpayers. In particular, ineffective enforcement by the ATO to tackle the cash economy and offshore evasion was found to be a factor upon voluntary compliance. Other studies have reported similar findings-Mason and Galvin (1984). Consequently, RQ4 was confirmed and H4 accepted. Following on from the issue of enforcement is the issue of the probability of detection. Results were mixed and somewhat inconclusive, however overall it appeared that taxpayers felt there to be a low probability of detection. This will be of a concern to the ATO who perceive the audit function as a vital component of the self- assessment system as evidenced in prior studies-Tittle and Logan (1973). Consequently RQ5 was denied while H5 was accepted in part.

It was evident from the findings that penalties per se were generally viewed as being ineffective in influencing compliance behaviour. It should also be noted that although a specific deterrent may have been achieved for non-compliant taxpayers, the general deterrent effect of penalties was inconclusive-Mason and Galvin (1978). Likewise, results suggest that penalties should be used in combination with other measures such as taxpayer education and services, (as a preferred penalty) in order to achieve greater compliance. Consequently, RQ1 was denied and H1 was rejected. Finally with respect to tax awareness/knowledge it was evident that taxpayers possessed some basic tax knowledge although it was inconclusive as to whether it impacted upon their compliance behaviour. What was clear in interviews, was that this cohort of taxpayers, were aware of the tax evasion/tax avoidance distinction and were willing to push the boundaries of the law as has been discovered in prior studies- Eriksen and Fallen (1996). Nevertheless, RQ6 could be neither confirmed nor denied, while H6 neither accepted nor rejected.

Complaint taxpayers

Based on the findings of the two components of the research the following conclusions can be drawn with respect to the research questions posed to compliant taxpayers.' It is clear from the study that the perceptions of tax fairness did not impact upon the behaviour of compliant taxpayers,' confirming a negative response to RQ2 and rejecting H2. This finding is inconsistent with the findings of other studies- Tan (1998) regarding the impact of fairness perceptions upon compliance behaviour.

In contrast, the tax morals of compliant taxpayers were influential upon their behaviour according to some statistical tests and interview findings. This result is consistent with the literature and was expected- Smith (1990). Compliant taxpayers also fall into the category of intrinsic taxpayers who can be persuaded by institutional factors- Torgler and Murphy (2004). However, their stronger values and morals were more likely to influence their compliant behaviour than external factors. Overall the answer to RQ3 was positive and H3 was accepted in part. The results indicated that enforcement was not influential upon the behaviour of compliant taxpayers. Similar to evaders, ineffective enforcement by the ATO to tackle the cash economy and offshore evasion was found to be a factor upon voluntary compliance. Other studies have reported similar findings-Mason and Galvin (1978). Consequently, the answer to RQ4 was negative and H4 was rejected. Following on from the issue of enforcement is the issue of the probability of detection. Results were consistent across all components of the research indicating that compliant taxpayers generally felt that detection was possible with some reservations. Consequently the answer to RQ5 was a qualified yes while H5 was accepted in part.

With the focus of this study upon the penalties for non-compliance, it was evident from the findings that penalties per se were generally viewed as being effective in influencing taxpayer behaviour in the general population. This was qualified at interviews to some degree as other deterrent measures such as taxpayer education and services, were also suggested ought to be used in combination with penalties in order to achieve greater compliance. Nevertheless, the answer to RQ1 was yes and H1 was accepted. Finally with respect to tax awareness it was evident that compliant taxpayers possessed a basic tax awareness that did impact upon their compliance behaviour. The degree of tax knowledge and awareness varied between taxpayers in the sample but was nevertheless evident. Consequently, the answer to RQ6 was a yes while H6 was accepted in part.

Tax policy Implications

The key finding from the study is that the ATO and Australian government needs to improve the fairness of the tax system in order to positively influence the behaviour of non-compliant individual taxpayers. This has generally been supported by the literature- Hite and Roberts (1992). Specifically the ATO needs to address the issues of both vertical and horizontal inequity, but more so, the problem associated with taxpayers legally avoiding payment of their fair share of tax. This perception amongst the taxpaying community has the potential to seriously damage the revenue. While penalties were perceived to have minimal impact upon the compliance behaviour of taxpayers, there was a clear message that the penalties should be supported by other preventative measures such as, educational programs-Hite (1997). In particular a suggestion was made that the actual levels of penalty may be made more transparent on public literature and in the tax return itself. This would assist in providing a general deterrent for potential tax offenders while educating compliant taxpayers.

Unfortunately, the limitations of the research include the lack of other compliance and demographic variables employed herein and that the number of interviews, somewhat limited the value of the qualitative element. However, these considerations are being taken up as part of this continuing research. As further data is gathered and analysed, hopefully the reasons for taxpayers' responses and attitudinal changes can be more closely explored. This should in turn result in improving the revenue authority's tax compliance strategies and targeting of certain taxpayer groups.

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CURRENT TRENDS IN MANAGEMENT DEVELOPMENT: A SOUTH AFRICAN PERSPECTIVE

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ABSTRACT

The South African public sector has a strong desire to ensure a highly knowledgeable and well-trained public sector workforce capable of and committed to ensuring the well being of its citizens. This paper seeks to investigate the relevance of the management development programmes currently offered to the public sector workforce, with a reference to senior managers. The research is done in the form of the case study method focusing on the Executive Development Programme offered by PALAMA and the Municipal Leadership Development Programme offered by the LOGOLA. The objective of this paper is to identify the current trends in management development and to propose recommendations for enhancing the quality of management development programmes to senior managers in the South African public sector.

INTRODUCTION

The requirements of a developmental South African state as well as the ever changing needs of the public necessitate that public servants provide services efficiently, effectively and economically. The need for a knowledgeable, competent and skilled public sector workforce continues to be a priority in South Africa. For this reason, the South African government initiated strategies which focus on human resource development through specific management development programmes.

This paper seeks to investigate the relevance of the management development programmes currently being offered to the South African public sector, with a specific reference to the management and leadership development programmes targeting the senior management service (SMS). The Public Administration Leadership and Management Academy (PALAMA) offers the Executive Development Programme which was developed based on the core competencies for senior managers as conceptualised by the Department of Public Service and Administration. The Local Government Leadership Academy (LOGOLA) provides for the Municipal Leadership Development Programme aimed at enhancing the leadership skills of senior officials in local government.

The paper will firstly focus on the theoretical conceptualisation of management development. Secondly, the legislative context within which management development is implemented in the South African public sector will be described. Thirdly, an analysis of the management development programmes currently offered to senior managers will follow and in conclusion, recommendations will be made to enhance the impact of management development aimed at the senior management service within the South African public sector.

CONCEPTUALISING MANAGEMENT DEVELOPMENT

Management development is an integral part of human resource development, which according to Storey (2001:6) relates to human resource management as a distinctive approach to employment management which seeks to achieve competitive advantage through the strategic development of a highly competitive and capable workforce, using an integrated array of cultural, structural and personnel techniques. Cascio (1998:2) asserts that human resource management is the attraction, selection, retention, development and use of human resources in order to achieve both the individual and organisational objectives. It is vital to highlight that one of the functions of human resource management is the development and training of employees within the organisation in order to achieve the organisations objectives.

Human resource development is the strategic approach to investing in human capital (and thereby acknowledging that all human resources, but specifically senior managers, are essential resources to the effective and efficient functioning of the public organisation). Price (2004:554) states that human resource development encompasses career building and training initiatives with a view to capacitating the employees in an organisation with the necessary skills to respond to current and future needs that might arise within the organisation. Within human resource development is an aim to create a sustainable pool of employees from where the organisation can internally fill positions that may arise in the organisation and specifically in managerial positions. Thus, the emphasis on management development.

It is important to argue that management development provides a two fold advantage for both the organisation and the employee. Firstly, the organisation can ensure that a sustainable pool of leaders and managers will be available, capable and committed to fulfil future organisational requirements. Secondly, the employee, through participation in management development programmes, is equipped with the knowledge, skills and abilities that will enable him/her to carry out his/her function while also fulfilling his/her own ambition need. Specifically, for senior managers in the South African public sector, the duality which management development addresses is essential for cadre development and retention.

From the above can be deduced that management development is an integral part of human resource development as it is the process through which managers obtain the necessary experience, skills and attitudes to become or remain successful leaders (Erasmus, 2003:239). Within the context of the South African public sector management development ensures the establishment of a senior management service capable of addressing the needs of its citizens, while ensuring that their organisations function effectively and efficiently.

LEGISLATIVE FRAMEWORK SUPPORTING MANAGEMENT DEVELOPMENT

The Constitutional mandate for management development stems from Section 195(1) of the *Constitution of the Republic of South Africa, 1996*, which stipulates that public administration (as it pertains to all government organisations) should be development-oriented. The implication is that the focus of management development is aimed at enhancing the competencies of those responsible for ensuring the well being of all South African citizens. Furthermore, public administration should ensure good human resource and career management practices, which justifies the management development investment in senior managers. Ultimately, the *Constitution of the Republic of South Africa, 1996*, argues for the economic, effective and efficient use of all resources, which include human resources. The deduction is made that the South African public sector has the Constitutional obligation to ensure that management development enhances organisational success and employee satisfaction.

In 1997 the South African government promulgated the *White Paper on Human Resource Management in the Public Service*, which asserts that people are the public sector's most valuable asset and should be treated as such. *The White Paper on Human Resource Management in the Public Service, 1997*, envisions a public sector workforce which will be competent, well-managed, capable of and committed to delivering high quality services to all South Africans. The largest contribution of the *White Paper on Human Resource Management in the Public Service, 1997*, lies in its public sector obligation to ensure that those who devote their careers to the public sector should be awarded the opportunity to develop their competence. Thus, management development is emphasised and provided for as integral part of effective and efficient human resource management practice.

The importance of ensuring an appropriate human resource management direction for the public sector is undeniable. Only when an organisation puts into practice the words describing a competent, professional and committed human resource development system, will employees be able to master their own competence while acting as development resources to the benefit of their colleagues. What emerges from the *White Paper on Human Resource Management in the Public Service, 1997* is that human resource management will have to undergo a crucial change in order to realise the development of employees towards becoming service delivery-oriented, multi-skilled and multi-cultural while creating a flexible environment that considers both the individual as well as organisational needs.

The *Skills Development Act, 1998* (Act 97 of 1998), aims to devise and implement workplace strategies to develop and improve the skills of the South African workforce. A capacity building initiative created to enhance management development in government cannot function outside the scope of the *Skills Development Act, 1998*, (Act 97 of 1998). The above implies that both PALAMA and LOGOLA should integrate their management development programmes with the public sector development needs in order to ensure the appropriate answer to senior management competence requirements. For this reason, both management development programmes articulate with the competencies identified for senior managers in the public sector. Addressing these competencies should be formally recognised to address the educational requirements of senior managers.

With regards to the formal recognition of development, the *South African Qualifications Authority Act, 1995* (Act 58 of 1995), provides for the development and implementation of a national qualifications framework (NQF) designed to give national recognition to development/learning which takes place in order to encourage the enhancement of skills. These skills development programmes (including management development programmes) should be registered and accredited by the South African Qualifications Authority. Senior managers, already in possession of formal undergraduate or postgraduate qualifications, are enabled to augment their qualifications through programmes that have been accredited by the South African Qualifications Authority. Thus, management development programmes fulfil not only an individual purpose, but increases exposure to educational qualifications.

However, the development of senior managers in the South African public sector should take into account that management development programmes articulate to the appropriate NQF level and not be accredited to a qualification which would have no value or meaning to a senior manager. The *South African National Qualifications Authority Act, 1995* (Act 58 of 1995) prescribes guidelines for determining the NQF level of qualifications, as is depicted in the table below.

Table 1: NQF levels and corresponding educational qualifications

NQF	BANDS	QUALIFICATIONS
8	Higher Education and Training	Doctorates and Research Masters
7	Higher Education and Training	Honours: postgraduate diplomas and certificates
6	Higher Education and Training	First three year degrees and diplomas
5	Higher Education and Training	Two year diplomas and occupational certificates
4	Further Education and Training	High School/NGO/College certificates/Grade 12
3	Further Education and Training	School/NGO/College certificates
2	Further Education and Training	School/NGO/College certificates
1	General Education and Training	Grades 4-9 ,Adult Basic Education and Training levels 1-4

Source: National Treasury. 2007. Guidelines for Municipal Competency Levels: Other Senior Managers. Available from http://www.finance.gov.za/legislation/mfma/reg_gaz/Guidelines%20for%20Other%20Senior%20managers%202022007.

From the above can be argued that taking into account the diversity in qualifications available to senior managers implies that management development should take cognisance of the NQF level and ensure that programme content correspond not only to the functional need of senior managers, but also to the educational requirements set through the NQF. The legislative framework for management development makes provision for human resource management practices which, firstly, encourages a development-oriented public sector workforce aimed towards improving individual skills and competencies. Secondly, management development programmes articulate with the educational requirements prescribed by the NQF, which means that those who participate, including public sector senior managers, receive formal and accredited qualifications. Thirdly, management development programmes to senior managers address a functional competency which ensures the more effective and efficient functioning of the senior manager, while also enhancing his/her educational qualification. Proving

the above arguments will be done by describing what management development within the South African context represents.

MANAGEMENT DEVELOPMENT IN SOUTH AFRICA

Senior managers, as leaders in the public sector, are expected to direct service delivery. Direction cannot be achieved without providing access to senior managers to increase their understanding of the current public sector environment. As was argued earlier, the two-fold advantage of management development lies in addressing both an organisational as well as individual ambition need. Serving both the functional and well as the development needs of senior managers will assist in the creation of a sustainable pool of appropriately trained and experienced managers for the South African public sector. This has been the capacity focused drive of the South African government.

The South African government established PALAMA and LOGOLA as mechanisms to ensure a fully capacitated and skilled workforce. PALAMA was first established in 1999 as the South African Management Development Institute (SAMDI) as a Schedule 1 Department in terms of the *Public Service Act, 1994* (Proclamation 103 of 1994) and Section 197 (1) of the *Constitution of the Republic of South Africa, 1996*. During 2008 SAMDI was renamed PALAMA to coincide with a new direction in public sector training and development. PALAMA was created with the objective of developing management and leadership skills across the public sector, making it an institution responsible for training and development for the entire South African public sector.

The transition from SAMDI to PALAMA began in 2005 when Cabinet noted with concern that SAMDI did not have the adequate capacity for tackling the training and management development demands of the South African Public Service. The Ministerial Committee appointed by the then Minister of Public Service and Administration concluded that SAMDI was too inflexible and bureaucratic and competed with service providers with whom it should have been collaborating (PALAMA., 2008:11) The transition from SAMDI to PALAMA included among others firstly, a change from being a provider of training to being a facilitator of training, secondly, a move from being a competitor in the provision of training to partnering with other service providers and, lastly, to extend its coverage from selective to comprehensive or massified training and development.

The purpose of PALAMA is to assist in build a capable public sector through providing and coordinating extensive opportunities for leadership and management development of public sector managers and executives (PALAMA 2008:10). It is in this regard that PALAMA offers the Executive Development Programme to the senior managers, directors and chief directors. The aim of the Executive Development Programme is to equip senior managers with the skills and competencies required to perform effectively in their day-to-day operations. The Executive Development Programme is a core component of the Presidential Strategic Leadership Development Programme. The Presidential Strategic Leadership Development Programme was established in 2000 and was targeted at Directors and Deputy Directors. The PSLDP elevated to the Executive Development Programme in 2005 (Lean & Seale 2008:10). The EDP is competency-based development and is managed by a consortium of tertiary institutions. It is grounded in the competency requirements for the Senior Management Service and the Leadership Development Management Strategic Framework designed by the Department of Public Service and Administration. The Leadership Development Management Strategic Framework is a strategy for the development and management of senior managers in the public sector. It is in this regard that the Executive Development Programme was developed.

Although the aim of the Executive Development Programme is functional in nature, the facilitation and delivery of the programme encourages senior managers to create learning networks across sector or organisational boundaries, thereby ensuring that the development need of senior managers to interact and share, is addressed. The Executive Development Programme is facilitated through a number of tertiary institutions who were appointed as partners with PALAMA in the delivery of the Programme. Again, diversity and interaction is encouraged through the use of multiple facilitators from various tertiary institutions and backgrounds.

Participation in the Executive Development Programme is focused on directors and chief directors in the South African public sector. A further requirement for entry in the Executive Development Programme is that the

senior managers must be in possession of a Bachelors degree or equivalent qualification. In cases where applicants are not in possession of a Bachelors degree or equivalent qualification, they can pursue Recognition of Prior Learning options through the relevant tertiary institution prior to commencing with the programme (PALAMA 2010).

Senior managers that successfully completed the programme will qualify for the Postgraduate Certificate in Executive Leadership from a number of tertiary institutions (PALAMA partners). Accreditation on National Qualifications Framework Level 7 is currently pursued through the same tertiary institutions. The argument that management development programmes should correspond to the appropriate NQF level is also emphasised even if the public sector does not specify any formal qualifications required for the position of chief directors or directors. However, in the public sector vacancy circular published by the Department of Public Service and Administration in April 2010, postgraduate qualifications were required for executive managers at chief director level (Department of Public Service and Administration 2010). The argument that management development should fulfil an educational need should be taken into consideration. Given that persons cannot apply for a chief director post should they not possess a postgraduate qualification implies that a management development programme pitched at an Honours or Masters level might not be of interest to senior managers. This would have implications for, firstly, understanding the current public sector environment and, secondly, retaining and creating a credible pool of senior managers. This paper questions the relevance of providing management development programmes that are below or on par with qualifications that senior managers already have.

Challenges that have been noted in terms of the implementation of the Executive Development Programme include the limited number of participants that PALAMA aims to train and take through the Programme. The Programme was expected to reach 720 senior managers annually, in comparison to the approximately 10 000 members of the Senior Management Service currently in the Public Service, excluding local government. In 2008/2009 only 53 candidates completed the Presidential Strategic Leadership Development Programme (PALAMA, 2008:36-37). A further challenge was the challenge to manage the quality deliverables by contracted higher education institutions. Management development is not without its challenges, but unless the majority of senior managers complete the Programme, the initiative cannot achieve its developmental and functional intent.

The LOGOLA promotes a management development programme that has been conceptualised, formulated and sponsored by the Department of Cooperative Governance and Traditional Affairs, previously known as the Department of Provincial and Local Government. The LOGOLA was launched in 2007 with an aim to accelerate and improve service delivery to communities and strengthen the sustainability of local government by enhancing leadership competencies of local government elected and appointed officials.

The Academy was established, firstly, on the informed needs of the communities and the role that senior managers play in addressing these needs. Secondly, the *White Paper on Local Government, 1998*, reinforced by the *Local Government: Municipal Systems Act, 2000* (Act 32 of 2000), dictate the need for new skills and ways of working by appointed officials, with specific reference to the need for ongoing consultation, the prioritising of community needs and the encouragement of participation in local government (LOGOLA, 2007: 18-19).

It is vital to state that the LOGOLA was established in order to capacitate local government councillors and other elected and appointed officials with specific leadership competencies. These competencies are necessary to achieve the aims of a developmental local government and promote improved service delivery.

Hangana (2007) states that the LOGOLA is tasked with developing relevant and focused programmes that are aimed at empowering elected and appointed officials. The Municipal Leadership Development Programme offered by the Academy constitutes four skills programmes equalling 38 credits, namely emotional intelligence (8 credits), effective communication (10 credits), problem-solving and analytical thinking (12 credits) and communal knowledge management (12 credits). It should be mentioned that a postgraduate qualification constituted between 150 credits on Honours level to 180 credits on Masters level.

Furthermore, this Municipal Leadership Development Programme constitutes the core of what is registered with the South African Qualifications Authority (SAQA) as the National Certificate in Leadership Development positioned on level 4 of the NQF. Level 4 equates to a high school qualification, although SAQA states that the

Certificate is to 'enable qualifying learners to apply leadership competencies to ensure excellence within local government.

In terms of the local sphere of government, there exists no requirement that stipulates specifically the formal qualifications that a municipal manager, who is the senior manager in local government, is required to have in order to qualify for employment in a municipality. However, the trend within the local government sphere has been that the municipal manager also obliged to be the chief financial officer be in possession of a postgraduate qualification in order to qualify for employment in a senior management position. Thus, a minimum qualification positioned at NQF level 7. It can therefore be argued that municipal managers will have a postgraduate qualification. Public sector vacancy circulars also state that a postgraduate qualification serves as an added advantage for employment.

The academic value of the Municipal Leadership Development Programme is questioned. If management development is meant to serve a functional and developmental need, then providing leadership development pitched at a high school level to senior managers in possession of a postgraduate qualification will lead to non-participation and failure of the Programme. Even though the Municipal Leadership Development Programme provides training on core leadership skills necessary for municipal managers to execute their day-to-day operations, however, the educational value that this qualification will prevent the transfer of these valuable competencies to those who need it the most – the senior managers responsible for providing direction and vision.

Willingness to participate, especially when already over-extended and over-worked senior managers as asked to participate, can only be ensure when they are motivated by the functional and educational value of the management development programme. Robbins (1998:309) defines motivation as “the willingness to do something and is conditioned by this action’s ability to satisfy some need for the individual”. Chung (1977: 4) states that “motivation determines what an individual will do”. Motivation is a key to individual and well-being and organisational success. With regard to management development senior managers will participate in management development programme if they are motivated to do so. The willingness to participate in management development is derived from the senior managers seeing the significance of this development to both their individual well-being (their own development need) as well as the success of the organisation (the functional value of the programme).

Motivation of senior manager to participate in management development implies that training should not be provided because training can never be seen as a waste. This is simply not relevant to the content and context of the South African senior public manager. Senior managers will only attend management development programme is the value thereof relates to their own need for growth and development.

RECOMMENDATIONS FOR EFFECTIVE MANAGEMENT DEVELOPMENT PROGRAMMES

If one is to acknowledge that management development should add functional value to the organisation itself, then determining the educational value of management development is where the challenge lies. According to Horwitz (1996:11) the key factors that drive management development can be attributed to the following:

- international competitiveness and awareness which causes senior managers to reassess how they manage their organisations;
- changing values which forces senior managers to build on commitment and not control; and
- new knowledge and information impacting on the management of employees and their skills.

Should these factors not be taken into account, Horwitz (1996:11-13) states that management development will negate its original intent, which is to ensure effective career management and retention – two areas of critical concern to the South African public sector. Fourie (2004:493) maintains that management development in the South African public sector has changed from being action-oriented to being results-oriented. The focus of development is not on the design of delivery of management development programmes but on aligning between individual learning needs and competency requirements to organisational strategy. The purpose of development is to:

- improve performance;
- maintain performance;
- prepare for new job challenges on higher levels; and
- apply competencies.

Thus, in order to answer the question of what necessitates management development, Long (2004:701) states that a balance should be created between developing individual talent and adding value to the organisation. Managers will attend these management development interventions to gain new knowledge and models for managerial behaviour, to interact with the experts (facilitators and/or academics) and to interact with other participants. Management development is highlighted as a vital component of the strategic development of the organisation, specifically when taken together with the organisation's emphasis on continuous learning and improvement. Ready *et al.* (1994:65) state that an important prerequisite to management development is the realisation of commitment that is needed from both the participants as well as their employers. Horwitz (1996:14), based on the management development research of authors such as Human (1991) and Kiggundu (1991), proposes the following necessary attributes for management development, including *inter alia*:

- line management ownership and accountability to facilitate learning transfer;
- research and publications; and
- monitoring and follow-up

Thus, management development is a necessity if an organization is to stay responsive and competitive. The paper argues that in the implementation of management development programmes specific factors have to be taken into cognisance in order to ensure effective implementation of senior management development programmes. Firstly, the identification of the competencies set out in the competency frameworks of senior managers in the public sector and local government managers. Secondly, the qualifications that senior managers who are currently employed in the public sector currently possess as well as the qualifications that are required for directors, chief directors and municipal managers. By identifying these qualifications the providers of management development programmes will be able to ascertain the NQF level of the qualifications that will add value to senior managers who participate in these programmes. Lastly, providers of management development programmes should link the competency framework requirements as well as the formal qualifications that senior managers have in order to provide management development programmes that are relevant and applicable in terms of both the work and academic value that they provide.

CONCLUSION

The development of human resources in the South African public sector is an issue of great concern. Senior managers as the agents of change in all three spheres of government are required to be leaders and change agents in order to drive the transformation of South Africa as a developmental state. The training and development of senior managers therefore is vital to drive this transformation, this paper aimed to analyse the programmes currently offered to senior managers in South Africa and to provide recommendations for effective implementation of management development programmes.

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FEMALE LEADERSHIP: THE ANSWER TO POOR SERVICE DELIVERY IN SOUTH AFRICA

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ABSTRACT

South Africa has made significant gains in the representation of females in both the national and provincial government since inception into the international arena in 1994. Local government is the most important sphere of government, as it is at the coalface of service delivery and the closest sphere to the people. Sadly, service delivery in most municipalities does not meet the basic requirements and the real problem lies in the lack of leadership in decision-making and leadership commitment. What is needed is a uniquely effective leadership style that responds to the needs and demands of the public. Such a style of leadership is known as transformational leadership and most apparent in females, as the paper will proof.

INTRODUCTION AND BACKGROUND

In the aftermath of the United Nations Fourth World Conference on Women, held in Beijing in 1995, the issue of 'women's leadership' was placed on the agenda. The assumption underlying these discussions was that if more women were involved in high-level decision-making, in particular in politics, states would be governed more fairly and efficiently, and in addition would make better and steadier progress towards achieving the goals of the Beijing Platform for Action (Antrobus 2000:50). This milestone declaration paved the way for the change in the status of women in leadership positions around the world.

It is against this backdrop that the history of South African women dramatically changed. Not only did it mark the beginning of a new era, but it was also seen as the rebirth and emancipation of women. In search for gender equality and the non discrimination of women the South African government formulated numerous legal frameworks to support the call for equality, and specifically in issues of gender in local government. Nationally such policies include the Constitution of the Republic of South Africa, 1996, the White Paper on Local Government, 1998, the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998) and the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000). Internationally such policy frameworks include the Convention on the Elimination of All Forms of Discrimination (CEDWA), the Beijing Declaration and its Platform for Action 1995 and the SADC Gender Development Declaration, the Millennium Development Goals (MDGs) and the United Nations (UN) Charter.

Along with the aforementioned declarations and laws promulgated, the South African government has been praised for its efforts and commitments in advancing gender equity throughout all spheres of government. South Africa is seen as a beacon of good equity practice around the world.

Not only did the representation of women at national sphere increase during Nelson Mandela's administration from 27 % in 1994 to 32 % in the year 2000, but the government has made numerous achievements worth mentioning; such as the inclusion of women as political representatives in all spheres of government, participation of women in the policy formulation process and an increased number of social service policies that benefit the disadvantaged population of South Africa of which women constitute the majority.

Nelson Mandela's successor, Thabo Mbeki was also particularly committed to gender equality and empowerment of women and throughout his term, a substantial number of women were appointed in high-ranking positions. A major triumph that Thabo Mbeki was applauded for by the national and international

organisations in the road to achieving gender equality was the appointment of the country's first female Deputy President in 2005. This was seen not only as a victory in the fight against gender inequality, but also as government's endorsement of women's leadership capacity. However, putting women's issues on the policy map remains an uphill battle. Women in Parliament find that even if they can somehow accommodate themselves to the male culture of the institution, the enormous task of addressing gender issues across the policy spectrum is beyond the capacity of the few women who take up these issues (Robinson, 1995:7)

On the local government front, women's representation has also grown substantially, however, not to the same degree evident in national government. Representation increased from 29.6 % in the 2000 local elections to reach 40 % after the 2006 elections. When closer inspection is made regarding the statistics on women in local government, a disturbing observation is made, there are a total of 7990 local government councillors. Of those, 5699 (71%) are men and 2323 (29%) are women (South African Local Government Association (SALGA) 2003 in Bentley, Cherry & Mafhuny 2003:7)). This paints a grim picture especially when one considers the significance of local government for women and for the implementation of development priorities. The relative absence of women's representation and organising at this sphere could be a serious hindrance to the advancement of gender equality in South Africa (Robinson, 1995:7)

While the above SALGA statistics may seem promising and close to the 30% goal set by the Beijing Declaration and Platform for Action (PFA) and the Southern African Development Countries (SADC) Gender and Development Declaration, it is relatively startling especially when one considers that women constitute 60% of the electorate in South Africa. Surely, if 60% of the electorate is women, one could argue for at least 50% representation in all three spheres of government. This is argued against the requirements from the Constitution of the Republic of South Africa, 1996, which has been labeled as one of the most comprehensive and broad human rights documents in the world.

Despite the South African Government's commitment in the formulation of gender sensitive policies to advance, promote and encourage women's participation, translating these gender sensitive policies into reality remains a huge problem. What is needed is a responsible and capable official (at the local government sphere) that will ensure that all affected officials act in a collective manner to achieve the predetermined objectives of the policies. This official will subsequently account for the progress, failure and success of such policy implementation (Mfene 2008:208).

The argument is that females possess characteristics innate to transformational leadership. Females have the leadership competencies needed to implement the principles specified by the White Paper on Transforming Service Delivery which calls for competencies such as sensitivity when dealing with societal issues, the ability to multi task and the ability to make good decisions based on inclusivity. This is shared by Rosener (1990) in Oshagbemi & Gill (2003:2) who found that, based on self reports, men tended toward an authoritative leadership style, while women tended towards a transformational leadership style, relying heavily on interpersonal skills. Transformational leaders have the ability to make the necessary successful changes in the organisations' vision and mission, its goals, strategies, structure, culture and reward systems. Such leaders inspire their subordinates through their own personal vision and energy to have a major impact on the organisation (Mfene 2008: 209). Thus, the argument that service delivery necessitates female leaders. However, it is important to understand the service delivery predicament evident in the South African society.

WOMEN AS TRANSFORMATIONAL LEADERS

Women's transformative style and greater use of contingent reward as well as their lesser use of laissez-faire style should enhance organizational effectiveness. Eagly and Johannesnen-Schmidt in Oshagbemi and Gill (2002:2)

There is an expanding body of literature that suggests women have political approaches and societal preferences that differ from those of men. Women have a positive impact as transformative leaders at the local government sphere. The nature of their leadership is defined by the issues that they promote, their style of leadership and their impact on equality.

As transformational leaders women have a greater sense of social issues and the well being and welfare of their communities. Their priorities are more likely to centre on housing, safety, childcare, clean water, sanitation, rural development, poverty alleviation and community development. Their style of leadership is more people orientated, focuses on the real issues rather than personalities, and encourages participation and they act as change agents. Finally, women will have an impact on equality, thus encouraging more women to participate politically, promote gender equality policies, they improve the status of women by promoting policies, projects and funding development, that increases the understanding of the conditions of women and children (Drage 2001:12)

Such findings have been shared by Gilligan (1982), who expresses the differences between the leadership styles, management and behaviours of women and men. The fundamental assertion is that women and men interpret social reality differently, leading to the conception of distinctly male and female voices. Thus, the female voice embraces the ideals of responsibility, caring and interconnectedness, while the male voice embraces adherence to rules and individualism (Gilligan 1982:172-173). Studies done by Rosener (1995:11-13) have found that women show a pattern of leadership that differs from the top-down controlling style often associated with men. They encourage participation, share power and information more readily, enhance the self worth of those around them and tend to energize others. In another study of managerial styles, Helgesen (1990:45) found that women executives tended to see themselves as being in the middle of things. They prefer to be in the web of inclusion and not at the top. Further characteristics show that women exhibit a high level of intuition about people, an interest in offering more praise to employees, a greater interest in giving orders kindly, a greater sensitivity to subordinates' needs, a higher level of compromise and conciliation and a different approach to teamwork (Fox and Schuhmann 1999:232).

Kabacoff (1998) in Appelbaum, Audet and Miller (2002:7) established women to be more highly rated on empathy (demonstrating an active concern for people and their needs, forming close , supportive relationships with others) , and communication (stating clear expectations for others, clearly expressing thoughts and ideas, maintaining flow of communications) than men. Women are also more highly rated on people skills. However, they are not seen as more outgoing or more co-operative in their leadership styles. Contrary to expectations, women tend to achieve a higher score on a leadership scale measuring an orientation towards production and the attainment of result. Whereas men tend to attain a higher score on scales assessing an orientation toward strategic planning and organisational vision. In conclusion, women tend to score higher on people-orientated leadership skills, whereas men score higher on business-orientated leadership. Overall, bosses see men and women as equally effective, while peer and directed assessment rate women as slightly higher than men.

Fox and Schuhmann (1999:231) evaluated studies of elected women officials in state legislators and found women place high priorities on policies that concern women, family and children, while male legislators focused on business and economic legislation. Furthermore, women legislators were much more task-orientated than their male counterparts. Yet, Gasela (2007) points out that there is no perceived difference between men and women holding political leadership positions and moreover there is no trait or quality that a man has that a woman can never have. However, gender activists have argued that women's participation in local government is likely to lead to more efficient and effective delivery of services, which will have a positive impact on the democratic system as a whole. This is aligned with women's understanding of the needs of households can be translated into knowledge for local planners and delivery agencies, leading to a virtuous circle of gender-sensitive policies and increased and better valued participation of women.

Women should be placed in political leadership positions as they bring specific qualitative differences to municipal planning and priorities. These qualities evident in the transformational leadership style are most apparent in women, as indicated by Pounder and Coleman (2002:2) who argue that women provide vision and a sense of mission, instill pride, gain respect, and trust and increase optimism. The leader stimulates followers to rethink old ways of doing things and to reassess old values and beliefs. This is echoed by Wilson (2004:8) who states that the core of what women bring to leadership is a tendency toward greater inclusiveness, empathy, communication up and down hierarchies, and focus on broader issues and makes government stronger.

GAP (2000:7) highlights that women are more compassionate figures, more emotionally aware than their male counterparts in government and that quality brings a desirable perspective to politics. Moreover, with all the challenges facing the world at the moment (HIV/AIDS, war, the economic meltdown, poverty) men do not have

to give up or go at it alone. All they have to do, according to Wilson (2004:5), is share power and let women help, as equals. Women can and must help run the world.

In approaching the issue of gender inequality in decision making structures, the government needs to be cautious that it doesn't put women in power simply to make up the number, but should rather see women as having different and crucial approaches to problem solving. Their priorities and consequently different leadership styles and traits can benefit service delivery, because women understand and are closer to the issues that affect the community. Lowe-Morna (2009) in Potter (2009) firmly agrees to this when she puts forward that the goal is not simply to bump up the numbers of women leaders for the sake of higher numbers. It is rather to ensure that women's values are heard on important issues such as HIV/AIDS and domestic violence. The above illustrates the qualities and values which women find most important. These values should be reflected in the manner in which services are conceptualised and delivered. Ensuring the appropriate participation and inclusivity in municipal planning should have a positive impact on the delivery of such services to communities.

The above-mentioned authors have provided practical evidence on the different leadership styles found between men and women. Their research stems from women acquiring a transformational leadership style which allows women to be more responsive to the needs at hand in the local sphere of government as compared to the transactional and *laissez-faire* leadership styles common in men.

Women's leadership style may be different compared to men but is not at all likely to be less effective. It has been proven that women's transformational leadership style is more effective within the context of team based, consensually driven organisational structures that are more prevalent in the local sphere of government where problems with service delivery are rampant and provide a continuous hindrance to the effective and efficient functioning of public organisations.

THE SERVICE DELIVERY QUANDARY IN LOCAL GOVERNMENT

Local government is the most important sphere of government, as it is at the coalface of service delivery and the closest sphere to the people. This sphere has a Constitutional obligation to deliver a variety of services that include basic essential services such as, water, sanitation, electricity and housing especially to the poor and deprived communities.

Sadly, service delivery in most municipalities does not meet the requirements described in the White Paper on Transforming Public Service Delivery 1997 (*Batho Pele*). This landmark document was established as a response to high expectations, which accompanied the emergence of a democratic South Africa (Nengwekhulu, 2009:348). The White Paper (1997:15) provides the following eight service delivery principles:

- Consultation: citizens should be consulted in regard to the level and quality of the public services they receive, and, wherever possible, should be given a choice of the services that are offered.
- Service standards: citizens should be told what level and quality of public services they will receive so that they can be made aware of what to expect.
- Access: all citizens should have equal access to the services to which they are entitled.
- Courtesy: citizens should be treated with courtesy and consideration.
- Information: citizens should be given full, accurate information about the public service they are entitled to receive.
- Openness and transparency: citizens should be told how national and provincial departments are run, how much they cost, and who is in charge.
- Redress: if the promised standard of service is not delivered, citizens should be offered an apology, a full explanation and a speedy and effective remedy; and when complaints are made, citizens should receive a sympathetic and positive response.
- Value for money: public services should be provided economically and efficiently in order to give citizens the best possible value for their money.

These eight principles are to be honoured by all public officials to ensure that social values are recognised and implemented. The implementation of these values resides on attributes, which again are more evident in women, including empathy, participation and collaboration. The argument can be made that women and men having different approaches to issues at, for instance, the local sphere of government and a greater need exists for women's maternal instincts that contribute to greater community involvement in communal issues (GAP, 2000:7).

However, as expected translating these principles into practical reality has not been an unproblematic task as is obvious from the service delivery turbulence in recent months. South Africa has been marred by never ending service delivery protest actions across all the provinces. The service delivery protests have been blamed government for not keeping promises made during elections, lack of financial resources available to deliver the promised services, corruption and mismanagement within the administration and incapacity of municipalities to deliver on their Constitutional obligations.

There are a number of variables that contribute to the inefficient delivery of services. Naidoo (2005:103) identifies human resource and financial constraints, the lack of technical skills, the lack of co-ordination, ineffective intergovernmental relations (IGR) among the three spheres of government, ineffective policy implementation and the lack of effective monitoring and evaluation systems as the most important variables. Edwards (2009:48) blames the unrest on poor leadership resulting from a lack of vision and indecisiveness on important service delivery issues.

The regular recurrence of service delivery protest actions have affected the lives of women directly, as they carry disproportionate responsibility for social reproduction and the goods and services provided by local government have a direct bearing on their lives (Gasela 2007). Furthermore, women are more exposed and vulnerable to issues ranging from providing a free basic level of services like water and electricity to every household, creating jobs in communities where people live, working for social and economic development, building safety and security in the communities and fighting the spread of HIV/AIDS (Joseph, 2002:4).

The lack of satisfactory leadership at the local sphere of government has drawn attention to the need to transform leadership so as to change the direction at which government institutions at the helm of service delivery operate. A uniquely effective leadership style that responds to the needs and demands of the public is considered necessary, moreover a leadership style that will ensure the successful implementation of the eight *Batho Pele* principles. Such a style of leadership is known as transformational leadership and generally noticeable in women.

WHY IS EQUAL REPRESENTATION OF WOMEN IMPORTANT?

Overall, the proportion of women in legislatures is exceedingly low. The question is why and does it matter? Why should it matter; what difference does it make whether women are in legislatures and other institutions of governance or not? Ballington and Karma (2005:14)

The paper argues that transformational leadership is needed at the local sphere of government and that it is most evident in the leadership styles of women. Thus, the greater the representativity of women in local government, the more effective local government service delivery should be. For South Africa to attain economic and social stability and growth, it is vital that women's participation in local government keeps pace with the growth of a broader democratic and non-sexist culture. This is a sentiment shared by Wilson (2004:9) who highlights that gender equality is not only seen as the fair thing to do, but also as the only thing to do and that the future of the world depends on the leadership of women, not to replace men, but to simply work together with them.

The importance of female representation in decision-making structures in local government is rooted firstly, in women's constitutional right to political representation and participation and ignoring such a right would go against the principles of legitimacy, participatory democracy and justice. Secondly, women in local government act as role models to other women and demonstrate that it is possible for women to participate and make a difference. Thirdly, women are important agents for change at the local sphere, because of their intimate

knowledge of the local communities. Fourthly, women in local government are employees of the municipality and this often means that they are concerned with the working environment as far as it is conducive to female participation. And finally, women are more concerned with the common good, owing to the fact that they are more likely to be intimately involved in their communities (Bentley, Cherry and Mafhunye 2004:7-8).

The significance of local government for women and the implementation of developmental priorities mean that the relative absence of women's representation could be a serious hindrance to the achievement of equality in all corners of society. Women populate half the democracy and so they should occupy half the positions of leadership, to not only meet gender equality benchmark, but also because women provide a world of difference and bring much needed change that comes from their leadership style and approaches when compared to men.

Women are equipped with attributes required to deal with issues rampant at the local sphere. The traits needed to achieve the mandates as set by the government to ensure effective and efficient delivery of services, include the understanding of sensitive issues, being tactful, nurturing, expressive, valuing team work and group participation. Nevertheless, this cannot occur if women are not equally represented in the decision making structures of local government. Women today are still part of the majority that remains exposed to societal challenges like poverty, illiteracy, unemployment, social exclusion, environmental decay and sexual harassment. What is found in male dominated institution, such as in an under-represented municipality, is that the skills, work styles and characteristics of women are not always valued equally to those of men. There is still a strong emphasis on attributes such as competitiveness and control (GAP 1999:10).

This has called for a wealth of much needed change in society, especially towards the leadership attributes of men and the necessity for change that is offered by female leaders. For women in local government to move from the margins to the centre, a process involving inner and outer change is required. Inner change is what we believe we are capable of as women, not what society has taught us about our abilities. While outer change is what needs to change in the working environment and society at large (GAP 1999:10).

Yet, change does not occur in isolation, it must work with numbers. A single woman in charge will not make a big difference alone, but would merely serve as a token and thus has to prove she is a man enough for the job. Such change must be sweeping, and it will not be easy, especially when it comes to women's leadership. This is attributed to deep resistance with structural and emotional impediments burned into the cultures of our organisations, into our society (Robinson 1995:7).

The importance of securing numbers to lead so as to effect change cannot be emphasised enough and will ensure the women's agendas are positioned to cross the patriarchal corridors. The United Nations (UN Study 1992:107-108) reported that only when a minority group increases to about 30-35% will it become strong enough to influence the fundamental group culture and form alliances that can give it a significant impact on the whole. Thus, women's influence and leadership attributes and style can only have a positive effect on the policy processes of government when representation exceeds 30%. Presently the representation of women in senior management positions in local government (including mayor, municipal manager and councilor) is set at 30%. Thus, women should be able to ensure fundamental change, should government give them the opportunity and freedom to do so.

Oshagbemi and Gill (2002:2) highlight that the transformational leadership style of women is characterised by the ability to bring about significant change, not only in the organisation's vision, strategy and culture but also in its products and technologies. This style of leadership encourage inclusiveness, participation, collaboration and consultation; is more tolerant of different views and is people-orientated; places a higher emphasis on the importance of government communication with their communities and, most importantly, focuses on the issues at hand and not individual personalities, which in case of local government is service delivery (Drage 2001:12).

This paper argued that women's attributes as evident in their leadership style are better equipped to deal with issues at the local sphere of government. The local sphere of government has seemingly failed to tackle the basic service provision needs and demands of the society and to deliver upon their mandates. The equal representation of women in local government seeks to guarantee that woman's concerns and perspectives are taken account of in the initiation, formulation, implementation and evaluation of policy decisions and outcomes. Furthermore its assertion is encapsulated in several national and international acts and declarations ensuring that proper attention

is given to women's representation in decision making structures. Women in leadership positions promote participation, delegate, share power and information more readily amongst colleagues, enhance the sense of worth of those around them and are apt to uplift others within the organisation. This impact is shown in the transformative leadership style women possess which is based on teamwork, communication and acting as change agents to the benefit of society.

CONCLUSION

While the call for equal representation of women in local government may appear as gender stereotyping it may perhaps also be a useful strategy for signifying the importance of gender equality as an end in itself but also a way to generally improve the performance levels of local government in terms of service delivery. Unquestionably, women provide a wealth of much needed knowledge that should be capitalised on by local government. Women's managerial style's emphasises goal setting, encouraging inclusiveness, participation, collaboration and consultation with colleagues and promotes a more tolerant stance towards different views, is people orientated, empowering and focuses on mentoring subordinates. As a result local government organisations will be able to transform the way they operate especially when issues of service delivery and issues sensitive to women are to be considered. The only way to tackle the problems at the local sphere of government is by changing the leadership direction, and encouraging women to lead alongside men. This will undeniably foster positive results owing to women's hands-on approach to leadership and better understanding of societal issues.

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AN OVERVIEW OF THE COMPLEX FIGHT TO MINIMIZE MONEY LAUNDERING FOCUSING ON THE ILLEGAL AND UNETHICAL USE OF COMPANIES BY LAUNDERERS

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ABSTRACT

Money laundering presents global and national challenges to legislators considering that its use range from criminal syndicates to financiers of terrorist activities. Launderers are sophisticated, clever, well informed and quick to pinpoint loopholes created by poorly structured legislation that can be exploited to disguise the sources of the funding of illegal activities.

In recent years launderers used increasingly sophisticated combinations of techniques making it progressively more difficult to end laundering. These techniques involve the increased use of legal persons. Laundered funds are often used by launderers to acquire companies with the purpose to create a complex network of shell companies and trusts based in tax havens. Shell- and front companies are incorporated to protect the true identify of the laundering criminal. Companies over- and under invoice goods. They overstate or understate the quantity of goods shipped. Companies also misrepresent the quality or type of goods.

On international front the Financial Action Task Force is a leading inter-governmental body that endeavours to develop and promote national and international policies to combat money laundering. Their standards were endorsed by the United Nations Security Council. In South-Africa the Financial Intelligence Centre Act as amended by the Financial Intelligence Centre Amendment Act provides for the establishment and operation of the Financial Intelligence Centre and creates money laundering control obligations and regulates access to information.

In spite of the above actions, governments worldwide will have to commit themselves to consistently work together to fight money laundering or we just might lose the fight...

This is a theoretical paper and literature study as money laundering does not lend itself to empirical research.

INTRODUCTION

The first reference to the term “money laundering” appeared during the Watergate scandal. US President Richard Nixon’s “Committee to Re-elect the President” moved dirty campaign contributions to Mexico and then brought the money back via a company in Miami. A newspaper came up with the term *money laundering*.

Money laundering has been dubbed the “Achilles heel” of organized crime, for it compels mobsters to seek and involve businessmen and women with highly technical know-how and access to legal institutions to launder their plunder.

WHAT IS MONEY LAUNDERING?

Money laundering is the process of creating the appearance that large amounts of money obtained from serious crimes originated from a legitimate source. Usually there is either no paper trail - or too much paperwork. The accounts are regularly liquidated and all traces erased. If a launderer requires the proceeds to enter the formal sector, he can ensure that it does so at a stage when it has been laundered sufficiently and cannot be linked to unlawful activity anymore.

Money obtained by an illegal action is not, of itself, laundered money. The laundering offence comes from the attempt to conceal its source. The fact that the transaction itself was illegal is a separate offence.

MONEY LAUNDERING STAGES

Money laundering has three stages:

1. **Placement.** This is the introduction of the proceeds of crime into the legitimate financial market. This practice is known as smurfing or structuring, namely to spread big amounts of cash by depositing smaller amounts into various accounts at different banks to avoid scrutiny by regulators of law enforcement. Typically each of the smaller transactions is below the statutory limit that does not require the financial institution to file a report with a government agency. The term “smurfing” is derived from the image of the cartoon characters, The Smurfs, having a large group of many small entities.
2. **Layering** as a subsequent stage, serves to hide the source and ownership of the funds. This is the transfer of funds to other locations or financial institutions e.g. a shell company.
3. The final stage of money laundering involves **integrating** the funds into the legitimate economy as “clean” money.

HAWALA

Hawala is a specific form of an alternative remittance system. Alternative remittance systems (ARS) are operations to transfer money outside the formal banking system.

It is paperless and trust-based trade. Hawala works by transferring money through connections without actually moving it. These systems are used to evade exchange control restrictions and expensive foreign exchange transaction fees. Hawaladars usually have low overheads. Some operate by using a table in a tea shop as an office with no more than a cellular phone and a notebook as overhead expenses. The currency of choice for illegal transactions is the U.S. dollar.

ABUSE OF BUSINESS ENTITIES

Criminals often use business activities and formal and informal business enterprises to launder money. These business enterprises can be unincorporated e.g. sole proprietorships, business trusts and partnerships or incorporated e.g. companies.

Shell companies

Shell companies are commonly known as ‘suitcase banks’ or ‘brass plate banks’ because they do not have any employees. They exist only as a post office box or nameplate on a building. An account is opened at a legitimate financial centre. The purpose is to serve as front or cover for one or more companies. It may have the appearance of being real with a logo, website, public relations, etc., but lacks the capacity to function independently. The goal is usually to conceal the true ownership of the launderer and/or avoid taxes.

Front companies

Unlike shell companies, these businesses are legitimate and trade actively. Proceeds of crimes are used to fund the business activities of the enterprise and/or are co-mingled with the legitimate proceeds of the business itself. If the criminal launders cash, the front business will normally be cash-based to facilitate the process. To avoid suspicion, front companies deal directly with the public and perform some service e.g. a

hairstylist and have a business that reasonably would accept cash as a matter of course. Dealing directly with the public in cash gives a plausible reason for not having a record of customers.

Since the Financial Intelligence Centre Act requires that suspicious transactions be reported, money launderers create a legitimate front company whose transactions are always above the threshold. After the financial institution had monitored the initial transaction flow over a period of time and regarded the 'value' of the transactions as 'normal' the money launderer could engage in laundering funds knowing that the financial institution would not deem this to be suspicious. By placing their own collaborators in key positions it is possible to subvert the organisation or to mingle illegal or sham transactions with valid business transactions. Authorities would therefore find it more difficult to unravel the laundering or tax evasion that occurs.

Money launderers are willing to accept low profit margins in order to operate their front businesses making it impossible for legitimate businesses to compete.

Informal business sector

The informal business sector serves as a convenient front business. This sector consists of businesses that are unregistered, generally small in nature and are seldom run from business premises (usually from homes or the pavement). The nature of the informal sector makes it difficult to identify the client, verify its financial status and levy execution in case of default. It is difficult to dispute the business's alleged turnover in relation to its actual turnover. Most of the informal sector business is conducted on a cash basis. This, together with the absence of formal financial and business records, allows for the abuse of such enterprises by launderers.

Favourable opportunities exist in hawking as the sale of counterfeit goods and pirated digital video disks may also contribute to money laundering. A criminal syndicate could either sell counterfeit goods or pirate DVD's and subsequently launder the proceeds or use laundered funds to purchase these goods through the informal market. While the former scenario is more likely, the latter demonstrates how a syndicate could channel the proceeds of crime into the informal sector.

FIGHTING MONEY LAUNDERING

Financial intermediaries should know their customers (also called KYC). Where financial intermediaries know their customers, they will often be able to identify unusual or suspicious behaviour. One example of suspicious behaviour would be companies' representatives avoiding contact with the bank branch. Banks and businesses should make use of the various software packages capable of name analysis, statistical and profiling engines, time sequence matching, etc.

Asset seizure as an instrument of economic justice uses amnesties and tax measures to mop up illicit income.

GLOBAL TREATIES ON MONEY LAUNDERING

A multilateral, co-ordinated, effort is required to counter the international dimensions of money laundering. The United Nations, the Bank for International Settlements, the OECD's Financial Action Task Force, the EU, the Council of Europe, the Organisation of American States, all published anti-money laundering standards.

Financial Action Task Force

The commencement of the Financial Action Task Force (FATF) in 1989 is regarded as a watershed in global anti-money laundering strategy. The Financial Action Task Force is an inter-governmental body with the purpose to develop and promote anti-laundering policies, both at national and international levels. It reviews its mission every 5 years. The Task Force is therefore a "policy-making body" that works to generate the necessary political will to bring about national legislative and regulatory reforms in these areas. The FATF monitors members' progress in implementing necessary measures. In June 2003, South Africa became the first African nation to be admitted into the FATF.

The Forty Recommendations applies not only to money laundering but also to terrorist financing, and when combined with the Nine Special Recommendations on Terrorist Financing provide a comprehensive framework of measures for combating money laundering and terrorist financing.

In 2005 the United Nations Security Council endorsed the FATF standards and urged all member states to implement the standards embodied in the FATF 40+9 recommendations on money laundering.

In recent years, the FATF has noted increasingly sophisticated combinations of techniques, such as the increased use of legal persons to disguise the true ownership and control of illegal proceeds. Two of their recommendations in this regard are:

- Recommendation 33: Countries should take measures to prevent unlawful use of legal persons by money launderers. Countries should ensure adequate, accurate and timely information on beneficial ownership and control of legal persons that can be obtained in a timely fashion by competent authorities. Countries that have legal persons that are able to issue bearer shares should take measures to ensure that they are not misused.
- Recommendation 38: There should be authority to take expeditious action in response to requests by foreign countries to identify, freeze, seize and confiscate property laundered. There should be arrangements for co-ordinating seizure and confiscation proceedings, which may include the sharing of confiscated assets.

Cross border transmission is a characteristic pattern of unlawfully acquired resources.

Eastern and South African Anti-Money Laundering Group

The Eastern and South African Anti-Money Laundering Group (ESAAMLG) consists of fourteen countries from the eastern region of Africa. South Africa is a ratified member state. In the Memorandum of Understanding among the member governments, the objectives are outlined as:

- Adoption and implementation of the 40 Recommendations of the FATF
- Application of anti-money laundering measures to all serious crimes
- Implementation of any other measures in multilateral agreements to which the member governments subscribe for the prevention and control of money laundering of the proceeds of all serious crimes

The United States is a co-operating and supporting country and US representatives were present at the launch of the ESAAMLG and the US maintained the interactive role in a variety of ways.

THE POSITION IN SOUTH AFRICA

South Africa's position as the major financial centre in the region, its relatively sophisticated banking and financial sector and its large cash-based market, makes it a vulnerable target for trans-national and domestic crime syndicates. There is a significant black market for smuggled and stolen goods.

The effect of money laundering on South Africa

The major effects of money laundering are the following:

- Undermining the legitimate private sector. Criminal syndicates force informal businesses out of the market as similar businesses financed by laundered funds do not have to operate at a profit.
- Economic distortion and instability.
- Loss of revenue. Money laundering decrease the amount of tax collected, thus putting a heavier tax burden upon "honest" South Africans.
- Reputation risk. Investor sentiment is often driven by perceptions. Any scandal may have financial implications. Similarly, perceptions regarding the extent of money laundering in South Africa may negatively influence investment and economic growth.

National anti-money laundering legislation in South Africa

1. **Bank Act 94 of 1990**

The sector in South Africa with the best system to report money laundering is the banking sector. Regulation 48 under the Bank Act 94 of 1990 compels banks to implement and maintain policies and procedures to guard against the bank being used for financial fraud, market manipulation and money laundering and to report suspicious transactions.

2. **Proceeds of Crime Act 76 of 1996**

The Proceeds of Crime Act 76 of 1996 originally criminalized money laundering for all serious crimes. South Africa replaced this act with the Prevention of Organized Crime Act 121 of 1998 which confirms the criminal character of money laundering, mandates the reporting of suspicious transactions and contains “safe harbour” provisions. Violation of this act carries a fine of up to ZAR100 million or imprisonment for up to 30 years.

3. **Prevention of Organised Crime Act 121 of 1998**

The Prevention of Organised Crime Act (POCA) criminalises money laundering in general. It contains a general reporting obligation for businesses coming in possession of suspicious property. It also contains mechanisms for confiscation of proceeds of crime and for civil forfeiture of proceeds of offences.

General reporting obligations in respect of suspicious transactions are created by s.7 of POCA, but repealed by FICA with new and broader provisions relating to suspicious and unusual transactions. Apart from reporting obligations, POCA does not impose the detailed compliance obligations that are generally associated with a money laundering control system. These obligations are created by FICA

4. **Financial Intelligence Centre Act 38 of 2001**

The Financial Intelligence Centre Act (FICA) came in effect on 1 February 2002 was amended by the Financial Intelligence Centre Amendment Act 11 of 2008. Apart from providing for the establishment and operation of the Financial Intelligence Centre (FIC) and the Money Laundering Advisory Council, FICA creates money laundering control obligations and regulates access to information.

FICA requires financial institutions and businesses to identify customers, maintain records of transactions for at least five years, appoint officers to train employees to comply with the law and report unusual or suspicious transactions. Both the Prevention of Organized Crime Act and the FICA contain criminal and civil forfeiture provisions.

If a person who reported unusual or suspicious transactions or gave information concerning such a report, declines to give evidence the FIC may, by way of a certificate certifying that the information in the certificate was sent to FIC in terms of FICA, disclose as evidence the information received in the initial report. This certificate is on its mere production before a court admissible as evidence of any fact contained in it. FIC collects, retains, compiles and analyses all information disclosed to it. When FIC receives information of suspicious transactions the reports are followed up and analysed and if necessary, passed on to investigating agencies. It will not investigate criminal activity, but will provide information to and co-operate with investigating authorities.

The principal objective of the Financial Intelligence Centre (FIC) is to assist in the identification of the proceeds of unlawful activities. As such they must make collected information available to investigating authorities to facilitate the enforcement of the laws of South Africa. They must also exchange information with similar financial intelligence units in other countries.

There is a special relationship between FIC and SARS to combat tax evasion.

ILLUSTRATIONS OF VARIOUS TRADE BASED MONEY LAUNDERING TECHNIQUES USING COMPANIES

To conceal the origin of illegal funds and complicate efforts to trace the money, trade-based money laundering disguises the proceeds of crime by moving value by means of trade transactions in an attempt to legitimise their illicit origin.

1. Over- and under invoicing of goods

Company A (a foreign exporter) ships 1 million widgets worth \$2 each, but invoices Company B (a colluding domestic importer) for 1 million widgets at \$1 each. Company B pays Company A \$1 million. Company B then sells the widgets on the open market for \$2 million and deposits the extra \$1 million into a bank account to be disbursed according to Company A's instructions. Alternatively, Company A (a domestic exporter) ships 1 million widgets worth \$2 each, but invoices Company B (a colluding foreign importer) for 1 million widgets at \$3 each. Company B pays Company A \$3 million. Company A pays \$2 million to its suppliers and deposits the remaining \$1 million into a bank account to be disbursed according to Company B's instructions.

Company A and Company B are controlled by the same organisation.

2. Over- and under shipment of goods

A money launderer can overstate or understate the quantity of goods being shipped or services provided. In the extreme, an exporter may not ship any goods at all, but collude with an importer to ensure that all shipping and customs documents associated with this so-called "phantom shipment" are routinely processed, for example:

Company A (a domestic exporter) sells 1 million widgets to Company B (a colluding foreign importer) at \$2 each, but ships 1.5 million widgets. Company B pays Company A \$2 million. Company B sells the widgets on the open market for \$3 million and deposits the extra \$1 million into a bank account to be disbursed according to Company A's instructions. Alternatively, Company A (foreign exporter) sells 1 million widgets to Company B (colluding domestic importer) at \$2 each, but ships only 500 000 widgets. Company B pays Company A \$2 million. Company A then pays \$1 million to its suppliers and deposits the remaining \$1 million into a bank account to be disbursed according to Company B's instructions.

3. False description of goods

A money launderer can misrepresent the quality or type of a good or service for example:

Company A (domestic exporter) ships 1 million gold widgets worth \$3 each to Company B (colluding foreign importer), but invoices Company B for 1 million silver widgets worth \$2 each. Company B pays Company A \$2 million. Company B sells the gold widgets on the open market for \$3 million and deposits the extra \$1 million into a bank account to be disbursed according to Company A's instructions. Alternatively, Company A (foreign exporter) ships 1 million bronze widgets worth \$1 each to Company B (colluding domestic importer), but invoices Company B for 1 million silver widgets worth \$2 each. Company B pays Company A \$2 million. Company A pays \$1 million to its suppliers and deposits the remaining \$1 million into a bank account to be disbursed according to Company B's instructions.

4. Transfer of funds

A Brazilian company signs a contract to export soybeans to a German company. The German company prepays the Brazilian company for the shipment. The Brazilian company immediately transfers the funds to a third party that is unrelated to the transaction. The soybeans are never shipped.

Another example: A food product trading company is established and conducts business with several African food product companies. The money the company receives for the sale of its products is immediately transferred from the company's account to the personal account of its manager in Belgium. The funds are then quickly transferred to several foreign companies. The company also receives transfers from an unrelated

company in the diamond business. The money from the diamond company is commingled with the company's other business receipts and transferred through Belgium to the same foreign companies.

5. Shell companies

A Brazilian company is engaged in a range of illegal activities. The generated cash is smuggled out of Brazil by cash couriers and deposited in the bank accounts of offshore companies controlled by the company. Funds from these offshore accounts are transferred to offshore shell companies and used to purchase concentrated syrup for soft drinks from the Brazilian company at highly inflated prices. The syrup was then sold by the shell companies to other legitimate companies at a significant loss.

6. Lawyers and real estate agents

Money launderers are fond to spend money on real estate, e.g. deliberately buy run-down properties because it gives the launderer the opportunity to spend sizeable amounts of cash to restore the property. Another scenario is where proceeds of crime are paid into an attorney's or estate agent's trust account by a client who instructs the attorney or estate agent to assist him in acquiring a property. A few days later the client cancels the instructions and requests repayment of the money. The attorney or estate agent makes out a cheque to the criminal and a sizeable amount of money is laundered through the trust account of the attorney or estate agent.

RED FLAG INDICATORS

Financial intelligence units indicate that they make extensive use of red flag indicators, but the majority of respondents believe there is considerable scope to make better use of such indicators and other analytical techniques to promote a more risk-based approach to detect trade-based money laundering. A few examples of Red Flag Indicators are:

- The size of a shipment appears inconsistent with the scale of the exporter or importer's regular business activities
- The shipment does not make economic sense e.g. the use of a forty foot container to transport a small amount of low-value goods
- The commodity is shipped to (or from) a jurisdiction designated as "high risk" for money laundering activities
- The commodity is transhipped through one or more jurisdictions for no apparent economic reason
- The method of payment appears inconsistent with the risk characteristics of the transaction e.g. the use of an advance payment for a shipment from a new supplier in a high-risk country
- The transaction involves the use of repeatedly amended or frequently extended letters of credit

CONCLUSION

It is difficult to quantify the extent to which economic policy globally as well as in South Africa is influenced by money laundering as launderers are sophisticated and well informed. The more successful a money launderer is, the more the mode of laundering funds will resemble legitimate business activity. Criminals are very creative in their attempts to conceal money laundering activities. Their methods and techniques change frequently. It is very difficult to establish the amount of money laundering taking place anywhere in the world. Most criminal organizations are also involved in legitimate business.

South Africa's position as the major financial centre in the region, its relatively sophisticated banking and financial sector and its large, cash-based market, make it a vulnerable target for trans-national and domestic crime syndicates. South Africa faces many challenges that are foreign to developed economies, for instance those in respect of the abuse of its informal business structure. The fact that a high number of international crime groups operate in South Africa and a lack of money laundering prosecutions indicate that South Africa remains vulnerable to all-source money laundering.

Smuggling and lax border enforcement contributes to South Africa's vulnerability. There are plans to implement a single currency in the Southern African Development Community (SADC). If a single currency is introduced, it would make it easier to launder funds without having to account for any losses due to exchange rate fluctuations.

There certainly has been an increase in the reporting of suspicious transactions, although there is no evidence that less money obtained through crime enters the system. There are many loopholes in the national and global system.

Governments worldwide will have to take hands to combat this problem successfully.

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AN EXPLORATORY STUDY EXAMINING THE KNOWLEDGE STAGE OF THE INNOVATION DECISION PROCESS PROPOSED BY ROGERS IN RELATION TO THE ADOPTION OF GLOBAL WARMING BY SOUTH AFRICAN CONSUMERS

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ABSTRACT

Global warming is a macro-environmental variable that impacts on the whole of the global community. The aim of this study is to investigate the knowledge stage of the innovation-decision process to determine whether a sample of consumers is aware and motivated to learn about the global warming. This study is descriptive as it explores global warming issues by means of a questionnaire. An analysis of the results reveals that respondents are aware and motivated to learn about global warming. This research is significant since consumers do contribute to the global warming and they must assist in its mitigation.

INTRODUCTION

Global warming is real and there is no doubt about climate change. Spence (2005:45) states that the evidence is clear and science is certain that climate change is happening. According to Cox (2007:115) there is no question about the fact that increasing concentrations of carbon dioxide and greenhouse gases are causing the earth to warm and human activity since the 1950's (Dessler and Parson, 2007:75-76) has been responsible for the rapid warming that the planet has experienced since this time. Dressler and Parson (2007:76) maintain that human greenhouse gas emissions account for the magnitude of the warming experienced on this planet and the various details of its timing and distribution. According to Dressler and Parson's (2007:76) other proposed causes of global warming have only been found to contribute minimally to this phenomenon.

Global warming and the resultant climate change is a macro-environmental variable that is receiving a great deal of attention globally from all sectors in society as a result of its negative impact on the global community and on the natural environment. According to Shiva (2008:9-13) climate change and global warming kills and displaces millions of people around the world as a result of extreme events such as flooding, droughts and tropical cyclones. Shiva (2008:3) states that in 2001, 165 million people were affected by climate related disasters around the world and in Mumbai on the 26th of July 2005, the 94.4 mm of rain that fell that day killed 100 people, caused the collapse of the civic and public transport services in the city and cost the Indian government Rs 17 billion in damages. Not only has there been excessive precipitation in some areas of India as a result of global warming but droughts in other areas of India have also become so severe that in areas such as Bundelkhand, people are starving to death and the livestock is perishing (Shiva, 2008:12-13).

Although it has been recognized that global warming does benefit the environment to a limited extent, for example it increases the photosynthetic activity of plants in response to higher temperatures and higher concentrations of carbon dioxide, the benefits derived are not sustainable and can diminish in the long term (Cox, 2007:123). In addition, climate change is also seen to have a positive impact on some of the colder regions of this planet where inhabitants experience increased agricultural output as well as decreased winter mortality and energy demand. However, the potential problems that have been identified as a result of global warming and climate change include the premature ripening of fruits, the increased incidence of plant burn and an increased

demand for agricultural irrigation as a result of higher temperatures causing the moisture in the soil to evaporate more rapidly (Cox, 2007:123). This is particularly significant in a country like South Africa where some regions are already experiencing shortages in water supply and according to Spence (2005:28) the recent severe droughts experienced in South Africa were caused by changes in climate as a result of global warming. Increasing temperatures also have a negative impact on livestock in that they cause heat stress in the animals and they facilitate the spread of pests and diseases into areas where they previously did not exist (Cox, 2007:123). From a natural environmental perspective, global warming and the resultant climate change will have a negative impact on the fauna and flora of this planet. It has been estimated that by 2050 thirty-seven per cent of the animal and plant species on this planet will be wiped out as they cannot adapt to the rapid changes that are occurring in the planet's climate as a result of global warming (Spence, 2005:45)

From a business perspective, global warming and climate change is one of the most important environmental challenges facing industry today (Costa, 2005: 25). Estimates by re-insurance industry indicate that the potential monetary costs associated with extreme events and agricultural cycle disruptions, as a result of climate change, could be in the order of billions of dollars per year. (Costa, 2005: 25). These potential costs, in addition to the human suffering and displacement mentioned previously, are focusing the attention of stakeholders on the volumes of greenhouse gases that are emitted by businesses in the environment. For example in the European Union, the five industries that are responsible for 46% of the EU's greenhouse gas emissions (over 2 billion tons of carbon dioxide per annum) are power and heat generation, iron and steel, mineral oil refineries, pulp and paper, as well as the cement, glass and ceramic sectors that make up the mineral industry (Costa, 2005: 28).

Although businesses do contribute a great deal to the greenhouse gas emissions produced, consumers are also responsible for the global warming and climate change problems currently faced by the world because not only do they purchase the products/services generated by these businesses but they have developed attitudes and behaviours that reflect a materialistic approach to life that encourages and facilitates planned obsolescence. The emission of greenhouse gases by the individual consumer's activities may not be seen as much when compared to the amounts released by industry but from an aggregate point of view, taking into account the number of individuals living on this planet, the amount of greenhouse gases released into the atmosphere by the planet's human population becomes significant and critical. For example Cox (2007:129) illustrates this by pointing out that China is currently the second largest emitter of greenhouse gases in the world due to the fact that it has approximately 1.32 billion people who on average consume approximately 10-15 percent of the energy per capita of the average U.S. citizen. Shiva (2008:3) suggests that if mitigation and adaptation to global warming and climate change is to take place, all aspects of human life in all sectors of society need to change including how people shop, move, live and eat.

The Adoption of Global Warming and its Mitigation by Consumers

Global warming is an issue that has emerged in recent decades but according to Spence (2005:19) it is only now that the scientific community is certain that climate change is a major threat. This statement is supported by Dressler and Parsons (2001:2) who state that global warming is an environmental issue that has emerged in the last few decades that is the most difficult and the most serious due the pervasive use of fossil fuels for the provision of energy in all sectors of the world economy. The extensive debate that has been ongoing around the issue of global warming and the subsequent climate change suggests that the adoption of global warming as a crucial issue has not been adopted by a critical mass of the population. The question that one may ask is "Why?" Consumers do contribute to the emission of greenhouse gases into the atmosphere, not only through their lifestyles and consumption behaviours, but also as a result of derived demand which in business marketing states that consumers are ultimately responsible for the demand of business products and services. For example the demand for aircraft engines is ultimately determined by the number of individuals who travel to destinations by air and by the use of air transport for the movement and distribution of goods that ultimately satisfy consumer needs.

Rogers (2003:12) defines an innovation as an idea, practice or object that is perceived as new by the individual or other unit of adoption. According to Rogers (2003:1) many innovations require a lengthy period of many years from the time they become available to the time when they are widely adopted. This situation becomes even more difficult when a "preventive innovation," which is defined as the prevention of an undesired event in

the future by adoption of a new idea, is the innovation that needs to be adopted. (Rogers, 2003:176). It is suggested in this study that global warming is a preventive innovation as consumers need to adopt the scientific fact of global warming in order to participate in the mitigation of this phenomenon. The fact that global warming has been debated for some time, this does not mean that it cannot be regarded as an innovation. According to Rogers (2003: 12) the newness in an innovation need not just involve new knowledge but it may mean that although a consumer may have known about the innovation for some time, they may not have developed an attitude toward it or they may not have adopted or rejected it.

Rogers (2003:164) suggests that in order for a consumer to adopt an innovation, s/he needs to go through the innovation-decision process that is conceptualised as consisting of stages namely:

- **Knowledge** – this occurs when an individual (or other decision making unit) is exposed to the innovation's existence and gains some understanding of how it functions
- **Persuasion** - occurs when an individual (or other decision making unit) forms a favourable or unfavourable attitude toward the innovation
- **Decision** - occurs when an individual (or other decision making unit) engages in activities that lead to a choice to adopt or reject the innovation
- **Implementation**-occurs when an individual (or other decision making unit) puts an innovation into use. Re-invention is especially likely to occur at the implementation stage
- **Confirmation** - occurs when an individual (or other decision making unit) seeks reinforcement of an innovation decision that has already been made, but s/he may reverse this previous decision if exposed to conflicting messages about the innovation.

The innovation decision process by the individual consumer is influenced by a number of factors relating to the innovation itself (in this case global warming). These characteristics have been defined by Rogers (2003:14) as being:

- **Relative advantage** – this is the degree to which an innovation is perceived as better than the idea it supersedes. In the case of global warming this may not be the case as consumers will have to modify their behaviours in such a way that they assist in the mitigation of greenhouse gas emissions. If this is the case, then the rate of adoption will tend to be slower.
- **Compatibility** – this is the extent to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters. According to Rogers (2003:15) the adoption of an incompatible innovation often requires the prior adoption of a new value system which is a relative slow process. Global warming is a phenomenon that needs consumers to become less materialistic, less individualistic and more concerned about the impact of global warming on society and all aspects of the natural environment.
- **Complexity** – this refers to the degree to which an innovation is perceived as difficult to understand and use. Global warming is a phenomenon that is difficult to observe from a consumer perspective in that it is difficult to notice the impact of global warming unless you are living in a very cold climate which is rapidly warming or you are working in a field where global warming is having an impact. For example farming where heavy precipitations over very short periods are occurring and precipitation cycles are changing. Sometimes even these outcomes are explained away through natural climatic cycles. Similarly global warming and climate change has a pervasive impact on this planet in that it affects all aspects of the planet such as wind and ocean currents, the fauna and flora on the planet, the atmosphere and human civilization as whole particularly in the area of health and finance (Spence, 2005:24).
- **Trialability** – the degree to which an innovation can be tried or used on a limited basis
- **Observability** – the degree to which the result of an innovation is visible to others. According to Spence, 2005:24) climate experts are increasingly certain about the changes at a global and continental level but it becomes a lot more difficult to predict what to expect within countries, either regionally or locally.

Although the characteristics of an innovation influence the innovation decision process itself, the characteristics of the individual may also have an impact on the adoption process itself. For example the degree of innovativeness of the individual, the individuals level of involvement in global warming issues, the individual's concern for the natural environment, society and so on. In this exploratory study, the knowledge stage of the innovation-decision process was investigated in order to determine whether consumers' in the 20-29 age bracket

had exposed themselves to the innovation's existence and whether they had in actual fact been motivated enough to inform themselves about the innovation.

PROBLEM STATEMENT

Comments are often made in the academic and popular literature that consumers are becoming increasingly aware of environmental issues and they are now examining the environmental impact associated with the products that they purchase. Global warming is a scientific fact that has significant implications for society and this planet in that it is according to Dressler and Parsons (2001:2) the most difficult and the most serious environmental issue that currently has to be resolved. Part of the solution to this problem is to get consumers to behave in a more socially responsible manner towards this phenomenon by reducing their own contribution to global warming and climate change. In order to be able to achieve this, consumers need to adopt the global warming scientific fact. This can only be achieved if consumers are aware of the phenomenon and they are motivated enough to inform themselves about global warming, its consequences and mitigation.

OBJECTIVES

The primary objective of this exploratory study is to determine to what extent South African consumers in 20-29 age bracket have exposed themselves to the scientific fact of global warming and to what extent have they been motivated to inform themselves about the phenomenon.

The secondary objectives for this study are:

1. To discuss global warming and its associated risks in relation to society, business and the natural environment.
2. To comment on the innovation-decision process and factors that influence this process
3. To evaluate and discuss the responses obtained from the sample in relation to the knowledge component of Rogers (2003:168-172) model on the innovation-decision process.

RESEARCH METHODOLOGY

In order to design a questionnaire that addressed the appropriate issues in relation to the knowledge component of Rogers (2003:168-172) model on the innovation-decision process, the researcher carried out secondary research using journal articles extracted from electronic data bases and academic books that discussed issues relating to global warming and the innovation-decision process. Once this had been achieved, the questionnaire was designed using a 7 point Likert Scale which asked the respondents to indicate the degree of agreement or disagreement with each of a series of statements that related to the knowledge component of Rogers (2003:168-172) model on the innovation-decision process. The values that were assigned to each response variable varied from 7 (very strongly disagree) to 1 (very strongly agree) while a value of 4 represented a neutral option. The questionnaire was pre-tested first by asking two colleagues in the department, who were known for their research competency, to analyze and comment on the questions that were being asked. The comments made by these individuals were then used to modify the questionnaire. The questionnaire was then pretested using four respondents who were similar to the target audience in order to determine whether they experienced any difficulties with the design of questionnaire itself and the questions being asked. Once this had been done, the questionnaire was administered to a convenience sample consisting of 49 well educated, male and female respondents aged between 20-29 years of age who were participating in a B. Com. Honours orientation exercise at a university in South Africa. The responses that were obtained from this sample were then analysed and evaluated using descriptive statistics.

The questions used in this survey are discussed below. According to Rogers (2003: 171) when an individual is in the knowledge stage of the innovation decision process, this person is exposed to an innovation's existence and gains an understanding of it. In order to determine whether the respondents in this study had been exposed to the innovation (in this case global warming) the respondents were asked whether they had heard of the term global warming. Individuals who have been exposed to an innovation may play a passive role in the knowledge aspect

of the innovation decision process by not seeking additional exposure to the innovation itself. This may be due to the fact that the innovation is seen to be of little interest to the individual, the innovation may not be seen to be relevant to the individual's needs nor is it consistent with the individual's attitudes and beliefs (Rogers, 2003:171). In order to determine whether the individual was motivated enough to learn more about global warming the following questions were incorporated in the questionnaire:

- I do not believe global warming exists
- I am interested in global warming issues
- I am interested in learning about the natural environment
- I believe we should protect the natural environment.
- I think that people should learn what they can about global warming

Incorporated in the above set of questions are a couple of questions that refer to the natural environment. These questions about the natural environment are important because if an individual is interested in the natural environment, it is assumed that they would also be interested and motivated to learn about global warming since this has a major impact on the environment and on the fauna and flora on the planet.

In order to try and determine the extent of the consumer's knowledge in relation to the ongoing debate around global warming, the following questions were included in the questionnaire:

- I believe that human activity on this planet contributes to global warming
- I believe that it is the sun's increased activity that is causing global warming
- Global warming is part of the earth's natural climatic cycle

It is interesting to note that scientists now agree that global warming is the result of human activity on the planet and that the other possible contributors to this effect namely orbital variations, tectonic activity, volcanoes, solar variability and internal variability are not responsible for this observed effect (Dessler and Parsons, 2006:67-73). According to Dessler and Parsons (2006: 73) tectonic activity and orbital variations are too slow to cause significant warming over the time period considered while the remaining three natural processes of volcanic eruptions, changes in solar output and internal variability of the climate system, all appear to have contributed little to the rapid warming that has taken place in the last few decades.

In order to determine the respondents' attitude toward the availability of information the following two questions were incorporated in the questionnaire.

- There is information on global warming
- It is easy to get information on global warming

If the respondents feel that information on global warming is available and relatively easy to get, this will motivate them to gather information relating to it. In so doing they are able to have a better understanding of the issues surrounding global warming.

Rogers (2003: 16-17) states that the characteristics of the innovation, namely relative advantage, compatibility, complexity, trialability and observability all influence the rate of adoption. In order to determine whether the complexity associated with global warming could have had an impact on the level of information gathered the following statements were incorporated:

- I think it is difficult to understand the process of global warming
- I think that only scientists can understand the process of global warming
- I can still be interested in global warming

An additional question was added to this section namely:

- I do not need to understand the process of global warming in order to know its consequences

This question was incorporated in order to determine whether the respondent was interested enough to know about the consequences of global warming even though they may not understand the process

In order to determine whether individuals in the respondents' social system were talking about global warming and the issues surrounding it, the respondents were asked the following question:

- Global warming is not something people normally talk about.

According to Rogers (2003:23), the social system in which the individual finds him/herself influences the types of innovation-decisions that are made. In consumer behaviour it is also well known that a consumer's friends, family and social circle play an important role in the decision making process.

The above questionnaire was administered to 49 well educated consumers who had registered to do a B. Com Honors Degree in Marketing at a South African university. Some of these individuals were already working either on a full or part-time basis while others were full time students. What is interesting about the individuals in this sample is the fact that most of them studied geography and science at school. The questionnaire in this study was administered by a colleague during their orientation session at the university.

LIMITATIONS OF THE STUDY

The limitations of this study as stated earlier arise due to the fact that the sample used in this study is a small convenience sample consisting of 49 respondents and therefore the results cannot be projected to the overall population of 20-29 year olds in South Africa and an in-depth statistical analysis is not possible. What this study does do is give an indication of what may be expected from a more comprehensive sample that reflects this sector of the population in South Africa.

RESULTS

In analyzing the results of the knowledge stage of the innovation-decision process, the descriptive statistics will be given under the following headings – exposure, motivation, knowledge, availability of information, complexity and social system

Exposure

The responses obtained for the question 'I have heard of the term global warming' demonstrate that most of the respondents have heard of the term global warming. In this instance two of the respondents' answers were not incorporated into these statistics due to the fact that their viewpoints were not clear as they had indicated that they both disagreed and agreed with this statement. What is interesting to note is the fact that there were three respondents who had not heard of the term global warming.

Table 1 Exposure

Knowledge variable	N	Mean	Standard Deviation	Cumulative % of respondents that disagree	Cumulative % of respondents that agree	Cumulative % of respondents that are neutral
I have heard of the term global warming	47	6,47	1.42	6.4	93.6	0

Motivation

The results obtained for the motivation component of the knowledge variable indicate that 78.8% of the sample do believe that global warming exists while 62.5% are interested in global warming issues. Similarly 85.6% of the sample tested believe that people should learn as much as they can when it comes to global warming. These results suggest that the respondents are willing to learn about global warming, they feel that individuals should

learn about global warming and they believe that global warming is actually happening. In addition to these results the responses obtained on the natural environment suggest that the respondents are likely to respond in a positive manner toward information provided to them about global warming particularly if it relates to its impact on the natural environment. This statement is supported by the fact that 98% of the respondents believe we should protect the natural environment and 77.6% of the respondents like to learn about the natural environment.

Table 2 Motivation

Knowledge variable	N	Mean	Standard Deviation	Cumulative % of respondents that disagree	Cumulative % of respondents that agree	Cumulative % of respondents that are neutral
I do not believe global warming exists	47	2.13	1.74	78.7	12.8	8.5
I am interested in global warming issues	48	4.85	1.46	12.5	62.5	25
I am interested in learning about the natural environment	49	5.33	1.27	8.1	77.6	14.3
I believe we should protect the natural environment	49	6.35	.83	0	98	2
I think that people should learn what they can about global warming	49	5.78	1.28	4.1	85.6	10.2

Knowledge

The respondents' knowledge about the theories other than that of human activity causing global warming does not seem to be extensive. This is reflected in the results given below where 30% of respondents believe the sun is causing global warming while 42.9% are neutral. Similarly 22.1% of respondents believe that global warming is part of the earth's natural cycle while 22.9 are neutral. This result may be due to the fact that the question may be perceived as ambiguous since the sun's rays are responsible for maintaining the planet temperature at a level that sustains life and it is known that were certain periods in the earth's history where the planet did warm up. The other possible reason for this response may be the fact that the alternative theories put forward to explain global warming are rarely discussed in the mass media. What is significant about this finding is that if most of the respondents believe that global warming is caused by human activity, this suggests that they would probably accept personal culpability and moral responsibility for this phenomenon and in so doing participate in any global warming mitigation program.

Table 3 Knowledge

Knowledge variable	N	Mean	Standard Deviation	Cumulative % of respondents that disagree	Cumulative % of respondents that agree	Cumulative % of respondents that are neutral
I believe human activity on the planet contributes to global warming	47	5.74	1.75	10.6	89.4	0
I believe that it is the sun's activity that is causing global warming	49	4.04	1.55	26.5	30.0	42.9
Global warming is part of the earth's natural climatic cycle	48	3.56	1.53	50	22.1	22.9

Availability of Information

The results of pertaining to availability of information suggest that most of the respondents perceive that information is readily available when it comes to global warming. This is significant since it motivates the respondents to gather information about global warming. This result may also be explained by the fact that most of the respondents in this research have studied geography and science at school.

Table 4 Availability of Information

Knowledge variable	N	Mean	Standard Deviation	Cumulative % of respondents that disagree	Cumulative % of respondents that agree	Cumulative % of respondents that are neutral
There is information on global warming	49	5.88	1.25	4.1	89.8	6.1
It is easy to get information on global	49	5.73	1.24	4.1	85.7	10.2

Complexity

Although 51% of the respondents do not feel that the process of global warming is difficult to understand, 24.5% of respondents do have a problem with understanding it while the remainder are found to be neutral. This suggests that for some of the respondents this issue may not motivate them to search for information relating to the topic. It is interesting to note that most respondents do not feel that you have to be a scientist in order to understand the process, in other words you do not need to be an expert. This viewpoint is supported by the response to the question “I can still be interested in global warming even if it is technically complex” where 85.1% of the respondents agree with the statement. These results suggest that understanding global warming issues is not beyond the capability of the ordinary consumer.

Table 5 Complexity

Knowledge variable	N	Mean	Standard Deviation	Cumulative % of respondents that statement	Cumulative % of respondents that agree	Cumulative % of respondents that are neutral
I think that it is difficult to understand the process of global warming	49	3.61	1.22	51.0	24.5	24.5
I think that only scientists can understand the process of global warming	49	2.82	1.64	77.6	12.2	10.2
I do not need to understand the process of global warming in order to understand its consequences	48	3.56	1.88	58.3	33.3	8.2
I can still be interested in global warming even if its technically complex	47	5.34	.96	2.1	85.1	12.8

Social System

In this study it is interesting to note that most of the respondents do not see people around them including those in their social circle discussing global warming. The results obtained from this study show that 47.9% of the respondents feel that global warming is not something people talk about. This is particularly significant for an issue such as global warming where you want consumers to act as opinion leaders by providing others with information about global warming. If the opinion leader is not provided with an opportunity to discuss his/her knowledge, then it becomes more difficult to achieve a critical mass of consumers who are prepared to participate in mitigation activities that eventually become the norm.

Table 6 Social System

Knowledge variable	N	Mean	Standard Deviation	Cumulative % of respondents that disagree	Cumulative % of respondents that agree	Cumulative % of respondents that are neutral

Global warming is not something people normally talk about	48	4.31	1.43	25	47.9	27.1
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MANAGERIAL IMPLICATIONS

Linder (2006:103) states that international environmental groups and a few Western governments have invested considerable resources in the social marketing of risk claims about global warming. According to Linder (2006:103) these social marketing programs emphasize personal culpability and assign responsibility to the individuals rather than to industrial sources. This is understandable since demand in business markets is ultimately derived from consumer demand.

Global warming is a phenomenon that needs to be addressed by governments, businesses and consumers due to its critical nature in relation to survival on this planet. Although an individual's contribution to greenhouse gas emissions may be seen as insignificant when compared to large business, the cumulative effect of more than 6 billion people on this planet releasing greenhouse gases into the atmosphere is quite large. This is demonstrated by the fact that China is now the second largest emitter of greenhouse gases into the atmosphere even though the emission per person in China is much lower than that of an individual in the United States. The reason why this is so is due to the fact that it has so many people whose standard of living is encouraging greater a consumption of energy.

If consumers are to have a significant impact on the mitigation of global warming, a critical mass of consumers needs to adopt the scientific fact of global warming. Rogers (2003:12) states that in order for an innovation to take off, approximately 10-20 percent of the population needs to adopt the innovation. According to Rogers (2003:12) this is the critical point where interpersonal networks become activated and a critical mass of adopters begins to use the innovation. It is interesting to note that in this study, the majority of respondents agree that people do not normally talk about global warming and this suggests that in South Africa we have not reached this critical point.

RECOMMENDATIONS FOR FUTURE RESEARCH

Rogers (2003:168-172) proposes a five stage model to explain the innovation-decision process. This study focused on the first stage proposed by Rogers in order to determine how consumers responded to the knowledge stage of this model. The opportunity therefore exists to examine the issue of global warming taking all five stages of the innovation-decision process into account. This is particularly relevant in a global community which is already experiencing the negative impacts of global warming. What is currently needed in relation to global warming is a critical mass of consumers who adopt the scientific fact of global warming and who are prepared to develop mitigation attitudes and behaviours that assist governments and businesses in mitigating the effects of global warming.

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CHANGING NATURE OF THE RELATIONSHIP BETWEEN TRADE AND ECONOMIC GROWTH IN BELIZE

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ABSTRACT

This study examines the changing nature of the relationship between trade and economic growth in Belize during the 1981-2007 period, incorporating into the analysis the effects of agricultural export diversification. Agricultural export diversification is measured using an entropy index. The empirical analysis is based on the application of the Cooley-Prescott procedure for handling time varying coefficients. Our empirical findings reveal exports impacted economic growth positively, but the importance of exports in promoting economic growth declined. Imports had a positive but decreasing effect on economic growth. Agricultural export diversification had a negative impact on economic growth, which marginally increased over the review period. These findings suggest that liberalized trade policies have the potential to generate improved economic growth in Belize, while continued diversification of the country's agricultural exports could potential hurt growth.

INTRODUCTION

The relationship between trade (exports and imports) and economic growth has been widely explored from both theoretical and empirical perspectives. Unfortunately, many studies focused almost exclusively on the link between exports and economic growth either in terms of causation or within the context of a simultaneous equation model. Despite the vast literature on the link between exports and economic growth, relatively little research has been conducted on very small countries such as those comprising CARICOM. IN this study, Belize is the focus of attention.

Despite the significant interest in the relationship between trade and economic growth, the role of imports in the economic growth process has received little attention in the literature relative to exports'. This is, perhaps, surprising because the inclusion of both imports and exports as separate arguments in the neoclassical type of production function typically used to model economic growth is justified in the literature (Esfahani 1991). Esfahani (1991) found that exports had a positive impact on economic growth through the provision of foreign exchange and positive externalities arising from increased competition. However, he also justified the inclusion of imports as an additional explanatory variable in the growth model because imports tend to be correlated with exports. If imports are excluded from the model, Esfahani (1991) argued that the impact of exports would be overestimated.

The relationship between economic growth and import is ambiguous. On the one hand increasing imports can be indicative of a deteriorating balance of payments which can have adverse economic impacts of domestic economics performance. Such a view is, perhaps, indicative of the common wisdom held by many policy-makers in the Caribbean. ON the other hand, it is also possible that increased imports embody competitive forces that result in improved performance by domestic industries, and as a consequence improved economic growth. Ultimately the relationship between imports and growth is an empirical question.

Over the period of time covered by this analysis, many CRIAOM countries, including Belize, have simultaneously pursued export-led growth policies and agricultural diversification. The basic argument has been that improved export performance through agricultural diversification of necessary to wean CARICOM countries from the traditional export trinity of bananas, sugar and rice. However it is unclear whether

diversification of agricultural export will in fact lead to improved economic growth. Indeed, it is possible that in the case of very small economies, attempt to diversify agricultural activities can lead to economic inefficiencies that inhibit rather than enhance economic growth. As in the case of imports, the relationship between agricultural diversification and economic growth is an empirical question.

The purpose of our study is to examine the nature of the relationship between trade and economic growth in Belize during 1981-2007, incorporating into the analysis the effects of agricultural export diversification. As the policy environment has dynamically changed over the periods of analysis, the study also examines the extent to which there have been any significant changes in the nature of the relationships among trade, agricultural export diversification and economic growth in Belize over the review period by estimating time varying parameters for each of the independent variables of immediate concern.

The motivation for our study is three-fold: First, this study is intended to partially fill the existing gap in the literature in relation to the trade-growth nexus in relatively small, open economies like those in the Caribbean. Second, guided by Esfahani (1991), the analysis explicitly incorporates the effects of imports on economic growth. Third, given that agriculture plays an important role in the economy of Belize, which also experienced some degree of agricultural export diversification since the 1970s (Taylor and Francis 2003), it is important that the trade-growth relationship be examined while incorporating the influence of agricultural export diversification.

The plan of the paper is as follows. Section two provides a brief review of some theoretical issues pertaining to the relationship between trade and economic growth as well as examines the relationship between agricultural export diversification and economic growth. The third section presents the econometrics methodology used in our study. The fourth section discusses the data and empirical results. The paper ends with some concluding remarks.

LITERATURE REVIEW

The relationship between trade and economic growth occupies a vast literature, covering both traditional and modern models. Several excellent publications have dealt with trade in general and the relationship between trade and economic growth in particular. These include Hicks (1953), Myint (1958), Bhagwati (1964), Chipman (1965a,b; 1966), Grossman and Helpman (1990, 1991), Young (1991), Harrison and Revenga (1995), Davis (2000), Jayme (2001), Baldwin (2003), Copeland and Taylor (2003), Faber and Orbie (2008), Foster (2008), Evenett (2009), and Wijeweera et. al (2010).

Chipman (1965a,b; 1966) grouped trade models into three categories: classical, neoclassical, and modern. These categories merely reflected differences in emphasis (Chipman 1965a). In Chipman's (1965a,b; 1966) categorization, classical trade theories refer to the works of Mill, Ricardo, and Torrens, all of which brought out the nature of the issue of international specialization in production. The neoclassical school includes the works of early Leontief, Edgeworth, Haberler, Lerner, Marshall, Meade, and Viner. These theories addressed issues on both the consumption and production sides, as reflected in the notions of opportunity cost and community indifference. The modern theories, which began with the work of Heckscher and Ohlin and were extended by Lerner and Samuelson, focused on the role of factor endowment. Endogenous growth models form a significant component of modern theories.

To exhaustively survey this huge body of literature in any single undertaking is virtually impossible. In fact, such an exercise is far beyond the scope of our study. According to Chipman (1965a) *the field of international trade is particularly well provided with surveys, especially (although not exclusively) of a non-mathematical kind, and it would be pointless to try to cover ground that others have covered so well* (Chipman 1965a, p. 478).

Nonetheless, we note that trade theories date back to Adam Smith, who linked development with the role of trade as a "vent for surplus" (Myint 1958). Hicks' (1953) illustrious "Inaugural Lecture" at Oxford paved the way for the development of postwar theoretical literature, which focused mainly on the comparative static effects of economic expansion on the terms of trade and balance of payments. The analysis of the determinants

of terms of trade between rich and poor countries (the so-called North-South models, otherwise called center-periphery models) with differential demand structure, labor market conditions, and patterns of growth; form part of this huge literature.

Indeed, the relationship between trade and economic growth was explored early within the context of theories of absolute and comparative advantage in which the essential argument is that trade is the way to achieve static productivity efficiency and international competitiveness, leading, in turn, to economic growth. However, it is not clear, under the Ricardian or the H-O-S model, if and how trade impacts economic growth in the long run (Jayme 2001).

More recent developments in trade theories that explain the relationship between trade and economic growth include Bhagwati's immiserizing growth, endogenous trade theories, Kaldor's export-led model, and Taylor's open structuralist model. The fundamental argument in Bhagwati's (1958) immiserizing growth theory is that after technological progress, national welfare can decline as a result of economic growth. This may result from a deterioration of the terms of trade that exceeds the favorable effect on welfare due to economic growth at constant relative product prices. Therefore, if a country opens to trade in the presence of distortions, the effects on growth can be immiserizing, in turn, decreasing the welfare of the economy (Jayme 2001).

By the late 1980s and early 1990s, according to Baldwin (2003), endogenous trade theories emerged, spearheaded by Helpman (1991), Lucas (1988), and Romer (1986). The relationship between international trade and economic growth formed a major area of focus of endogenous models. Grossman and Helpman (1991), for example, addressed the question of how trade policy can affect growth rates, in a two "small" country case—small in the sense of facing fixed world prices for the two final goods produced. Baldwin (2003) noted that in Grossman and Helpman's (1991) formulation, if a country is importing the good that only uses human capital as a direct input and exporting the good intensively using unskilled labor, the import duty would raise the relative domestic price of the human capital-intensive good and, via the Stolper-Samuelson theorem, raise the relative wages of skilled labor. This increase in the price of human capital will lower the level of research and development activity by raising its costs and thus lead to a lower equilibrium growth rate. In contrast, if the country imports the unskilled labor-intensive goods, import protection will lower the relative wages of skilled labor and accelerate the growth rate.

Thus, in this model there is no definite answer to whether protection increases or decreases the growth rate. It depends on the pattern of imports and exports. Besides using the concept of increasing returns as the driving force for endogenous growth, Grossman and Helpman (1991) and other growth theorists, according to Baldwin (2003), have introduced such concepts as knowledge spillovers resulting from trade in goods as well as the ability to imitate the products of foreign producers as engines of endogenous growth. Import protection generally reduces growth rates under these formulations.

According to Jayme (2001), Kaldor (1970) developed an export-led growth model built on the notion of cumulative causation, taking into consideration the fact that exports are the main component of demand. The model highlighted the role played by the rate of growth of foreign demand in stimulating higher levels of output in the domestic economy. In this model, it is the rate of growth of autonomous demand that determines the rate of growth of output. Some economists extended Kaldor's model by incorporating the balance-of-payments constraints (Jayme 2001). Thirlwall (1979), for example, applied the balance-of-payments constrained economic growth model to look at industrialized economies. He later extended the model to capture the effects of capital flows, an important issue for developing countries. The basic idea behind the model is that differences among countries' long-run growth rates can be explained by difference in demand.

Taylor (1993) developed a stylized model that sought to explain the relationship between trade, financial openness, and economic growth (Jayme 2001). Based on an analysis of trade policy and economic growth in a sample of countries, Taylor (1993), according to Jayme (2001), found no clear evidence linking trade to the performance of the economies. Fast-growing countries, more or less open, had diverse patterns of specialization, but their success was not led by growth in exports, industrial or otherwise. Trade policy did not appear to be promoting economic growth. In fact, there was no evidence, empirically or theoretically, that trade and liberalized trade policies stimulated economic growth in the countries included in our study.¹ Jayme (2001) concluded Taylor's (1993) stylized model revealed that trade does not necessarily affect growth by way of

liberalization of current and capital accounts. This finding simply contributes to the ambiguous nature of the relationship between trade and economic growth that is so predominant in the literature.

With respect to the relationship between agricultural export diversification and economic growth, Amin Gutiérrez de Piñeres and Ferrantino (1997), and Stanley and Bunnagi (2001), suggested that the primary motive behind export diversification efforts has been the desire to foster economic growth and enhance export earnings stability. The process by which this effect occurs begins with technological innovation, resulting in improvements in efficiencies in production. These efficiencies will impact the competitive structure of production and, by corollary, the competitive advantage of various industries. By pursuing policies of openness, market forces provide incentives for efficiency and enable technology transfers and export opportunities. In turn, market driven structural changes evolve, export structures develop, and economic growth is impacted. The theoretical underpinning of these ideas is in the literature on economic growth and convergence, particularly the new growth theories and technology gap models. In this setting, causality runs from diversification to economic growth. Indeed, Al-Marhubi (2000) found export diversification promotes economic growth.²

The link between agricultural export diversification and economic growth can also be explained using the product cycle literature (Dollar 1986, Grossman and Helpman 1991, Krugman 1979, Matsuyama 2000, Segerstrom et al. 1990, Stokey 1991, Vernon 1966). The main argument here is that innovative activity by the North generates increasing product diversification, while imitative activity by the South translates into greater diversity of products being produced and exported from low-wage locations (Amin Gutiérrez de Piñeres and Ferrantino 1997). Hence, economic growth and export diversification are linked. Learning and knowledge spillovers play important roles in this process (Amin Gutiérrez de Piñeres and Ferrantino 1997).

ECONOMETRICS METHODOLOGY

The specification of the empirical model is based on standard neoclassical and endogenous trade and growth theories, and incorporates several sources of economic growth to avoid potential misspecification errors due to omitted variables. Hence, we propose a model of the form:

$$(1) \quad DY_t = \beta_0 + \beta_1 DKD_t + \beta_2 DKF_t + \beta_3 DL_t + \beta_4 DX_t + \beta_5 DM_t + \beta_6 DH_t + \beta_7 DVI_t + \varepsilon_t$$

where DY is the economic growth rate, DKD is the rate of growth of domestic investment, DKF is the rate of growth of foreign investment, DL is the growth in labor, DX is the growth in total exports, DM is the growth in total imports, DH is the growth in human capital, and DVI is the growth in agricultural export diversification, based on the entropy measure or index of total diversification.³

The coefficients from Equation (1) for the growth in domestic investment (β_1); growth in labor (β_3); growth in total exports (β_4); and growth in human capital (β_6) are expected to be positive. The coefficients for the growth in foreign investment (β_2); growth in total imports (β_5); and the growth in agricultural export diversification (β_7), could be positive or negative, depending on the nature of the dynamics of those variables and economic growth. Theoretical and empirical arguments in support of the signs for the various coefficients in Equation (1) can be found in Akbar and Naqvi (2000), Al-Marhubi (2000), De Long and Summers (1991), Podrecca and Carmeci (2001), Renelt (1991), Rogers (2003), and Temple (1999).

To determine whether there have been any changes in the nature of the relationship between trade and economic growth in Belize since the early 1980s, the empirical analysis incorporates time-varying parameters. Finally, two approaches to estimation have been followed in the literature for dealing with the issue of structural change. The first relates to the time varying coefficients model, which captures the changes in the coefficients from one year to the next in a simple manner. The second approach involves more complex techniques and uses, for example, state-space framework and the Kalman filter. We apply the first approach in our empirical analysis.

Model estimation uses the Cooley-Prescott procedure for estimating time varying parameters.⁴ Much of the early work on time varying coefficients has been attributed to Rosenberg (1973), and Cooley and Prescott (1973a, b). Cooley and Prescott (1973a) observed that an econometric equation (representing a complex

behavioral or technical relationship) is by definition an approximation of reality. Hence, it is susceptible to specification errors and structural change over time. These changes may be associated with changes in technology, institutional arrangements, tastes, and managerial techniques. Furthermore, Cooley and Prescott (1973a) suggested that when statistical tests are applied to econometric relationships, the hypothesis of structural stability is often rejected.

In subsequent years, several articles have emerged in the literature dealing with time varying coefficients (Engel and Watson 1987, Harvey et al. 1986, Nichols and Pagan 1983, Ward 1982, Ward and Myers 1979, Ward and Stevens 2000). All of these studies explored issues pertaining to time varying coefficients in a comprehensive yet succinct manner. Our application of the Cooley-Prescott technique is consistent with the approach used in these studies.

DATA AND EMPIRICAL RESULTS

The empirical analysis is conducted with data on economic growth, agricultural export diversification, total exports, total imports, and the other key variables included in Equation (1) for the period 1981-2007. Agricultural export data came from the FAOSTAT Online Agriculture Database. Data on all the other variables were obtained from the World Bank Development Database. The literacy rate is used as a proxy for human capital.

The Cooley-Cooley-Prescott procedure was applied to estimate Equation (1) using data that covered the period 1981-2007. The estimation was carried out using the Time Series Processor (TSP, version 5.0) software. Before these procedures are implemented, descriptive statistics are calculated for all the variables of interests. These descriptive statistics as well as estimated time varying coefficients and supporting statistics for 2007 are reported in Tables 1 and 2, respectively.

Table 1: Descriptive Statistics for Main Variables Used in the Empirical Model.

	1980s	1990s	2000-2007
Growth Rate of GDP			
Mean	7.519	7.348	7.228
Median	8.940	6.030	6.395
Maximum	21.370	16.040	13.580
Minimum	-7.080	1.930	4.750
Std. Dev.	9.156	4.434	1.512
Growth Rate of Total Exports			
Mean	10.072	6.969	8.140
Median	11.090	6.300	6.830
Maximum	41.990	18.460	22.210
Minimum	-23.010	-6.090	0.600
Std. Dev.	21.756	7.908	7.270
Growth Rate of Total Imports			
Mean	8.334	7.275	6.535
Median	8.840	6.735	5.410
Maximum	30.690	24.150	25.130
Minimum	-13.350	-11.090	-5.210
Std. Dev.	15.944	9.996	9.285
Growth in Agricultural Export Diversification			
Mean	175.678	188.840	219.328
Median	178.500	188.000	224.225
Maximum	211.400	204.600	226.870

Minimum	121.300	178.000	188.600
Std. Dev.	30.831	7.565	12.774

Notes:

1. The 1980s refers to the period 1981-1989
2. The 1990s refers to the period 1990-1999

Table 2: Estimated Time Varying Coefficients for Belize, 2007.

Variable	Coefficient	Std. Error	t-value	P-value
Intercept	8821.29	43.36	203.44	[.000]
Growth in Domestic Investment	-0.027	0.029	-0.923	[.356]
Growth in Foreign Investment	-0.012	0.015	-0.798	[.425]
Growth in Labor Force	-6.708	0.352	-190.522	[.000]
Growth in Total Exports	1.029	0.030	34.348	[.000]
Growth in Total Imports	0.652	0.030	21.745	[.000]
Growth in Human Capital	9.823	0.043	227.406	[.052]
Diversification Index	-0.058	0.030	-1.940	[.000]
Diagnostics Statistics				
Sum of squared residuals	0.001			
Schwarz B.I.C.	87.579			
Variance of residuals	0.000			
Log likelihood	-74.572			

As seen in Table 1, in all the variables the sample period 1980-1989 recorded the highest dispersion or spread. A time trend was included in the model because the dependent variable tended to be trending. The time trend was statistically significant, confirming the trend in the dependant variable. Based on the diagnostic statistics, the model has performed relatively well. The explanatory variables which were significant at the 10% level included labor, total exports, total imports, human capital and agricultural export diversification. Of the statistically significant variables, signs for the growth in total exports, total imports, and human capital were positive. The magnitude of the impact of these variables on economic growth was 1.029, 0.652, and 9.823, respectively. Agricultural export diversification and labor impacted economic growth negatively. The negative economic effect of this variable on economic growth was 0.058 and 6.708, respectively.

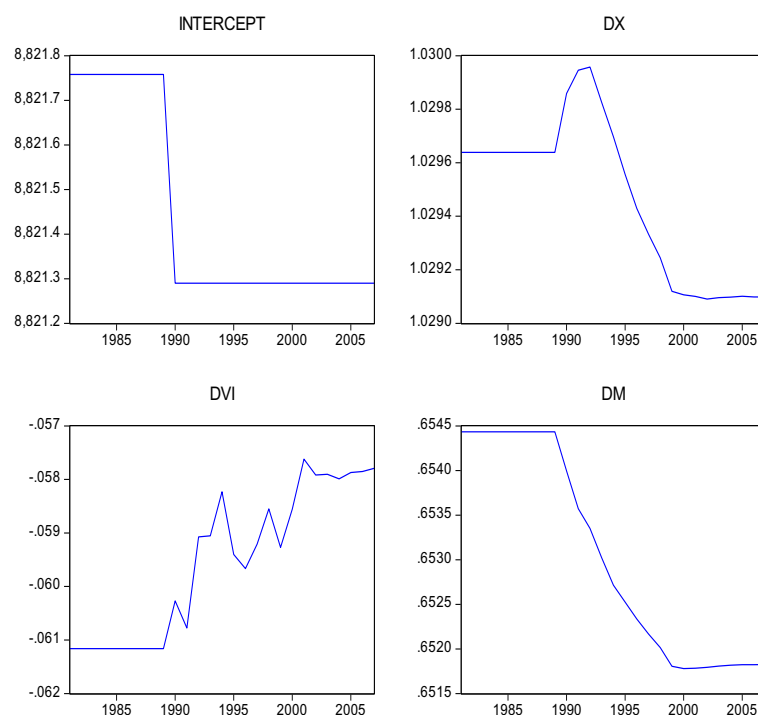
In terms of labor, the migration of skilled workers from Belize is probably a major area of concern. As more and more highly skilled individuals migrated, the labor force may have consisted of an increasing number of less skilled workers. Probably, that is one of the implications of migration that was captured in the negative labor-growth relationship. Given Belize's location, it could be the case that many individuals migrated to the USA and other neighboring countries in Central America in search of greater economic opportunities.

Figure 1 shows the dynamic path of adjustment in the coefficients of the growth in the intercept, total exports, total imports and agricultural export diversification for Belize, 1981-2007. The intercept as well as the coefficients of export and imports declined over the reported period. The opposite effect is witnessed for agricultural export diversification where there is an upward trend in the rate of growth.

Interestingly, agricultural export diversification in Belize leads to a negative impact on economic growth throughout the entire period. Consequently, the impact of a 1% increase in the implied level of agricultural export diversification on economic growth led to a decline in economic growth from 0.061% in 1981 to 0.058% in 2007, a decline of 4.92%. This result is contrary to the findings of Al-Marhubi (2000) who suggests that export diversification promotes economic growth. These findings could be as a result of a relatively undiversified export base, which exacerbates the country's vulnerability to shifts in world demand or terms-of-trade shocks.

Time varying coefficients for the intercept, the growth in total exports, the growth in total imports, and the growth in the entropy index of agricultural export diversification are presented in Table 3, covering the period 1981-2007.⁵

Figure 1: Dynamic Path of Adjustment in the Coefficients of the Growth in the Intercept, Total Exports, Total Imports and Agricultural Export Diversification for Belize, 1981-2007.



**Table 3: Estimated Time Varying Coefficients for Belize, 1981-2007
Inclusive of Starting Values.**

YEAR	INTERCEPT	DX	DM	DVI
1981	8821.7578125	1.0296385	0.6544347	-0.0611611
1982	8821.7578125	1.0296385	0.6544347	-0.0611611
1983	8821.7578125	1.0296385	0.6544347	-0.0611611
1984	8821.7578125	1.0296385	0.6544347	-0.0611611
1985	8821.7578125	1.0296385	0.6544347	-0.0611611
1986	8821.7578125	1.0296385	0.6544347	-0.0611611
1987	8821.7578125	1.0296385	0.6544347	-0.0611611
1988	8821.7578125	1.0296385	0.6544347	-0.0611611
1989	8821.7578125	1.0296385	0.6544347	-0.0611611
1990	8821.2900391	1.0298590	0.6539950	-0.0602684
1991	8821.2900391	1.0299456	0.6535728	-0.0607764
1992	8821.2900391	1.0299573	0.6533504	-0.0590721
1993	8821.2900391	1.0298254	0.6530213	-0.0590547
1994	8821.2900391	1.0296974	0.6527136	-0.0582289
1995	8821.2900391	1.0295564	0.6525240	-0.0594015
1996	8821.2900391	1.0294295	0.6523342	-0.0596669
1997	8821.2900391	1.0293330	0.6521673	-0.0592101
1998	8821.2900391	1.0292446	0.6520142	-0.0585500
1999	8821.2900391	1.0291198	0.6518046	-0.0592721
2000	8821.2900391	1.0291065	0.6517795	-0.0585565
2001	8821.2900391	1.0291003	0.6517835	-0.0576222
2002	8821.2900391	1.0290909	0.6517937	-0.0579167

2003	8821.2900391	1.0290960	0.6518071	-0.0579040
2004	8821.2900391	1.0290978	0.6518180	-0.0579913
2005	8821.2900391	1.0291011	0.6518238	-0.0578698
2006	8821.2900391	1.0290982	0.6518238	-0.0578500
2007	8821.2900391	1.0290988	0.6518251	-0.0577931

With the exception of agricultural export diversification, all of the variables impacted economic growth positively throughout the reported period. There was no change in the signs of the estimated coefficients. The importance of exports in stimulating economic growth remained relatively stable throughout the entire period under study, from 1.030% in 1981 to 1.029% in 2007 (Table 3). In 2007, a 1% increase in exports generated a 1.029% increase in economic growth. These effects may be reflecting Belize's continued reliance on traditional agricultural exports such as bananas and sugar. Imports also have a positive impact on economic growth and ranged from 0.654% in 1981 to 0.652% in 2007, a decline of 0.31%.

Given the evolution of the various coefficients, there is evidence of structural changes taking place in Belize during the period 1990-2001, consistent with the observed changes in the relationships among agricultural export diversification, trade and economic growth. Despite changes in these relationships and the statistical significance of the growth in total exports, total imports, and agricultural export diversification, it should be noted that the economic impact of each of these three variables on economic growth is relatively small. Indeed, during 1990-2001, Belize pursued an outward-oriented development strategy that emphasized the importance of both exports and imports in stimulating economic growth, having shifted in the early 1980s from a policy of import substitution industrialization that emphasized the substitution of imports with domestic production.

To summarize, the preceding discussions indicate that the growth in total exports, total imports, and human capital encouraged economic growth in Belize. Growth in labor and agricultural export diversification hurt economic growth. Growth in total exports had a greater effect than total imports, on economic growth.

CONCLUSION

The objective of our study was to examine the changing nature of the relationship between trade and economic growth in Belize during the 1990s, incorporating into the analysis the effects of agricultural export diversification. The key question addressed in our study was: Has there been any changes in the nature of the relationship between trade and economic growth in Belize during the 1990s? Agricultural export diversification was measured using an entropy index. The empirical analysis was based on the application of the Cooley-Prescott procedure for handling time varying coefficients. The empirical findings suggested that generally economic growth in Belize has been associated with increases in the growth of, total exports, total imports and human capital. On the other hand, agricultural export diversification had a negative impact on economic growth. Indeed, the results confirmed that trade played a significant role in economic growth in Belize during the 1990s.

In relation to the specific question of interest, our empirical findings reveal some changes in the nature of the relationship between trade and economic growth in Belize during the 1990s. The growth in total exports impacted economic growth positively, but the importance of exports in promoting economic growth in Belize declined. The growth in total imports had a positive but decreasing effect on economic growth in Belize. The growth in agricultural export diversification had a negative impact on economic growth in Belize although its importance in stimulating economic growth marginally increased. The statistically significant and negative impact of agricultural export diversification on economic growth is inconsistent with theory that in the long run export diversification enhances economic growth performance relative to what it would have been with a more specialized export structure. This is plausible within the context of Belize given the country's relatively narrow export base.

From a policy perspective, our empirical findings seems to imply that trade liberalization policies can improve Belize's economic growth prospects, but continued diversification of the country's agricultural exports could potential hurt economic growth.

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ENDNOTES

¹See Jayme (2001) for a detailed mathematical development and workings of Taylor's (1993) model.

²Interestingly, McCalla and Valdés (1999) inferred that diversification is an inherent and desirable outcome of economic growth; it is not a strategy to promote growth. Based on this view, the direction of causation runs from economic growth to diversification. It should be noted that their view was not supported by empirical evidence; it was simply a theoretical position. However, a study by Akbar and Naqvi (2000) for Pakistan revealed growth causes export diversification.

³See Theil (1967) for the derivation and discussion of the entropy index of diversification.

⁴Other techniques for dealing with time varying coefficients include stockastically convergent parameters models, recursive estimation models, standard Kalman filtering with transition matrix, trend variables with interaction terms, and diagonalized and non-diagonalized estimates.

⁵The data in Table 3 reflect the fact that the algorithm of the Cooley-Prescott technique requires the earlier years of data as starting or seed values.

MANAGERIAL DECISION – MAKING IN GEOPOLITICALLY TURBULENT ENVIRONMENTS

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ABSTRACT

The presented paper is a presentation of final results of research led throughout past years on a group of Polish and international SME's. The essential aim was the elaboration of a decision – making model including both qualitative and quantitative factors that influence decision – making processes. Most focus has been put on geopolitical determinants of international companies' development. In order to narrow the research field, a further limitation has been made in the type of undertaken solutions. This resulted in focusing on managerial rather than strategic decisions, although long – term strategic planning still can be enhanced through application of proposed method. The research methodology has been based on Analytic Hierarchy Process applied for assessment of individual and collective utility of various indexes describing the actual economic situation and short – term prospects of enterprises operating locally (inside Poland) and internationally. The presented final stage of research draws attention to expert evaluations of 6 professional experts carefully chosen from a group of 31 skilled managers interviewed in preliminary research phase. The study ends with a proposal of a qualitative – quantitative decision - making model anticipating geopolitical factors in order to improve the quality of managerial decision making in international enterprises.

INTRODUCTION

The development of international companies depends on multiple elements. The character of some of them is strictly mathematical, though measurable. This group consists mainly of economic and statistical indexes, such as level of cash on bank account, capitalization, equity price, number of clients, general level of income, investment to income ratio, level of employment, Parts Per Million (PPM), return on capital, floating assets level or operating profit (Earnings Before Interest and Taxes – EBIT). Other determinants bear a quantitative nature – they are easy to observe and define, but hardly convertible into numbers. This last feature makes their availability for comparisons or model applications very limited, none the less necessary at consecutive phases of strategic planning. Product life cycle, product diversification, flexibility, innovativeness, structure of backlog of orders, survival ratio and geographical range of activity belong to this group. Omitting quantitative or qualitative factors at managerial decision – making processes seems to be an unfounded simplification. At the same time this duality of characteristics of decision - making determinants poses significant problems: how shall managers weight the influence of quantitative factors? How should they evaluate the importance of qualitative determinants of their enterprises' development?

Broad studies of economic literature showed little availability of research on application of mathematic tools allowing the integration of both qualitative and quantitative factors into a single model, easily applicable for enterprise managers. Their choice becomes even more restricted when searching for decision – making models that incorporate possible geopolitical scenarios. The presented paper is an attempt of filling this gap with a proposal of a ready – to – use solution based on Analytic Hierarchy Process (AHP) methodology and Expert Choice software – a tool for AHP evaluations available on the market.

RESEARCH METHODOLOGY AND FACTOR SELECTION

The research thesis says that “*Identification and description of relations between geopolitical processes and development of international companies leads towards possibly optimal decision making in strategic and tactical fields*”. In other terms author’s concern is the influence of geopolitical determinants of international companies’ on their decision – making processes. The determinants in question are factors describing operating, host – country and global environments of international companies. This concept by Deresky (2010), called the Open Systems Model and dividing international company’s business environment into three mentioned layers, is the basis of the research methodology. The segmentation base comes from each layer’s distance to the enterprise in question. For the purposes of present research an initial assumption has to be made: global environment is treated as constant and in further analysis will be omitted as too turbulent and therefore unpredictable. Any economic forecasting can be performed for short- and middle – time periods only, due to the magnitude of forecasting faults coming from non - linear character of global environment and its big exposition to external shocks. The implications of 2008 global financial crisis seem to be the best example, when various prognostics and development plans of various industry branches had to be deeply revised, despite their large distance to banking sector touched by the crisis directly. For further explanations please refer to Gawlik (2007).

Multidimensional decision – making problems, such as the one analyzed here, require the application of systematic processes. Ogryczak (2006) distinguishes four main stages of such a process:

1. Problem definition – initial observation of actual state of arts, recognition that changes are needed and deeper analysis leading to articulation of expected final effect. In discussed research we will be searching for optimal combination of factors describing the development level of international enterprises in order to achieve possibly optimal decision – making results in geopolitically turbulent environments.
2. Problem formulation – identification of key elements of decision process in question, i.e. decision – maker, decision alternatives, external parameters, limitations of alternative decisions. Here decision – makers are 31 expert managers in preliminary factors selection phase and six carefully chosen experts in AHP evaluation phase. Decision alternatives are seven factors describing the development level of international enterprises while external parameters and limitations correspond to determinants of operating and host – country environments (or geopolitical processes). Methods of factors selection have been described in section 2.
3. Choice of a decision from available alternatives – main part of decision – making, very sensitive to subjective evaluations of the decision – maker. The proposed model aims at structuring and formalizing the decision – making in order to achieve a possibly optimal managerial decision and minimize the consequences of mistakes.
4. Implementation and control – final stage that allows implementing the results of decision – making into reality. Monitoring of implementation results, too often omitted in managerial praxis, brings important feedback that allows to make necessary corrections or even to start another decision – making cycle.

The research process consists of 3 phases – initial factor selection, preliminary factor selection and AHP evaluation. Initial factor selection consists of direct interviews with randomly chosen managers of internationally operating companies from top, middle and operational managerial levels. Author’s main concern were their decision – making habits, % of wrong decisions and willingness of using tools providing backup in decision – making processes. The questioning resulted in reducing initial 100 indexes of development of international enterprises to 18. Preliminary factor selection phase meant extracting 7 most useful indexes out of the 18 based on responses to a paper questionnaire by 31 expert managers. The questionnaire covered following issues: region of operation of analyzed companies; years of experience on the market; legal form; territorial coverage (regional, national, international, global); percentage of foreign capital involvement; number of employees and

employment structure (size of employment, type of contract, language skills, education); income from local, regional, international and global markets; level of profit / loss in past time periods; willingness of consulting services use; which weights should be attributed by company's management to particular indexes describing the actual economic situation and short – term prospects of respondent's business at times of crisis; how would their preference towards indexes' weights change in a situation of economic prosperity? 7 indexes obtained at this stage are flexibility, level of income, number of clients, survival ratio, operating profit, product diversification and structure of backlog of orders.

Classical Delphi method has been applied for data gathering at preliminary factor selection phase. Literature studies provide various definitions of Delphi. Adler & Ziglio (1996) understand it as “...a structured process for collecting and distilling knowledge from a group of experts by means of a series of questionnaires interspersed with controlled opinion feedback”. Duval, Fontela and Gabus (1975) underline the value of expert opinions for decision – makers in a situation of permanent lack of full scientific knowledge in their daily routine. Helmer (1977) adds that “*Delphi represents a useful communication device among a group of experts and thus facilitates the formation of a group judgment*”. A modified Pareto – Lorenz Diagram has been chosen for presentation and analysis of acquired data. According to Szumnarska (1996) “*The Pareto – Lorenz diagram [...] is applied to identify and measure the importance of analyzed issues. Only these problems will be identified, which although being in minority towards the rest (20%) bear a dominant influence on analyzed issue (80%).*” The Pareto – Lorenz rule applied to the present study can be transposed into a proposal to managers to use only these indexes of enterprise's economic condition that bring highest probability of optimal decision. Analyzing a bigger number of factors – including these less relevant – lowers the efficiency and will not bring higher decisions quality.

AHP evaluation phase – attribution of weights to final 7 indexes via application of Analytic Hierarchy Process by 6 expert managers obtained through Stratified Random Sampling (SRS) from 31 experts – respondents at preliminary factor selection phase. Bartlett's, Kotlik's and Higgins' (2001) SRS principles stating that “*population's division into strata has to be made in such a way that every element belongs to one strata only, but at least to one of them. Various strata have to be uniform and show some significant differences between each other*” have been maintained. This method allowed the division of entire sample population into strata (layers). Division criteria match Ackoff's (1999) levels of management: Top management (strategic) – enterprise's managerial board, making strategic, tactical and operational decisions, controlling all functions of the real sphere; Middle management (tactical) – managers of most important organizational cells, making tactical and operational decisions and supervising most of real sphere functions; Operational management (operational) – directors of operational cells, their decisions have an operational character and in most cases touch one specialized function of real sphere.

Two independent expert groups have been obtained via use of SRS method. First group consists of 3 managers from top (strategic) managerial level, second of 3 managers from middle (tactical) managerial level. Focusing on two highest managerial levels only (strategic and tactical) seems justified by the fact that the presented research aims at anticipating geopolitical processes when making managerial decisions, which is less likely to happen at lower managerial positions, such as the operational level. Strategic level experts: CEO of a fast growing international trade company that adopted franchise as development method, based in 100% on Polish capital and operating in food industry; CEO of international consulting company specialized in emerging markets, with mixed American – British capital, also issuing its own market analyses; Director of Board of Managers of a culture – tourism institution registered under legal form of LTD, noted on UNESCO list of World Cultural Heritage, with vast experience in international management and enterprise debuts on stock exchange markets. Tactical level experts: Administrative Manager for Central- and Eastern Europe (CEE) working for an international corporation – leader in chemistry branch; Chief of Internal Audit and Controlling Office of biggest CEE oil trust with professional experience acquired at Wall Street; Managing Director of an independent record label, radio station (4 channels) and promotional agency with business cooperation with companies located in 64 countries.

All methods above can be understood as preparative steps for crucial part of presented research, which has been achieved through use of Analytic Hierarchy Process. AHP is a tool enhancing decision – making processes. Its application seems to be the most reasonable in situations when decision problems are characterized by high level of complexity. AHP can be applied only in cases when problem structure can be presented as

hierarchical and where upper hierarchy elements do not interact nor influence lower hierarchy elements (Saaty 2001). In frames of AHP method experts from both managerial groups have been asked to perform pair – wise comparisons of suitability of 7 indexes determining the operational and host – country environment of international companies (extracted at former research stages) for decision – making purposes. Separate research has been performed on each managerial level (strategic, tactical). The outcomes of the research in question have been presented below.

THEORETICAL ASPECTS OF MODEL DESIGNING

All models, including decision – making ones, are simplifications of multidimensional reality. As such they can only represent chosen aspects of analyzed problems. Ogryczak distinguishes following types of models:

- Verbal (descriptive and iconic) – verbal models describe model’s features and interdependencies, iconic models use graphical elements to show some links directly, but without conformity with any scale.
- Analog (physical, graphical) – analog models preserve important features of original objects, but their utility for decision – making seems much lower than the one of graphical version.
- Symbolic (formal, mathematical) – symbolic models are a formal notation of chosen features and interdependencies with use of abstract symbols and relations. Mathematical models can be further divided into static (omitting time span) and dynamic (multidimensional, including changes and decision – making results after time periods). Stochastic and deterministic – stochastic models anticipate the uncertainty of data, results and risk management of taken decisions, whereas deterministic models omit all uncertainty aspects treating all parameters and results of the model as determined values (Ogryczak 2007).

Last group of models shall acquire more interest in frames of current analysis. When choosing an appropriate model type for a given decision – making problem always same concern arises: whereas statistical models are easier to apply, they can be only used in situations when decisions cover short time horizons only. Dynamic models seem to be more appropriate then, but at the same time they are much more complicated and difficult to apply. Same situation is valid when talking about deterministic and stochastic models. Whereas first ones can be easily applied in stable environmental conditions and short time horizons, only the second group provides inclusion of enough parameters (i.e. changes in time) in order to minimize the uncertainty of decision – making. At the same time they are way more complicated both in elaboration and implementation phases.

Besides a large number of criteria that should be taken into account when making decisions and a low level of problem structuring one of the main problems that arise when elaborating a mathematical decision – making model is the question of time span of performed analysis. This concern includes not only “freshness” of gathered data, but also time restrictions when obtaining and analyzing the results. Therefore a striking contradiction arises: managers need fast and effective decision – making tools, but at the same time they would like their models to be based on simplified criteria, that just need to omit some of problem’s interdependencies and features. Last, but not least – the so called human factor. Ogryczak (2009) indicates an outstanding difficulty in modeling manager’s preferences basing on his/her psychological features. The author wants to add another issue arising at final stage of problem solving – alternative choice and its costs. In order to obtain equal chances, at first instance decision alternatives should be easily comparable between each other, which seems to be a major difficulty in most descriptive models. Finally, at most decision – making processes it seems reasonable to search for a compromise between simplified and complicated types of models in order to acquire a model close enough to complex economic reality, but limited enough to make its application and outcome analysis possible. The author believes that some of these problems can be solved by applying instruments that transform quantitative decision criteria into qualitative ones, such as the Analytic Hierarchy Process.

DECISION – MAKING MODEL PROPOSAL

We are building a symbolic mathematical decision – making model composed of two parts: factual- and preference sub – models. The factual sub – model represents all interdependencies inside decision problem’s environment, whereas the preference sub – model shows its utility only later, when analyzing decision process’ outcome and building possible scenarios. Ogryczak (2009) proposes 3 phases of symbolic model designing:

identification of model variables; definition of dependencies between variables; determining of types of variables and their interrelations. Consecutive steps of the design process together with assigned determinants of its geopolitical environment have been presented below:

Identification of model variables:

- External parameters:
 - Deterministic: $A = \{a_i\}$, $i = \{1, 2, \dots, 5\}$; $B = \{b_l\}$, $l = \{1, 2, \dots, 6\}$ – determinants of operating environment a_i (legal regulations, culture in organizational aspect, skills, social responsibility, ethics); determinants of host – country environment b_l (economic-, political- and technological factors, culture in individual aspect, subsidiary & host – country interdependence); k – coefficient representing a general number of wrong managerial decisions (% value taken from interviews at initial factor selection phase, empirically between 10% and 20%); y_O , y_H – total number of managerial decisions taken inside operating- and host - country environment (respectively). External parameters are significant, but out of decision maker's control.
 - Probabilistic: d_O , d_H – external disturbance coming from operating- or host - country environment;
- Decision variables: $X = \{x_j\}$, $j = \{1, 2, \dots, 7\}$ – indexes describing the development level of international enterprises (flexibility, level of income, number of clients, survival ratio, operating profit, product diversification, structure of backlog of orders). Under control of decision – maker.
- Variables of state:
 - Main function: $Y = \{y = f(x)\}$ – final effect of decision – making in form of managerial decisions or more precisely an aggregation of all possible combinations of decision variables together with their weights. Obtained decision – making function can further become subject to optimization.
 - Main function's components: C_O , C_H – correct decisions taken in operating- or host – country environment (respectively); W_O , W_H – wrong decisions (*per analogiam*).

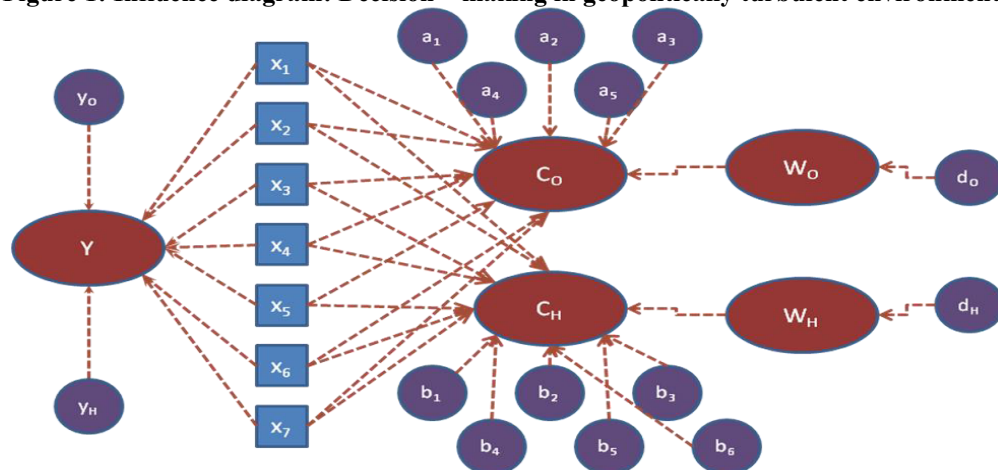
Definition of dependencies between variables:

- Functions – a correct choice of weights of indexes (decision variables) allows to anticipate changes in environmental factors (external parameters) and achieve an optimal decision – making level (state variables);
- Relations – not all dependencies between model variables can be represented as functions (values of some variables can be attributed to more than one variable or one set of group of variables). In such cases discussed phenomena become relations – given variables can represent deterministic or probabilistic interdependencies.

Determining of types of variables and their interrelations (possibly in form of an Influence Diagram – Fig. 1):

- Deterministic – straight lines on Influence Diagram;
- Probabilistic – presented with use of broken lines.

Figure 1: Influence diagram: Decision – making in geopolitically turbulent environments



Source: own elaboration

The dependency between random state variable representing a managerial decision and a decision variable representing weights of indexes to rely on could be named as probabilistic, because of possibility of

sudden changes in external variables, but as this probability is very low, we assume this relation to be deterministic. Thus the proposed decision – making function can be formulated as follows: a variable of state representing a decision taken by a manager of an international enterprise is a function of environmental determinants (external parameters of operating- and host - country environments) and a proper choice of weights of indexes describing the development level of this enterprise (decision variables). In mathematical notation this sentence takes the following form:

$$Y = y_O (C_O - W_O) + y_H (C_H - W_H) \quad [\text{Eq. 1}]$$

Eq. 1 – a possibly optimal managerial decision is a sum of weights of all correct decisions (C_O) minus all wrong decisions (W_O) taken inside operating environment ($.._O$) multiplied by their sum (y_O) plus weights of all good (C_H) minus all wrong (W_H) decisions taken inside host - country environment ($.._H$) multiplied by their sum (y_H). The weights can be obtained in a qualitative - to - quantitative transposition process through application of AHP method.

$$C_O = \sum_{i,j=1}^n a_{ij} x_j, \text{ where } i = \{1,2,...,5\}, j = \{1,2,...,7\} \quad [\text{Eq. 2}]$$

Eq. 2. – a correct decision taken inside the operating environment (C_O) is a sum of weights of all arithmetic products of determinants of operating environment (external parameters a_{ij}) and weights of indexes describing the development level of an international enterprise (decision variables x_j).

$$W_O = k d_O \quad [\text{Eq. 3}]$$

Eq. 3. – a wrong decision taken inside the operating environment (W_O) is the effect of a random external disturbance coming from this environment (d_O) augmented by an empirically determined coefficient k representing a general number of wrong managerial decisions. Occurrence of disturbance cannot be foreseen due to its probabilistic nature.

Equations for host – country environment can be deducted *per analogiam* and have been presented below:

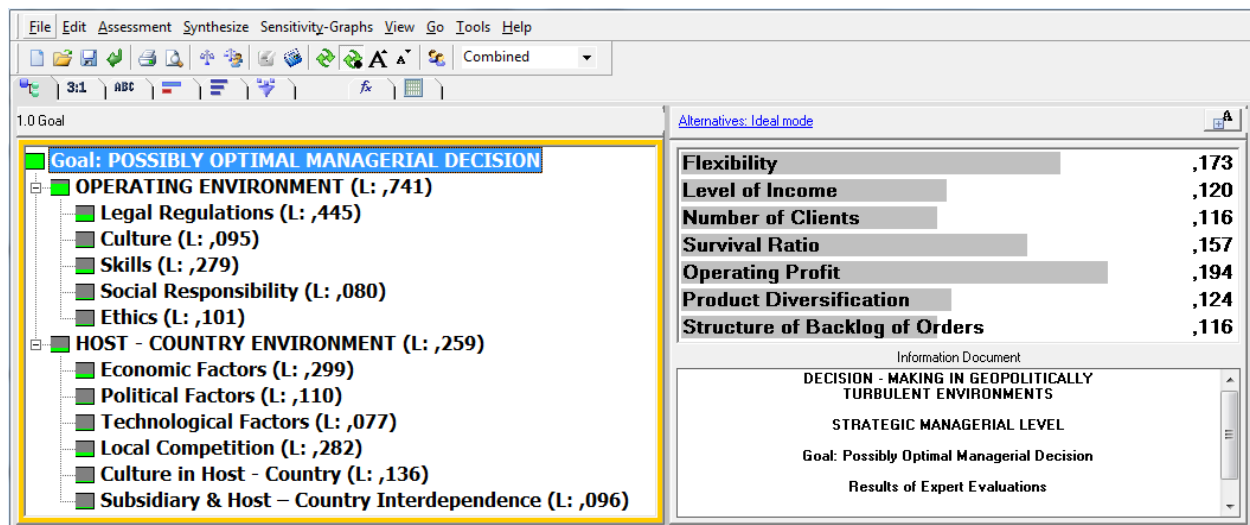
$$C_H = \sum_{l,j=1}^n b_{lj} x_j, \text{ where } l = \{1,2,...,6\}, j = \{1,2,...,7\} \quad [\text{Eq. 4}] \quad \& \quad W_H = k d_H \quad [\text{Eq. 5}]$$

Eq. 6 – function describing the decision – making process in geopolitically turbulent environments under adapted criteria (determinants of operating- and host - country environment):

$$Y = y_O \left(\sum_{i,j=1}^n a_{ij} x_j - k c_O \right) + y_H \left(\sum_{l,j=1}^n b_{lj} x_j - k c_H \right), \text{ where } i = \{1,2,...,5\}; l = \{1,2,...,6\}; j = \{1,2,...,7\} \quad [\text{Eq.6}]$$

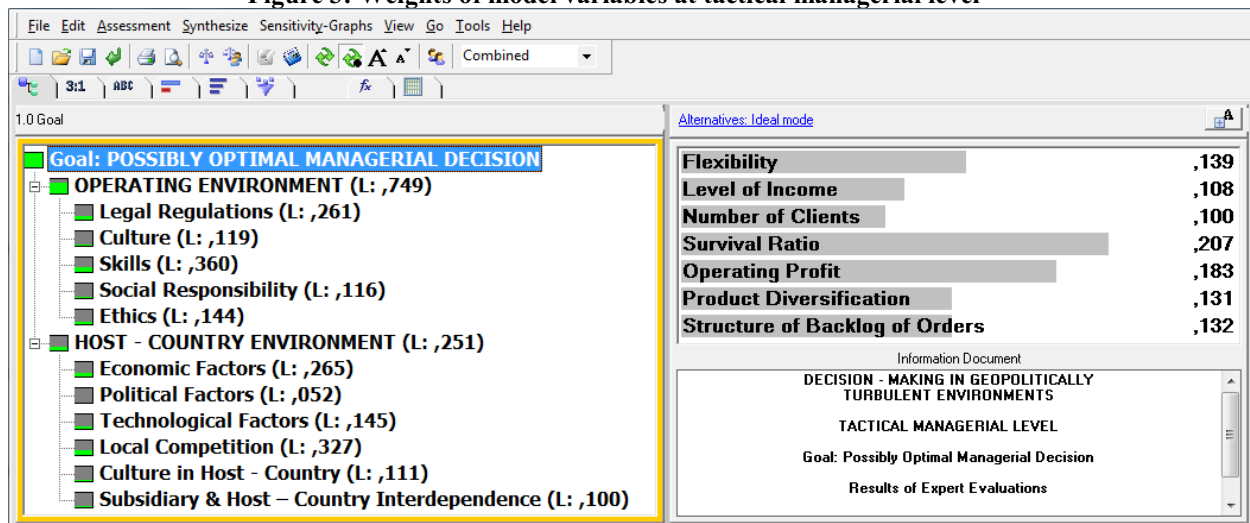
All model variables from Eq. 6 are of qualitative nature. Analytic Hierarchy Process allows creating a hierarchy of initially equivalent criteria through expert evaluations. Their numerical form is nothing but transposition of qualitative criteria into quantitative, thus measurable ones, which allows their incorporation into proposed decision – making model. Obtained evaluation results (quantitative – numbers) form weights of particular model variables and as such become direct results of discussed research. Empirical effects of expert evaluations on both managerial levels (strategic and tactical) have been presented on Expert Choice (ver. 11.1.3805) screenshots below (Fig. 2 & 3).

Figure 2: Weights of model variables at strategic managerial level



Source: own elaboration based on top – management expert evaluations

Figure 3: Weights of model variables at tactical managerial level



Source: own elaboration based on middle – management expert evaluations

Relevance (weights) of particular indexes describing the development level of international companies (right screenshot window) under adapted criteria (left screenshot window), show that at strategic managerial level relying on operating profit, flexibility and survival ratio seem to be the most rational behavior when making decisions. At tactical managerial level same factors should attire decision – maker's attention, but their order differs: survival ratio, operating profit, flexibility. Due to lack of space and this paper's purpose, which most of all was the proposal of a general decision – making model in geopolitically turbulent environments, further analysis of expert evaluations presented above as well as their sensitivity graphs will be available in author's upcoming publications.

CONCLUDING REMARKS

The proposed decision – making model is the effect of five years of research. Due to space limitations only basic assumptions and reasoning that lead to model elaboration could have been presented. The path towards actual state of research can be followed in author's former publications. Nonetheless, it seems evident that a proper selection of a mix of indexes describing the development level of international companies assures a

possibly optimal level of managerial activity under pre – assumed conditions of decision – making, here under determinants of geopolitical environment of the company in question.

The presented decision – making function can be subject to: optimization – i.e. optimization of decision – making effects, where the decision – maker tends to bring the weights of correct decisions in operating- and host - country environments (C_O , C_H) to highest possible levels (in other terms to make their share in general number of decisions taken in both environments (y_O , y_H) the biggest possible); minimization – when the manager aims at lowering wrong decisions' risk by trying to minimize weights of wrong decisions (W_O , W_H) in both environments or to lower their share in general number of decisions (y_O , y_H). Both possibilities can be achieved via mathematical procedures of optimization and minimization of geometrical functions and deserve separate publications.

Possible applications of the model fall far outside geopolitical decision – making. It can be applied to every decision problem, where decision – maker's criteria can be evaluated with a qualitative scale only. AHP evaluations allow their transposition into quantitative criteria that can be introduced and analyzed with proposed solution. It seems interesting and justified to continue the studies on decision – making anticipating geopolitical changes in the modern world. Especially promising seem the opportunities of further development of reasoning presented here and its extension to fuzzy logic solutions, namely the Analytic Network Process, which allows taking into account also non – linear disturbances from geopolitical and other fields.

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MECHANISMS OF OVERCOMING CHALLENGES IN HEALTH CARE FINANCING IN THE PUBLIC SECTOR – NAMIBIA

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ABSTRACT

Health care service delivery depends on the economy of a given country. Health is the fundamental right of every citizen to participate in the national development process. Countries around the globe have intensively worked to align their health needs with the portion of the national health budgets. The government investment in health is focusing on public health programmes and prevention of communicable and non-communicable diseases. The paper interrogates how Namibia is addressing the problems of health financing. It will also compare other member SADC states with Namibia to find solutions to pertinent challenges in health care financing.

These are several challenges which are embedded in mechanisms of the distribution of funds. These are aspects such as funding bodies and their mandate, implementing agencies, control mechanisms, demands on the ground, responsibilities of the health sector (Public, private, mission) and total envelope of resources.

INTRODUCTION

Health Care Service delivery depends on the economy of a given country. Health is the fundamental right of every citizen to participate in the National development process. Countries around the globe have intensively worked to align their health budgets. It has been observed over the past decades that the health budgets in many countries have increased tremendously. However some countries have lacked behind, obviously because of several factors such as drought, civil wars and disasters. Several countries have put mechanisms in place to track financial status of their health budgets. The mechanisms are examples such as: national health accounts, appointment health economics in the Ministries of Health revision of health care systems and strong advocacy for increase health care funding.

The government investment is health care that focuses on public health programmes and prevention of communicable and non- communicable diseases. The paper interrogates how Namibia is addressing the problems of health financing. It will also compare other member SADC states with Namibia to find solutions to pertinent challenges in health care financing. There are several challenges which are embedded in mechanisms of the distribution of funds. There are also aspects such as; funding bodies and their mandate, implementing agencies, control mechanisms, demands on the ground, responsibilities of the health sector (public, private, mission) and the total envelope of resources. The other issues are whether Namibia is honoring it's international continental and regional commitments in terms of health financing in the final analysis the discussions will be transformed into recommendations.

KEY ISSUES RELATED TO CURRENT HEALTH FINANCING

The World Health Organization's 2001 National Health Accounts (NHA) database highlights the following key issues in relation to health care financing in Africa. The current level of health care funding from government tax

revenue is relatively low in most African countries. In the majority of countries (about 60%), the health sector share of total government expenditure is below 10%.

There is still a reasonably high level of reliance on donor funding in African countries. Donor funding accounts for over a quarter of total health care funding in about 35% of countries, with 5% of countries having more than half of all health care funding coming external sources. There is limited insurance coverage in African Countries, and Namibia is not an exception especially in relation to mandatory health insurance. n

However, community pre-payment schemes have been on the increase in recent years. One of the single largest sources of financing is that of out-of-pocket payments, which exceed 25% of total health care expenditure in more than three-quarters of sub-Saharan African countries. Out-of-pocket payments include user fees at public sector facilities as well as direct payments to private providers. Ranging from doctors working in private practices to informal drug sellers and traditional healers. From a poverty-related perspective, the most concerning aspects of current health care financing in African countries is the large share of out-of-pocket payments. Concerns about the adverse equity impact of user fees have been growing throughout the 1990s, but a more recent research focus on the effect of health care costs on household livelihoods has placed this financing mechanism in the international spotlight.

For those who seek health care when they are ill, the direct costs of obtaining such care can account for substantial proportion of total households' incomes in the African countries included in one study (Makinen et al, 2000). When other direct costs associated with obtaining care (such as transport costs) are included, some studies have found that total direct costs can be as high as 10% of household income (Lucas and Nuwagaba, 1999). The direct costs of long-term fatal illness, particularly AIDS, have the most devastating effects on households. A study in Tanzania has estimated that the direct costs of treatment for a person living with AIDS during a six month period is about 64% of per capita household income for the same period (Tibaijuka, 1997). There is consistent evidence that the heaviest burden of health care costs, particularly those that are considered catastrophic, falls on the poorest households (Xu et al, 2003). For example, a study in Malawi found that the cost of malaria to households was over 7% of their income (Etting et al, 1994).

One of the first strategies of coping with the costs of illness is to try to avoid these costs altogether "by modifying illness perception (the phenomenon of ignoring diseases)" (Sauerborn et al, 1996). The poor often delay seeking care until an illness is severe, which may ultimately lead to higher costs of treatment (e.g. if the person has to be admitted to hospital). Self treatment using allopathic or traditional medicines available at home, or purchased from a drug seller or traditional healer at a relatively lower cost than at public facilities (and sometimes on credit), is another frequent strategy for avoiding or at least minimizing costs (Mcintyre et al, 2005, Save the Children, 2005). Where cost are incurred, households are coping strategies such as reducing consumption (including of basic necessities), selling assets and borrowing (Mcintyre et al, 2005). A recent study in Ethiopia found that households which had used available cash to pay for health care had intended to use the money for basic consumption needs including food, fuel, clothes and education (Russell and Abdella, 2002). Assets sold may include those that are essential to the household's future livelihood such as livestock and land. Borrowing to cover health care expenses is extremely widespread in Africa, and while some are able to access loans from family and friends at low or no interest, others have to accept loans at ruinous interest rates.

There is growing international evidence that health care costs can plunge households into poverty and the likelihood of a poor household ever being able to move out of poverty diminishes when confronted with illness-related cost (Whitehead et al, 2001). Recently, the WHO has estimated that 100 million people become impoverished by paying for health care each year and that a further 150 million face severe financial hardship from health care costs (World Health Organization, 2005). While household impoverishment through health care costs is particularly related to catastrophic illness, even routine ambulatory care with so-called nominal fees can worsen the situation of extremely poor households.

The available evidence on the impact of illness and health care costs at household level clearly demonstrates that the most vulnerable households face enormous constraints in accessing care when they are required to pay user fees, particularly where geographic access is poor and other costs of treatment seeking are high (e.g. for transport). With the high levels of poverty throughout Africa, household livelihoods are so fragile that if a

member does have to use health services and pay fees at the time of service use (whether to a public or private provider), the household may have to take actions to access cash that could lead to further impoverishment.

The evidence about the adverse consequences of user fees for household livelihoods is so overwhelming that even the arch protagonist of user fees in the 1980s and 1990s, the World Bank, has acknowledged that “Out-of-pocket payments for health services- especially hospital care- can make the difference between a household being poor or not” (Claeson et al, 2001) and indicates that alternative financing mechanisms may be preferable. Within the last year or two, there have been growing calls for removal of user fees at public sector facilities in Africa, particularly at the primary care level, from organizations such as Save the Children and in influential reports such as that by the Commission for Africa (Commission for Africa, 2005). The next part of this paper briefly considers recent development in health care financing within the African region, particularly in relation to user fee removal initiatives and the extent to which sustainable alternative mechanisms that could afford financial protection for households, including the poorest, are developing (Xu et al, 2003).

RECENT DEVELOPMENT IN HEALTH CARE FINANCING IN AFRICA

Tax funding is a core foundation of all African Health systems. The availability of adequate tax funding is critical if problems in equitably accessing health care are to be addressed. For example, tax funded health budgets are critical in promoting an equitable geographical allocation of recurrent resources. In particular, general tax revenue (sometimes combined with donor funds) is the only funding source that can be actively redistributed between geographic areas in order to promote equity. Tax funding can also significantly reduce financial access barriers, particularly through reducing out-of-pocket payments. The WHO NHA database shows that in African countries where there is a commitment to devoting a relatively large share of government resources to the health sector, the burden of out-of-pocket payments is kept relatively low. While it is difficult to increase tax revenue in African countries due to the limited tax base it is often also not feasible to improve tax compliance. In addition, there is scope for advocacy for an increased share of budgets for the health sector.

No African country has reached the target of 15% of government budget being directed to the health sector, as agreed to by African Heads of State in the Abuja Declaration (OAU, 2001). One of the main constraints to achieving this is the high level of external debt experienced in many countries that translate into levels of interest payments and debt repayments that consume a considerable share of government budgets, given that they result a large share of government budgets. Situations of conflict are often another constraint on increasing health's share of budget to the health sector (Nigeria, Sudan, Cote d'Ivoire, Eritrea, Ethiopia and Somalia) have very high levels of indebtedness and/or conflict situations. Debt relief efforts in many instances are wholly inadequate. For example, Ethiopia has an external debt amounting to US\$6, 845 million, which is slightly more than 100% of Gross Domestic Product (GDP). Debt relief under the HIPC initiative in 2001/02 amounted to \$50 million (0.8 percent of GDP) and in 2002/03 totaled \$62 million (0.9 percent of GDP) (IMF and IDA, 2004). Vastly improved debt relief, and indeed debt cancellation (as has begun to happen), should be advocated for, which would enable governments to devote more of their limited tax funding to the provision of health and other social services.

DONOR FUNDING

Donor funding can have a similar, and very important, impact in addressing health service equity constraints to that described above for tax funding, particularly if donor funds are made available through pooling mechanisms as part of a health sector Sector Wide Approach (SWA). However, there are concerns about some donors' recent move away from health sector pooled funding to general budgeting process). Part of the concern is whether the health sector will receive a 'fair share' of donor funds under this arrangement. Another concern is that this could potentially undermine the role of the Ministry of Health in crucial areas of health policy, particularly in relation to health care financing. Given that Ministries of Finance wield considerable power in many African governments and are frequently more responsive to donor demands than sectoral Ministries, it is possible that donors could attempt to impose their health sector priorities (especially their views on health care financing strategies) by applying pressure on Treasury officials who in turn could apply pressure on Ministry of

Health officials. There are also concerns about the unreliability of this particular source of financing and a growing awareness of the need to find sustainable domestic financing alternatives.

HEALTH FINANCING

In recent years, there has been a growing emphasis among international organizations on health insurance as a financing mechanism. For example, the principles for fair financing in the WHO's 2000 World Health Report, such as revenue collection in the form of prepayment, pooling resources to promote cross-subsidies and strategic purchasing, imply that the main alternative to tax funding should be some form of health insurance (World Health Organization, 2000). The World Bank also explicitly suggests pursuing insurance options, instead of out-of-pocket payments, in its handbook on the health component of Poverty Reduction Strategy Papers (Claeson et al., 2001). Most recently, the 2005 World Health Assembly passed a resolution encouraging member states to pursue social and other forms of health insurance.

Instead, the option of community-based pre-payment schemes is rapidly gaining favour. These schemes are more widespread than formal sector private voluntary schemes, particularly in West Africa but also increasingly in East Africa and to a more limited extent in Southern Africa. As these schemes are funded by annual or more frequent contributions, but do not require payments at the time of using health services, they lower financial barriers to access. In this sense, they are a preferable alternative to out-of-pocket payments. However, some are advocating these schemes as the new 'one size fits all solution' to the health care financing gap in African countries (previously the 'one size fits all solution' was that of user fees). While there are certainly considerable potential benefits of such schemes, there is still quite weak empirical evidence on what works and what doesn't.

A recent survey of literature on community-based pre-payment schemes highlights that population coverage by these schemes has remained relatively low and that the most vulnerable households are not currently incorporated (Ekman, 2004). Thus, most of these schemes have small risk pools and limited cross-subsidies. Another recent critical assessment of such schemes highlights the importance of better understanding how they interact with other elements of the health care financing system (Bennett, 2004).

The geographic distribution of public sector health care resources has been the major focus of debates about addressing health sector inequities in South Africa. Less attention has been paid to the equity implications of level of care resource distribution. Level of care issues, particularly the extent to which primary care services are prioritized, are of importance from an equity perspective as much of the morbidity and mortality in South Africa is attributable to potentially preventable diseases (McIntyre et al 1995; McIntyre 1997a). Although access to health services is not the only determinant of health status, it has been shown that excess suffering and premature death could be reduced at relatively low cost through primary care interventions, such as increased coverage by preventive programmes and improved access to basic medical care (World Bank 1993 and 1994). The extent to which, and the speed with which, the public health sector can redress these geographic and level of care inequities is constrained by its heavy dependence on general tax funding (McIntyre 1995; Makan et al 1996; McIntyre 1997b). Hence, the need to explore alternative financing mechanisms (such as increased user fees at public hospitals for insured patients and a social health insurance scheme) is a matter of some urgency. All of these issues are considered in greater detail in later sections. The SADC Region Poverty Profile is aiming at describing the nature, magnitude, dimensions and patterns of poverty in the region. This is a summary of the background document to the SADC international Conference on Poverty and Development.

ECONOMIC GROWTH AND DEVELOPMENT

After many years of economic instability, the SADC region is now experiencing significant levels of economic recovery and growth. The recent pace of economic expansion is also boosted by the favourable global market conditions, favourable commodity prices and prudent national macro-economic policies. The region experienced an average growth in real GDP in 2005/2006 of 6.2 and 6.0 percent respectively. Growth rates varied widely from 20.6 in others to the lower end of 5 percent in others. The accelerated real GDP growth in most of the SADC countries is attributed to the good performance of the agricultural sector due to good weather conditions and growth in the mining sector which in turn stimulated the manufacturing sector. Botswana, South Africa and Mauritius continue to register higher per capita gains in the region in the manufacturing sector. There is also a

notable increase in capital expenditure in most countries in the region as opposed to household and Government consumption expenditure. (*Di McIntyre, Luvulo Baba, Bupendra Makan*).

OUT-OF-POCKET PAYMENTS, ESPECIALLY USER FEES

The key development in relation to user fees in recent years is the removal of fees for some or all health services in some African countries, such as South Africa and Uganda, and the mounting pressure on other African countries to adopt a similar policy. The experience in countries that have removed fees was that there were rapid and large utilization increases, especially for the poor. For example in Uganda, an extensive study using the first and second Ugandan National Household Surveys (conducted in 1999/2000 and 2002/03 respectively) and data from the Health Management Information System highlighted that the poor had particularly benefited from the removal of fees (Deininger and Mpuga, 2004). A key finding of this study was that although there were substantial differences in use of health services when ill between the rich and the poor while fees were in place, these differences were completely eliminated in the case of children after the removal of fees (although inequities in service use continue for adults).

However, the experience of fee removal has not been entirely positive and highlights the need for careful planning and adequate resource improvements before such a dramatic policy change is introduced.

In the South African experience, the 'free care policy' was publicly announced before it had been communicated to front-line health workers and was introduced with immediate effect. Health workers said they were not adequately informed or involved, and were thus unprepared for the utilization increases. Many health workers resented the policy as it had increased their workload and because they felt they had not been consulted or had an opportunity to plan for its implementation (McCoy, 1996). Similar adverse impacts on staff morale were reported in Uganda, related to the loss of fee revenue which had previously been used to supplement staff salaries as well as the fact that workload had increased by about 47% (Burnham et al., 2004). In the South African case, drug supplies were quickly exhausted as utilization increased. With the introduction of 'free care' in Uganda, there were simultaneous and substantial increases in district health service funding (Yates, 2004) which mitigated some of the problems that arose in South Africa. However, much of these additional resources came from external sources, and there are concerns about the sustainability of these levels of funding if external funds are withdrawn. In essence, the experience to date demonstrates the need for detailed and adequate planning, careful and active management of the responses of health workers and managers, and improved resource availability (particularly domestic resources) if fees are removed, not only to offset any revenue lost, but more importantly to continue to provide adequate quality services in the face of increased utilization.

HEALTH

Health is ethically good to the extent that it contributes to the realization of the ultimate end sought—happiness, capabilities and functioning's, fulfillment of a rational life plan, etc. Among the various "goods" that contribute to the ultimate end, health is often accorded special ethical significance because it is necessary to achieving most intermediate and ultimate ends; ill health and injury are unpredictable and largely beyond the control of an individual (most of those who fall ill have done nothing knowingly to deserve or cause the ill health); and ill health represents a time of considerable vulnerability and dependency on others, giving society's response to those who suffer illness and injury particular ethical salience.

But simply arguing that health is ethically important is not enough. A crucial question is: what does an ethical analysis demand about the just level and distribution of health in society. Maximising the level of health in society is unlikely to be ethically justified given that health is only one contributor to an ultimate end and that health cannot be directly redistributed among members of society (though of course it can be indirectly redistributed via the allocation of health-influencing resources). Welfarist reasoning cannot identify the just distribution of health a priori because the just distribution depends on the structure and distribution of preferences in society with respect to health and other things. The just level and distribution of health is the one that maximizes average utility among members of society. If one assumes diminishing marginal utility, then utilitarianism would have a bias toward more equal distributions of health (up to the point where the additions to utility from this are offset by reductions in utility from transferring additional resources from other activities to

health). From an extra-welfarist health perspective, Culyer and Wagstaff argue that the only ethically defensible distribution of health is an equal distribution, subject to some side constraints such as the imperative not to deliberately reduce one person's health status to equalize health levels. Rawls did not include health or health care in his set of primary goods, but more recently he has explored how health might be integrated into his framework.¹² Rawls's difference principle would permit a deviation from an equal distribution of health if it improved the health and wellbeing of the least advantaged member of society; it is silent on the characteristics of the distribution above this minimum level. Analysis within an economic framework of the demands of a wide variety of equity criteria with respect to the distribution of health among members of society.

ACCESS TO AND UTILIZATION OF HEALTH CARE

Health care, which is generally defined to include those goods, services and activities the primary purpose of which is the maintenance or improvement of health, is one of a complex array of factors that determine health. Health care as such is not intrinsically ethically valuable; it is ethically valuable because it contributes to health. From this it follows directly that the ethically justified distribution of access to and utilization of needed health care is the one which generates the desired level and distribution of health. This conclusion rests on two controversial, often confusing concepts—access and need—central to many discussions of ethics and health care. Economic reasoning has contributed in recent years to clarifying access, need and competing definitions of these concepts (see, for example Culyer and Wagstaff, Mooney, Le Grand, Pereira, and Wagstaff and Van Doorslaer even if it may not have generated greater consensus. Economics identifies access with the concept of feasible choice sets. A person's feasible choice set includes all those things it is possible for them to obtain or accomplish given their resources and constraints beyond their control. Therefore, access is greater in situation B compared to situation A if the feasible choice set under B is larger than (and fully encompasses) the feasible choice set in A.

Two individuals have equal access if they have identical feasible choice sets. Empirically measuring access remains a tremendous challenge, but this analytic approach provides considerable insight into the implications for resource allocation of calls for differing types of access. It is not access to or utilization of health care services as such that is ethically justified, but access to or utilization of needed health care services. The notion of need is highly contested, but economists generally favour instrumentalist conceptions of need: a need exists when there is a good, activity or service that is effective (and some would add cost-effective) in attaining an ethically legitimate end for a person. The question of effectiveness is in large part technical; the question of what constitutes an ethically legitimate end is in large part social, political and moral. Unlike most areas of economics, for which goods are assumed to contribute directly to welfare, the technical production relationship between health care and health allows for a more precise use of the concept of need than is possible even in other areas where needs talk is prevalent (for example, housing, food, education). This production relationship means that a health care need is very specific—one needs a specific health care service that has been shown to be effective for the particular health problem, for which there are often few substitutes.

Unlike most goods, health care itself is often a “bad” that causes considerable short term pain and suffering, but which is consumed only because of its expected health benefits. This provides a sounder basis for third party judgments of need, especially need in relation to socially defined objectives. The fact that the primary purpose for consuming health care is to improve health and that there is a basis for third-party judgments of need (as opposed to mere wants) generates good-specific distributional concerns about health care. Welfarist frameworks model this through utility interdependences that generate good-specific caring externalities associated with health status and the consumption of needed health care. That is, person A's utility depends in part on person B's health status and, by implication, her consumption of needed health care; where access itself is the focus of concern, person A's utility depends in part on person B's access to health care (though person B may choose not to consume even needed care). Welfarists seldom investigate the underlying source of such utility interdependence (for example, the view that health care is a right, notions of solidarity with other members of society, etc), but regardless of that, such externalities imply that within welfarist frameworks broad access to and utilization of needed health care may be ethically justified.

NAMIBIAN SITUATION

BACKGROUND

At independence in 1990, the Government of Namibia inherited a fragmented health care and social welfare system, which was administered by Second Tier Authorities that created eleven different administration and parallel programmes. One of the first tasks of the new Government was to bring together their Second Tier Authorities, leading to the creation of the Ministry of Health and Social Services. The primary health care approach adopted by the new Government provided an opportunity for the restructuring of the public health sector system based upon the principles of equity, affordability, involvement of communities and participation of other sectors in the provision of services. This resulted in a rapid transformation of the sector with the creation of new structures including new directorates that enable the Ministry of Health and Social Services (MoHSS) to unify the fragmented services and to pay special attention to disadvantaged regions and difficult to reach communities. All these changes were first embodied in the Policy Statement of 1990 and then subsequently in the Policy Framework of 1998 (Ministry of Health and Social Services, Health and Social Services System Review, 2008).

NATIONAL HEALTH ACCOUNTS AS VEHICLE IN FINANCING

National Health Accounts aim is to centralize and oversee expenditures for activities whose primary purpose is to improve and maintain health for the country during a defined period. It looks at the value of consumption of the goods and services of interest. The main aim of NHA is to track spending on rendered health services and products. NHA defines boundaries in terms of space and time. According to World Health Report (WHO 2000) Namibian health system consumed around 7.5 percent of gross domestic product (GDP). The country has also high levels of inequalities in health and access to resources. The policymakers deemed it imperative to address the weaknesses of the health system. It is equally important to have reliable information on the sources and use of funds for health in the country. First round of NHA was undertaken in 2002 covering financial years 1998/99 to 2000/01. These results were used by the Government in the process of budgeting, especially to inform and direct regional directorates in allocation of funds. It is a needs-based resource allocation formula. After this initial round, NHA was not conducted until recent round in 2007. This round covered financial years 2001/02 – 2006/07. This NHA exercise included a greater number of stakeholders from public and private sectors. It has assisted in institutionalizing of NHA. Government of the Republic of Namibia has recognized the important role of health in the outcome of development. This translates into commitment to strive for achievement of health for all Namibians. The government has made health care accessible, affordable, acceptable and equitable based on primary health care philosophy.

DISEASE BURDEN

Namibia has experienced increase in deaths in HIV, diarrhea, pulmonary tuberculosis (TB), pneumonia and malaria in recent years. Health Information system has also revealed increase in respiratory system diseases, anemia, heart failure, malnutrition, hypertension and growing threat of non-communicable diseases (NCDs).

Major health issues are indicating that maternal mortality has increased sharply. In 2000 the ratio was 225/100,000 compared to 446/100 000 live births in 2006 (NDHS 2006). Assessment conducted in 2006, showed that the main direct causes are hemorrhage, eclampsia, sepsis, obstructed labor and HIV/AIDS. However, overall antenatal care attendance is high at 94.6% in 2006, whilst the attended deliveries are 68.2% in 1992 and 81.4% in 2006.

The country was also shook by the polio outbreak in 2006 when it was on verge of elimination of polio. The Expanded Program on Immunization (EPI) aiming at maintaining above 90% for all antigens in every district has only achieved 84% in 2006 for children age 12 months.

The other devastating disease is the HIV pandemic. It has a major impact on life expectancy thus threatening the socio-economic sector of the country. The sentinel sero survey of 2008 has showed a prevalence of 17.8% which is still very high. However the government has mobilized significant resources such as own resources, US

Presidents Emergency Plan for AIDS Relief (PEPFAR) and Global Fund to fight AIDS, Tuberculosis and Malaria to address the AIDS, Tuberculosis and Malaria to address the AIDS pandemic. There is a continued resource mobilization for assistance.

Tuberculosis has also become a major public health issue in Namibia and is compounded by the HIV pandemic. Currently the rate is at 765/100,000 which is the highest case notification rate in the world. The above-mentioned factors are to be taken into account if we have to make a difference in the health system.

HEALTH CARE FINANCING

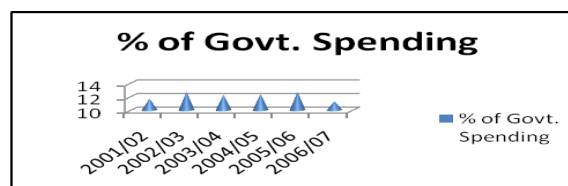
The Namibian Government has ensured to secure funds for MOHSS to fulfill its mandate. This funding is gradually increasing on an annually basis. It is a commitment and constitutional obligation, which the government has pledged to the Namibians. However the ever changing global environment is impacting on the resources allocation. The global economic recess also played a very negative role on the economies of the countries worldwide, especially the developing countries. Despite these setbacks Namibian government has continued to solicit funds.

FINANCING SOURCES

Namibia's health sector is financed by the traditional sources such as; public, companies and donors as well as households. The increase in contributions of different entities has increased 1.5 fold, whilst the companies spending remain relatively constant. It is important to take into account that churches and NGO's have also played a major role in the health care services delivery.

There is a variation in the financing from the various sources across the years. From the total amount of funds spend on health in 2006/07 44% came from public sources, 22.4% from donors 8.9% from companies and 24.7% from households (largely through insurance). The largest proportions of household expenditures were drawn from contribution to health insurance claims.

Figure 1: Government spending in percentage on health



From the figure it is clear that the highest percentage spend on health was observed in 2002/03 and 2005/06, but has declined in 2003/04, 2004/05 and drastically in 2006/07. This decline is due to global economic regression. However the Government has put mechanisms in place in order to address the situation vigorously. However, there was a short fall of spending levels pledge in Abuja declaration, in which Heads of States committed to spend 15% of their countries total public expenditure on health.

The Government of the Republic of Namibia has managed to allocate large amount of health resources between 2002/03 to 2005/06. The Ministry of health and Social Services funding comes principally from Central Government Revenue and Donors. Insurances are playing a great role in the financing and management of health financing. Household contribution to insurance companies has increased from 7% in 2001/02 to 37.4% in 2006/07. Donors have shifted their investment in health from Government to NGO's. Their contribution to Ministry of Health and Social Services has decreased from 59.1% in 2001/02 to 25.6% in 2006/07. The contribution to NGO has increase from 40.9% in 2001/02 to 72.9% in 2006/07.

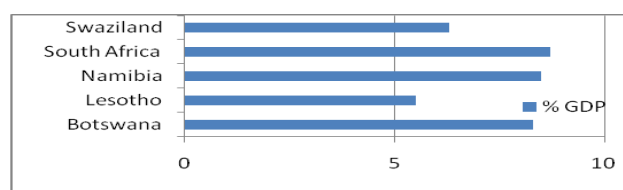


Figure 2: The percentage of GDP of BNLS Countries, 2005

In 2005 compare to its SADC countries Namibia was second in terms of GDP share allocation to health. South Africa has allocated in this particular year substantive funds to its health sector. This indicates that all SADC Countries had a short fall in terms of obligation to the AU commitments. This is ascribed to several factors such as; emerging diseases, floods, drought and immigration.

SERVICES DELIVERED WITH HEALTH FUNDS

Health funds are utilized to cover various categories of health care; inpatient care; outpatient care; preventative and public health services; and health administration. In-patient care includes; services delivered during overnight stays at health providers. It classifies total expenditure incurred throughout the in –patient visit including medical and diagnostic laboratories, hospital fees and salaries of health care professionals.

Out-patient care refers to services delivered by physicians that includes; ambulatory care system such as private officers and clinics. Preventive and public health services cover maternal child health care; family planning; counseling; social health programmes as well as prevention of communicable and non- communicable diseases.

DISCUSSION

Namibia with the attainment of independence in 1990 has pledged to its population quality health care service delivery. Throughout the years the government has demonstrated to commit itself to its obligation. The Namibians have not only enjoyed the freedom but have also taste the fruits of coverage of the health care system. Donor funding was quite increasing after independence, which supported most of the Primary Health Care (PHC) programmes in the country. Different donors focused on different programs; which also complement effective health care services provision. The donor funding has been changing significantly during the 2001/02 and 2006/07 years. Donor funding has been channeled mostly through NGO's of which Ministry of Health and Social Services received 14%. The NGO's and churches play significant role in health care organization and delivery which gives plurastic nature of Namibia's health system.

Government is the coordinator of the various players that determine where health resources are needed so that all health stakeholders are working toward common national goals. In that manner there is complementary aspect which avoids duplication and parallel efforts. Compare to some of SADC Countries Namibia has been doing relatively well. It is imperative that public-private in health care financing be strengthened. Cost sharing in health care will decrease disease burden and pressure on the public health system, which provide health care services to majority (80 to 90%) of the communities. Developing countries can learn from best practices and lessons from those advanced countries in this regard, supported by clear and sound policies that will support initiatives.

However household contributions have also increased substantially in 2006/07. Companies spending on health has remain relatively constant whereby the spending in 2006/07 has decreased in various functional categories. Their funds are largely utilized to finance curative care, purchase of medicine and administration.

CHALLENGES

There is a lack of:

- Accountability of FDC Holders,
- Commitment registers,
- Economizing committees,
- Technical staff for costing,
- Resource allocation criteria and
- Proper system of procurement and payment suppliers.
- Decentralization of health care services,
- Ever changing health profile of the population,

RECOMMENDATIONS

Namibia has to redouble its efforts to be responsive to the changing environments. The intersectoral collaboration has to be strengthened to ensure stakeholders mandate. Specific mechanisms to track where resources have to spelled out clearly to those mandated to take care of these aspects. Namibia has to strive to adhere to its international, continental as well as regional commitments.

The allocation of funds from the central government should be directed by disease burden and responsiveness to emergencies. Strengthening links with companies and private sector remains an issue that has to be addressed on a continuous basis. This will allow space for tracking of financing and spending. Proper institutionalization of national health accounts will serve as catalyst to assist the government in tracking of spending. Donor funding should be seen as complementary and should not serve as a dependency syndrome.

Churches and NGO's health care services should follow the guiding principles of the Central Government. Namibia must strive to adhere to its international-, continental- and national obligations. The Accountability of FDC Holders must be revise as well as commitment registers, Economizing committees, terms of reference of technical staff for costing, revision of resource allocation criteria and proper system of procurement and payment suppliers.

Collaboration between the stakeholders, especially the public private partnership should be strengthened. Private sector should be involved at all levels of health care, financing and accountability. All the partners must be involved in planning, monitoring and evaluation of the entire health system. Best practices should serve as a catalyst to create conducive policy environment as a directive.

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AN INVESTIGATION ON THE ORGANIZATIONAL HIV/AIDS WORKPLACE INTERVENTION PROGRAMMES VERSUS AFFECTED AND INFECTED EMPLOYEE NEEDS. CASE OF A TERTIARY INSTITUTION.

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ABSTRACT

HIV/AIDS and its impact is one of the major problems faced by organisations, firms have been taking direct or indirect steps to curb the impact of this disease. However irrespective of all these interventions, the epidemic and the issues it raises continue to test the essential skills of management since the problem is getting worse every day. A comparative study of the needs of infected and affected employees versus the programs at hand to curb the impact of the disease is crucial. A sample of 200 employees randomly selected from a tertiary institution will be used to gather data using a semi structured questionnaire as well as in-depth interviews. This will ensure program scale up for a more supportive, non- discriminatory work environment that can help HIV positive individuals and their families cope with the disease.

BACKGROUND/INTRODUCTION

HIV/AIDS has taken a terrible human toll, laying claims to millions of lives, inflicting pain and grief, causing fear and uncertainty both in the workplace and the society at large. According to Natrass (2004) HIV/AIDS has a negative impact on the organizational spending, especially considering the increased costs on medical aid benefits, funeral costs and deaths benefits. HIV/AIDS and its impact is one of the major problems faced by organisations today. Kramer (2001) indicated that, firms have been taking direct or indirect steps to curb the impact of this disease. However irrespective of all these interventions, Masibambisane (2001) commented that, the epidemic and the issues it raises will continue to test the essential skills and wisdom of management at all levels because the problem seems to be getting worse every day. Zelnick and Donnel (2005) suggested that a supportive, non- discriminatory work environment can greatly help HIV positive individuals and their families cope with the disease. Therefore, well planned HIV/AIDs workplace intervention programs are of crucial importance with the main purpose of the programs being to develop good practice models in HIV/AIDS prevention, care and support, in the workplace.

Chetty (2000) commented that being diagnosed HIV positive impacts the medical, psychological, social, spiritual, educational and economic life of the infected person, affected others and the community as a whole. According to Bartos and McDonald (2000), when initially confronted with existential confusion, many HIV positive people question the purpose of advancing their careers, some despairing that they will not have enough time to attain their goals therefore, such employees according to Hunt (2003) need psychological and financial support from the organisation rather than prevention programs. From this, it seems the needs of infected and affected employees are too broad for organisations to bear.

The United Nations General Assembly Special Session on HIV/AIDS (2002), highlighted that, workplace based HIV/AIDS programs need to address the following: 1) basic facts on HIV/AIDS, 2) specific work-related HIV/AIDS transmission hazards and safeguards, 3) The promotion of condom usage, 4) Voluntary HIV counseling and testing, 5) Diagnosis and treatment of sexually transmitted infections and finally provision of HIV related drugs at an affordable price. The question that remains unanswered is whether these aspects are covering all the needs of employees affected with HIV/AIDS. In this regard, Lim & Loo, (2000) commented that, the HIV/AIDS Workplace programs are designed from a generic perspective which leads to a contradiction between what employees need and what they are being provided with as care, support and prevention programs in the work context. Zelnick and Donnel (2005) indicated that employers are generally knowledgeable about the transmission of HIV but still view the employment of PLWHIVs as having adverse organisational consequences therefore; employers need to be introduced to well thought and situation specific policies and guidelines on HIV/AIDS.

According to Pinder (2006) much of the HIV/AIDS work focuses on the individual, such as efforts to raise awareness, with the assumption that improved access to information will lead to reduced risk of HIV infection. However, Zelnick & Donnel (2004) noted that, individual focus must take into account the fact that individuals are heavily influenced by their environment which include social, political, and economic aspects within the household, community, and outside, which can increase risks, reduce options, and deepen vulnerability and such aspects are not taken into special consideration in the workplace.

PROBLEM STATEMENT

Considerable capacity building and funding has been invested in developing HIV-related workplace programmes. Kelly (2005) indicated that, small scale research at company level will help to reveal the specific problems and needs of specific individuals producing results on what really the employees at a given company at a given time need, then help management design and implement the programs according to needs. Therefore there is need to investigate the extent to which these programs are being implemented and are benefiting employees at company level, since this area has not been adequately studied in institutions such as Fort Hare. Given the inertia of the problem to improve the life of affected and infected employees, a comparative study of the available programs versus expected needs is necessary as it broadens the understanding of the problem and can assist HRM department to plan strategically against the pandemic in the workplace. Without a systematic and empirically-driven methodology for identifying such inconsistency between the needs of employees and the programs available in the workplace, HIV/AIDS workplace intervention programs may not contribute as much to program scale-up as governments and donors intend if these programs do not meet the needs of the employees. Therefore this study seeks to investigate Organizational HIV/AIDS workplace intervention programmes versus employee needs. Case of a tertiary Institution.

Objectives of the Study

- (1) To establish the needs of HIV/AIDs affected and infected employees in the workplace.
- (2) To assess the HIV/AIDs workplace intervention programs provided by the institution.
- (3) To highlight the key areas of inadequacy in HIV/AIDS workplace interventions and present strategies and recommendations for improved interventions which meet the needs of employees?

LITERATURE

Elements of HIV/AIDS Workplace Programme To Meet The Needs of Employees

The report provided by UNAIDS (2003) revealed that the HIV/AIDS workplace programs in institutions of higher education though generic in nature try to address all the needs of the employees, however the fact that the general elements of the programs are too many leads to difficulties in trying to implement all the programs. Workplace Program Report (2005) indicated the following elements, awareness and education, counseling,

healthcare, provision of condoms, accommodations, compensation and process or mechanism for dealing with *HIV/AIDS related Grievance*. Hoffman (2005) indicated that disputes relating to HIV/AIDS as discrimination should be dealt with fairly. Haupt & Small (2003) also noted specific programmes for worker sensitization, provision of preventive materials to workers, STI care and HIV/AIDS clinical management, and community initiatives.

Employee Needs

In the Code of good practice the rights of employees in regards to HIV/AIDS in the workplace are clearly described. According to the research by Nattrass (2004) it is from these workers' rights that those employees' needs crop from. Employees expect the following: Protection against unfair dismissal, in the event of failure to perform employer should explore the possibility of adopted employment conditions prior to dismissal, protection against unfair discrimination, equal opportunities, workplace testing only with consent from the Labor Court, confidentiality if HIV status is known, physically, emotionally and socially safe working environment, given adequate care and treatment support by the organization, and right to education on aspects of HIV/AIDS in the workplace.

Needs of Employees at Fort Hare

In an engaging and participatory manner, the Fort Hare HIV/AIDS coordinator Milan (2009) allowed staff to share more information on HIV/AIDS issues, the employees indicated that there were more concerned about discrimination and confidentiality which they raised as their main cause for refusing to get tested and to reveal their status and consequently finding out that they are infected way too late. Other issues which employees indicated were not helpful to them include pre- test and post- test counseling, life span of the HIV virus outside a human body, and the usefulness of a prophylaxis. These aspects all seem to be similar to those written down in the policy, does it mean therefore that, the policy is just on paper not in practice since employees are still complaining.

RESEARCH DESIGN

This is a descriptive research since it examines a situation as it is, does not involve changing or modifying the situation nor is it intended to detect cause and effect relationships (Leedy & Ormrod 2000). It seeks to understand, make comparisons and determine the degree to which variables are associated and predict the extent to which individuals' needs are being fulfilled. Both qualitative and quantitative research designs are going to be employed since the study seeks to both identify characteristics of an observed phenomenon and explore possible gaps between two phenomena. Since the research seeks to get deep understanding of why employees affected and infected with HIV/AIDS continue to complain, hence an in-depth interview with the director of the intervention programs as well as the employees will be of great help.

Population Sample and Sampling Procedure

The population of the study will be made up of all UFH employees which is approximately N=654. The sampling frame consists of a list with directly infected and affected employees strictly limited to one who have, (lost a parent, child, spouse or having such in bed as a result of HIV/AIDS). From this, a sample of n = 200 employees will be picked to represent the population using the cluster sampling procedure.

Data Collection and Analysis

The research has two major variables that are intended to be studied which are employee needs and intervention programs therefore the study will compare the intervention programs with the employee needs. The methods that will be used to collect information include a self administered semi-structured questionnaire and in depth interview with the HIV/AIDS program director at the University. This will seek to understand the needs of

employees, and the current HIV/AIDs intervention programs being administered by the University. Data will be analysed through both descriptive and statistical methods.

RATIONALE OF THE STUDY

Since HIV/AIDS is one of the major problems affecting the organisations today, this study will help in shading more light on what different infected and affected employees really need. Such knowledge will help to draft policies and intervention programmes that are specifically suitable and benefit the targeted group. In addition to that, when the needs of infected and affected employees are known, and are addressed, that will create a good working environment for the infected and affected individuals thereby improving morale and performance of the employees. Therefore this study seeks to improve the way HIV/AIDS programs are administered for the benefit of the employees.

ETHICAL CONSIDERATIONS

Ethical considerations of research will be strictly observed including informed consent and also since the research is dealing with a sensitive issue of HIV/AIDs, the respect and protection against danger of subjects will be strictly observed. No subjects will be forced to disclose their HIV status unless one volunteers to do so, in addition to that, no subject will be forced to participate in the study if he/she is not comfortable with the matter under study.

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AN EXAMINATION OF THE RELATIONSHIP BETWEEN MOTIVATION AND INVOLVEMENT AMONGST SOUTH AFRICAN CAMPERS

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ABSTRACT

Several factors can motivate a camper to participate in certain camping activities. These factors must attract a desirable motivational state within the psycho-dimension of a camper. Factors also exist that influence the degree of involvement to participate in camping activities. This study investigates the relationship between motivation and involvement in campers using a convenience sample of campers drawn from selected camping and caravan parks within the Limpopo and Gauteng provinces of South Africa. The results indicated a weak, positive relationship between motivation and involvement; however, empirical validation was found on the relationship between these two constructs on sub-dimensional levels – gender and mode of camping.

INTRODUCTION

Camping has become one of the fastest-growing leisure activities in South Africa (Lehohla, 2007). Existing environmental knowledge of specific caravan parks has influenced campers' needs to become motivated to engage in camping such as bonding with family and friends and learning about nature. This motivational behaviour compels the campers towards action and thus influences the level of involvement of campers to engage in certain camping activities. Although camping is a well-known leisure activity in South Africa, limited research has been done about camping and therefore, little is known about the psychological and behavioural aspects of the campers as well as the differences on these aspects between gender and mode of camping.

Previous studies have explored the psychological and behavioural aspects of campers in terms of motivation and involvement in countries such as the USA and Canada, however, no research has been done on this topic, in a South African context. This study was replicated from Kyle, Absher, Hammit and Cavin (2006) from an American perspective into a South African context. Some countries differ in motivational and behavioural patterns and thus needs to be modified into context with the focusing countries' culture and behaviours. Previous research has addressed several aspect of consumer motivation by simplified models (Crompton, 1979; Dann, 1977; Maslow, 1943; Mannel & Iso-Ahola, 1987; Mill & Morrison, 1985), however, these models and theories only focussed on psychological processes and neglected to acknowledge behavioural outcomes. Saayman (2000:33) has identified two forces, within the tourism context, that embrace both psychological as well as behavioural factors, which attract or repel a camper to a specific caravan park. These behavioural forces that Saayman (2000:34) identified can also be seen in the expectancy-value model of Lawler (1973), which is an overall framework of the basic motivational and involvement elements of campers. These theories can in effect be seen as 'why' individuals engage in specific leisure behaviour.

The problem with academic disciplines of consumer motivation is that many models have been generated and refined, but little research has been done to test these motivational influences on the state of involvement to engage in a certain activity such as camping. The study of Kyle *et al.* (2006) investigated the relationship between motivation and involvement with campers in an American context. Cultural differences around the world result in different behavioural patterns and thus, the relationship that Kyle *et al.* (2006) found in motivation and involvement in American campers will differ from the motivation-involvement relationship within South African campers. The relationship of these two constructs can also differ between genders; males

and females can be motivated to engage in camping activities by different influences. So also, can the mode of camping differ on this relationship; campers that camp in tents or caravans will also be motivated to engage in camping activities by different influences.

The main purpose of this study is to determine whether a relationship exists between motivation and involvement among campers in South Africa, by determining whether this relationship also exists at a dimensional level. Central research objectives were: To analyse the nature of the relationship between motivation and involvement in camping; To identify gender differences in the motivational state while camping; To identify gender differences in involvement to engage in camping; To identify the differences in motivational state between different modes of camping; and To identify the differences in involvement between different modes of camping. Research was conducted at selected caravan parks within the Limpopo and Gauteng provinces in South Africa. A convenience sample was exposed to a self-completion questionnaire.

LITERATURE REVIEW

The global tourism growth rate of 8% exceeds the current global economic growth rate of 3% (Statistics South Africa, 2005). Therefore, a multitude of opportunities exist within the tourism industry, especially in the camping sector as camping is the fastest growing leisure activity in South Africa (Lehohla, 2007). Therefore, attention needs to be given to this important sector. Although, much research has been done on other broader aspects of tourism, not much academic attention has been paid to camping thus, research gaps exists (Ingram, 1996). The small amount and quality of research that has been done is alarming to practitioners, who are concerned with advancing the academic frontiers of camping.

South Africa has 700 camping sites in various provinces within South Africa and is most often located near or within nature reserves and other tourist attraction sites and famous landmarks therefore campers have a wide variety of activities to choose from (EcoTravel Africa, 2008). Camping has various definitions according to the mode of accommodation. The mode of camping that this study will focus on consists of four factors, namely, camping in tents, camping in caravans, motor homes and bush/camping trailers. Camping in tents refers to tourists, who use a material tent as accommodation, which needs to be built by supportive poles and pegs (Hughes, 2005). Bush/camping trailers are trailers that have a build-on tent on top and various facilities such as drawers for your clothes, a kitchen area and storage that focus on space saving and convenience (Afrispor, 2008). For the purposes of this study, bush/camping trailers will be seen as tents.

There has been a phenomenal growth in the use of caravans on the roads of South Africa over the last ten years from 1997 to 2007 (Lehohla, 2007). A caravan is a mobile living quarter that is used for accommodation; it can either be stationary and located within a caravan park or mobile and towed behind a vehicle (Prideaux and McClymont, 2006:45). Motor homes are also classified as caravans in this study although they have different characteristics. Motor homes are 4x4 vehicles that have living quarters, bathroom and kitchen, built into the car. These motor homes are the most expensive mode of camping (EcoTravel Africa, 2008). Campers are people who travel and stay at various camping destinations, using a mode of camping that fits their needs and preferences. Campers need a place that is safe, secure, clean and with interesting activities and entertainment to participate in. Campers also need sufficient motivation to attract them to a certain caravan park.

Motivation in camping

Motivational factors include personal characteristics that a camper brings with them to the destination such as previous experiences, personal goals and beliefs and setting characteristics such as opportunities of adventure and other activities that arouse interest (Packer & Ballantyne, 2002:189). Campers' behaviour is an interesting topic; however, a difficult subject to research particularly in the tourism field, where the decisions to purchase a holiday are of emotional significance thus, motivation plays an underlining role (Swarbrooke & Horner, 2007:3). Motivation consists of psychological processes that give purpose and direction to one's behaviour, obligating one to act (Kreitner, 1989:429; Pizam & Mansfeld, 1999:58; Witt & Wright, 1992:24).

There are various motivational models available in previous studies, each covering a unique aspect of motivation. Maslow's motivational hierarchy of needs is well known in academic literature; however, this

model only captures the psychological aspects of needs (Saayman, 2002:150). Mill and Morrison (1985:19) see travel as a human need and show how Maslow's hierarchy connects with travel motivation. Similarly, Dann's (1977:186) seven travel motivators can also be connected to Maslow's hierarchy of needs. One of these travel motivators, as identified by Dann (1977:186), indicate that motivation consists of push and pull factors. Push forces consist of factors that drive a tourist to visit a specific place (caravan park) or practice a particular activity while pull forces make a facility or activity attractive to the potential camper. Several other theories incorporated the push and pull theory into their research (Crompton, 1979; Mannel & Iso-Ahola, 1987). These push factors can essentially be seen as motivators, whereas the pull factors can be seen as involvement. Saayman (2000:33) agreed with the push and pull theory of Dann's work, he applied these two forces within tourism. Push and pull forces that were recognized in Saayman's (2000:33) work closely resembled the Confirmatory Factor Analysis-Motivational scales and Confirmatory Factor Analysis-Enduring Involvement scale of Kyle *et al.* (2006:474). These scales that Kyle *et al.* (2006) implemented, was used to replicate this study in a South African context. In the study of Kyle *et al.* (2006), the push forces are escape, nature, bonding, learning and social. Likewise, the pull forces in Kyle *et al.* (2000:475) are attraction, centrality, social bonding, identity affirmation and identity expression.

Regardless of all the concepts involved in the motivation process, the expectancy value model that was developed by Lawler as cited in Kyle *et al.* (2006:468) was finally able to summarise all the concepts thus providing a framework for the analyses of tourist motivation. This theory includes the needs that are important to understand motivation as mentioned in Maslow's hierarchy of needs (Saayman, 2002:150) as well as the push and pull forces mentioned above. The expectancy value model of motivation was developed by Lawler (1973) to give a theoretical orientation of understanding human motivation. This model entails that the pursuit of psycho-social and physiological outcomes drive all human behaviour and actions. Manfredro, Driver and Tarrant (1996) referred to Lawler's work and designed a series of items to capture the psychological outcomes that emerge from engaging in outdoor activities. These items that are represented in Kyle *et al.* (2006:468), the Recreation Experience Preference (REP) scale, identify why people visit the natural environment for leisure. Kyle *et al.* (2006:469) based their Confirmatory Factor Analysis-Motivation REP scale on Manfredro *et al.*'s (1996) REP scale and refined the items to improve statistical properties. Lawler's models of motivation have been used ever since to address the question of 'why' people get involved in leisure activities.

Involvement in camping

Individuals' needs, goals, values and the attitudes of an activity (motivational state) influence the ability to pursue in an enduring activity involvement. When a person's knowledge is activated by means of decoding the memory, a motivational state exists and is manifested in heightened cognitive activity and open behaviour (Celsi & Olson, 1988:215). Many researchers have tried to understand what effect enduring involvement has on other leisure-related behavioural and psychological processes. These studies have showed that involved campers tend to be more likely to engage and participate in other activities than other less involved campers (Bloch, Black & Lichtenstein, 1989; Kyle, Kerstetter & Gaudagnolo, 2002; Schuett, 1993). To measure involvement, most studies have focussed on the primary attitude object at the product level, which focussed on a specific leisure activity such as camping. In this replicated study of Kyle *et al.* (2006), the measurement of involvement differs from related concepts in the psychological field, which are placed at brand level. Therefore, the basic theory of involvement in a camping context will be based on the findings and sub-dimensions of the Modified Involvement Scale (MIS) that was developed by Kyle *et al.* (2006).

Kyle, Absher, Hammit, Cavin and Cavin (2004) have modified and improved the Involvement Scale from McIntyre and Pigram (1992). According to Kyle *et al.* (2004) the scale was not sufficient to embrace the total construct of involvement. Kyle *et al.* (2006:470) suggested that a camper's social bonding to specific activities often shaped the meaning that they derived from specific leisure experiences in addition to being "locus of their involvement". According to Dimanche and Samdahl, (in Kyle *et al.*, 2006:470), the "identity affirmation" and "identity expression" dimension of the Modified Involvement Scale (MIS) scale followed that campers can affirm their identities to themselves and others by their participation in specific leisure activities. Kyle *et al.* (2006:470) then combined the five dimensions of attraction, social bonding, centrality, identity affirmation and identity expressiveness to form the Modified Involvement Scale (MIS) that is being replicated in this study.

Correlating aspects of motivation and involvement

Depending on the emotional or instinctive power of a person's need, the level of involvement with a corresponding need or motive can be defined by the intensity and persistence with which it recurs. Previous research has not indicated the relationship between motivation and involvement. Kyle *et al.* (2006) have studied these two constructs independently, and then reflected the connection between these two constructs. First, from Lawler's (1973) expectancy-value model as cited in Kyle *et al.* (2006:471), it can be said, that motivation to initiate and maintain involvement with specific leisure activities, can be seen in the light of the campers' pursuit of engaging in specific outcomes. Over time, campers learned the benefits that are posed by specific activities and encoded those benefits that best satisfy their needs in their long-term memories. The power of choice regarding one's leisure activity represents the highest expression of personal freedom.

Sherif and Hovland (1961) observed that the degree, to which individuals were motivated to process information, was determined by the extent to which the attitude, object or activity was in some way, self-related or considered personally relevant. Today, definitions of involvement in psychology and consumer behaviour literature reflect on Sherif and Hovland's (1961) earlier work; simply put, an individual will not be interested in a message that does not benefit him. Involvement can be seen in terms of "perceived personal relevance" or the motivational state derived from the association between the aspect of self-concept and an activated attitude (Celsi & Olsen, 1988:211). The perceived linkage, between self-knowledge and the product or activities' attributes, can define personal relevance. By activating personal relevant knowledge, the motivational state is energized to drive behaviour or engage in an activity.

Although empirical evidence proves that a relationship between motivation and involvement exist, the academic research on this relationship in a camping context is scarce. Therefore, three studies have been identified by Kyle *et al.* (2006) to provide some fundamental arguing ground to support the evidence of the relationship. Funk, Ridinger & Moorman (2004:60) investigated the relationship between motivation and involvement among season ticket holders and attendees at a Women's National Basketball Association game. The use of their measures is beyond the contexts of this study but their basic scale was based on the same dimensions as in the Modified Involvement Scale (MIS). Their findings showed that the motives of the spectators were antecedents of involvement. Iwasaki and Havitz (2004:68-71) observed a strong relationship between motivation and involvement from a Canadian recreation centre. Losier, Bourque and Vallerand (1993:88) similarly observed the same relationship using a 5-point Likert scale where respondents were significantly influenced by motivation among a sample of older Canadians.

From these studies, the existence of a relationship between motivation and involvement is known, yet the nature of the relationship is unknown at the dimensional level. In the work of Kyle *et al.* (2006), the study did not allow them to hypothesize that the dimensions of motivation would have a positive impact on the dimensions of involvement because those relationships are weakly grounded in literature. In this study however, some correlations will be tested at the dimensional level. Although positive associations can be made between the constructs, these associations are somewhat inconsistent and the observed positive associations have a statistical significant influence because the dimensions have different sizes. Never the less, associations will be drawn from the constructs. Other work examined by Kyle *et al.* (2004) that used multidimensional conceptualisations has illustrated similar variations. Although Kyle *et al.* (2006) have established that there is a relationship between motivation and involvement, the strength of this relationship might differ due to factors such as gender differences as well as the differences between the various modes of camping. Therefore, this study took into account the differences between these factors to establish whether the relationship between motivation and involvement is statistically significant or not.

METHODOLOGY

Sampling and data collection

The target population for this study consisted of campers camping in tents as well as in caravans, in selected caravan parks in the Limpopo and Gauteng Provinces namely Forever Resorts, Mbizi, Koro-Koro, El

Rancho Grande, Nkwe and Tamboti Vreugde. These caravan parks were chosen on a convenient basis where the researchers got permission to interview campers within the specific camps. The unit of analysis for this study consisted of campers (males and females) that were camping in tents or caravans, aged 18 years and older.

This study made use of convenient non-probability sampling; therefore no sampling frame was used. The questionnaire was based on a quantitative, self-completion survey method where campers filled out their own questionnaire with a field worker at hand. The initial questionnaire was pre-tested with a convenience sample of 10 campers using the collaborative participant pre-testing method described by Cooper and Schindler (2006:396). Data for this study was collected with a self-completion survey questionnaire that was replicated from the questionnaire of Kyle *et al* (2006). Questionnaires were handed out to the target sample at the various camping sites which allowed the campers to participate in the survey at their own time (taking in mind that these campers are in holiday mode).

Measurement

Kyle *et al.* (2006:474) used a **Recreation Experience Preference scale (REP)** with 5 sub-dimensions to assess respondent's motivation to engage in camping. This scale was replicated for the purposes of this study. These 5 sub-dimensions (escape, nature, social, bonding and learning) each had 3 items to measure the sub-dimension, resulting in a total of 15 items to measure motivation. The 15 items of the scale (items 2.1 to 2.15) are on a five-point Likert scale. All the scale points of these 15 items were labeled ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). The composite scale scores were averaged to measure the overall responses.

A reliability analysis of the 15-item motivation scale (REP scale) showed an average Cronbach's Alpha coefficient of 0.87 on the overall motivation construct (highly acceptable internal consistency). Cronbach's Alpha coefficients were also calculated on the five sub-dimensions and showed highly acceptable internal consistency reliability. The "escape" dimension showed lower internal consistency reliability than the other four sub-dimensions; however, if the "escape" dimension is removed from the scale, it would decrease the internal consistency reliability of the total motivation (REP) scale. Future studies can add more items to the "escape" dimension to increase the internal consistency reliability. The Cronbach's Alpha values for the sub-dimensions differed from the Cronbach's Alpha values reported by Kyle *et al.* (2006); "bonding" and "learning" from this study showed a higher internal consistency reliability; whereas, "escape", "nature" and "social" from this study showed a lower internal consistency reliability.

Kyle *et al.* (2006:475) used a **Modified Involvement Scale (MIS)** with five sub-dimensions to assess respondent's involvement while camping. This scale was replicated for the purposes of this study. These five sub-dimensions (attraction, centrality, social bonding, identity affirmation and identity expression) each had 3 items to measure the sub-dimension, resulting in a total of 15 items to measure involvement. The 15 items of the scale are five-point Likert scale statements. All the scale points of these 15 items were labelled ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). The composite scale scores were averaged to measure the overall responses.

A reliability analysis of the 15 item Involvement scale (MIS scale) showed an average Cronbach's Alpha coefficient of 0.92, which indicates highly acceptable internal consistency reliability. A break-down of the Cronbach's Alpha coefficient was also calculated on the five sub-dimensions and showed highly acceptable internal consistency reliability. The "social bonding" and "identity affirmation" dimension showed lower consistency reliability than the other three sub-dimensions but if the "bonding" and "identity affirmation" dimensions are removed from the scale, it would decrease the internal consistency reliability of the total involvement scale. Future studies can add more items to the "bonding" and "identity affirmation" dimensions to increase the internal consistency reliability. The Cronbach's Alpha values for the sub-dimensions differed from the Cronbach's Alpha values reported by Kyle *et al.* (2006); "attraction", "centrality" and "identity expression" from this study showed a higher internal consistency reliability than those reported by Kyle *et al.* (2006:475); whereas, "social bonding" and "identity affirmation" from this study showed a lower internal consistency reliability than the study of Kyle *et al.* (2006:475).

The **mode of camping** which respondents used, were measured to assess whether a difference exist in terms of motivation and involvement between the various modes of camping. The modes of camping included a multiple-choice, single response scale with 4 variables (tents, caravans, bush/camping trailers and motor homes). The scores were averaged to measure the overall responses.

Descriptive Statistics

Mode of camping and gender was tested on a nominal level of measurement. The majority of respondents were caravanners (55.05%, $n = 120$). Tenters were 44.95% ($n = 98$) of the sample. The number of male and female campers was almost equal with females taking a slight majority (50.7%, $n = 111$) to males (49.3%, $n = 107$). The majority of respondents fell in the 18-30 years age group (29.4%). Motivation was tested at an interval level of measurement. The highest ranked motivation sub-dimension is associated with “bonding” ($M = 4.53$, $SD = 0.47$), which lies between “agree” and “strongly agree” and the lowest ranked motivation sub-dimension is associated with “learning” ($M = 3.72$, $SD = 0.77$), which lies between “neither agree nor disagree” and “agree”.

Involvement was tested at an interval level of measurement. The highest ranked involvement sub-dimension is associated with “attraction” ($M = 3.84$, $SD = 0.81$), which lies between “neither agree nor disagree” and “agree” and the lowest ranked involvement sub-dimension is associated with “centrality” ($M = 3.20$, $SD = 0.95$), which also lies between “neither agree nor disagree” and “agree”. A two-tailed hypothesis was tested at a 5% level of significance (i.e., $\alpha = 0.05$) and no correlation between motivation and involvement was found.

Since respondents’ scores on the involvement and motivation scale were measured at an interval level of measurement, the appropriate parametric significance test is Pearson’s product moment correlation. This test assumes that there is a linear relationship between the two variables being tested and that both variables, motivation and involvement, have a normal distribution (Diamantopoulos & Schlegelmilch, 2000:203-205). If the last assumption cannot be satisfied, the Spearman’s rank order correlation can be used as a non-parametric alternative (Pallant, 2001:116). Scatterplots indicated that the assumption of linearity was not violated. The results of the Kolmogorov-Smirnov tests as well as inspections of histograms and normal probability plots indicated that only a slight departure from normality exists and therefore the Pearson product moment correlation was used.

The results indicate that there is a positive correlation between the motivation and involvement constructs, $r(216) = 0.405$, $p < 0.0005$ (two-tailed). The coefficient of determination (r^2), indicates that the two variables, motivation and involvement, share 16.4% common variance. The implication of these results supports the finding that respondents’ scores on the motivation scale are positively correlated with those on the involvement scale. This correlation, while significant, is however, weak according to the rule of thumb (Salkind, 2006:338). The results also indicate that “social” and “learning” have the strongest correlation (although very weak) with the overall involvement ($r = 0.391$ and $r = 0.379$ respectively), thus having the largest implication for managerial use. However, these correlations are weak (Salkind, 2006:338) and have to be supported by the investigation of differences on these constructs on gender and mode of camping sub-samples. Thus, management has to tailor camping activities in such a way that it can accommodate campers who are eager to learn as well as provide social activities in order to get campers more involved. The following was also found: no significant difference between males and females on the motivation to engage in camping; significant difference between males and females on involvement to participate in camping activities; no significant difference between tenters and caravaners on the motivation to engage in camping; and a significant difference between tenters and caravaners on involvement to participate in camping activities.

SUMMARY OF FINDINGS

The results indicated that a positive relationship does exist between total motivation and total involvement within campers however this relationship is weak (Salkind, 2006:339). This is in line with the findings of the previous study of Kyle *et al.* (2006) which also concluded a positive relationship. From these findings, motivation can be seen as a precedent of involvement (Funk, et al., 2004:60), indicating that motivation plays an important factor to the extent that campers will participate in a specific type of camping activity (Swarbrooke &

Horner, 2007:3). Moreover, this study empirically validated the relationship between these two constructs on a sub-dimensional level and found that “social” and “learning” was the strongest motivators to attract campers to a caravan park. The motivational state of campers energises the drive to behaviour or the need to engage in an activity. When these motivational pull forces, as explained by Dann (1977:186), are utilized correctly by management, the caravan park will attract more campers. The push forces that Dann (1977:186) are referring to are the physical activities that campers can participate in (involvement). From these findings, management needs to adjust their advertising as well as their camping activities that they offer campers in order to maximize the overall satisfaction levels of the campers.

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THE RELATIONSHIP BETWEEN SPORTSCAPE AND SPECTATOR SATISFACTION AT A SOUTH AFRICAN SPORT STADIUM

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ABSTRACT

The quality of a sport event and the outcome of the event are uncontrollable elements that play a role in customer satisfaction. Aspects such as accessibility, facility aesthetics, electronic display quality, seating comfort and cleanliness are more controllable. This study showed that there is a relationship between how customers perceive the physical surroundings of the sport stadium and their overall satisfaction with the experience at the event. Data was gathered from spectators (n=203) at SuperSport Park during a benefit cricket match. The results indicated a strong correlation between the total Sportscape as well as its sub dimensions (accessibility, facility aesthetics, electronic display quality, seating comfort and cleanliness), and spectator satisfaction.

INTRODUCTION

In sport fan attendance is a major source of income (Kelly & Turley, 2001:161). No longer can a professional sporting organisation survive financially by just opening its gates on a weekend hoping that the core service product alone (the game) will satisfy the paying consumer (Robertson & Pope, 1999). If controllable service attributes, which are directly related to an increase in fan satisfaction, can be identified, then a sport services marketer has a great chance to increase fan attendance by focussing resources on these specific variables.

This study examines the service attributes sport fans might use when evaluating the quality of their service encounter. According to Kelly and Turley (2001:165), the most important service attributes that sport fans consider when determining the service quality are “the quality of the game” and “the outcome of the game”. These two core-service variables are however not under the control of the sport marketer. The sport facility presents the most controllable element for providing service quality in spectator sport (Westerbeek & Shilbury, 2003). The 2010 Soccer World Cup will be held in South Africa and there is also the possibility of South Africa hosting another Rugby World Cup in the future. Therefore the understanding of variables other than the core service product that sports fans see as important might be useful, as this might include variables that the sport marketer can control. Customer satisfaction is at the centre of the marketing concept (Greenwell, Fink & Pastore (2002) Capella (2002:30) and Petrick (2002) suggest that the marketing concept holds true for sporting facilities; needs and desires of spectators must be determined in order to develop the most appropriate delivery methods.

This study will focus on sport fan’s perceptions of the Sportscape and peripheral services of a live sporting event as indicators of sport fan’s satisfaction. The term Sportscape is an application by Wakefield and Blodgett (1996) of the Servicescape framework introduced by Bitner (1992). Therefore this study will make use of a field study to determine spectator’s perceived value of, what Wakefield and Blodgett (1996) refer to as the Sportscape, in the South African context.

LITERATURE REVIEW

Only in the last decade has the unique contribution that sport can make to services marketing been recognised, with leading marketing journals such as *Journal of Services Marketing*, 13(6), (1999), devoting special issues to research in sport marketing (Westerbeek & Shilbury, 2003). Services can be viewed as deeds, acts or performances that are provided to customers (Jordaan & Prinsloo, 2001:7). A service can only be experienced, used and consumed; the purchase of a service cannot become the possession of the customer. When, for example, a spectator watches a live sporting event at the stadium, the only thing he takes home is the memory of what he has seen and experienced.

Normann (in Williams & Buswell, 2003:88) divide services into two distinct components: core and peripheral or secondary services. The term “core service” in the sporting context refers to the elements of the spectator sport service experience that directly influence the sporting contest. He further suggests that customers use the peripheral services to differentiate between two similar service providers. The peripheral services of a stadium according to the Normann definition (in Williams & Buswell, 2003:88) would include ease of parking and close proximity of food stands. In this definition it is difficult to distinguish between the core and peripheral services. Westerbeek and Shilbury (2003) more clearly distinguish between core services, peripheral services and the Sportscape.

Several studies indicate the importance of “augmenting” the core service as a means of sustaining a competitive advantage in the competitive leisure sector. (Hightower, Brady & Baker, 2000:697; Petrick, 2002; Normann, in Williams & Buswell, 2003:88). The augmented services are the extra services offered, normally requiring that the organisation spends more money on resources (Williams & Buswell, 2003:88). An augmented service for a live rugby game might be the introduction of cheerleaders, mascots or a musician before the game (the core service).

Sportscape

The most comprehensive application of the Servicescape in a sporting context is embodied by studies of Wakefield and Blodgett (1994), Wakefield and Sloan (1995), and Wakefield and Blodgett (1996). The term Sportscape is an application by Wakefield and Blodgett (1996) of the Servicescape framework introduced by Bitner (1992). Bitner (1992:57) explains that the environment in which we consume a service affects our perception about that service. When a moderate amount of time is spent in a Servicescape, as is the case in a stadium during a sporting event, then the importance of the Servicescape is even more accentuated (Wakefield and Blodgett, 1996:45). In their study Wakefield and Blodgett (1996) focused on elements of the Sportscape that can be controlled by management - aesthetics, layout, seating, electronic equipment and cleanliness. Therefore they do not measure the impact that other consumers/spectators can have on a particular spectator's perception of quality.

Kelly and Turley (2001:161) investigated the importance of service attributes sports fans use when evaluating the quality of the service experience. Findings from their study point indicate that there are nine quality factors in the sport event context; employees, price, facility access, concessions, fan comfort, game experience, show time, convenience and smoking. Although these factors seem useful in explaining the variance in service quality importance, the services marketer has no control over some of these factors. Examples are “gaming experience” and “quality of the game”. Another contribution of this study is the suggestion that different groups of consumers may place different weights on particular service quality attributes.

From a sport perspective the Servicescape consists of those things that remain the same from game to game and includes architectural, landscape, and site designs (Robertson & Pope, 1999). According to Lee, Ryder and Shin (2003) there are certain factors that influence the way spectators perceive an experience at a stadium. Spectators can be positively or negatively influenced by factors other than the core reason for them being at a sporting event, namely the sport being observed. Specific stadium factors were studied and divided into five groups or divisions (Wakefield and Sloan, 1995:160). These groups are: The availability of parking spaces and seating; Cleanliness of the stadium itself and especially restrooms; Quality of stadium facilities; Food services or consumables; and Behaviour of other spectators

The availability of parking spaces and seating (at events where seats are not booked before hand) can in some cases be harmful to the reputation of an event. When parking is scarce and excessive time is taken to search for parking, it adds to the frustration of the spectator (Bitner, 1992; Snodgrass, Russell, & Ward, in Lee et al., 1995). People who are dissatisfied with parking availability or parking conditions are more likely to leave the game or event early than people who were satisfied with conditions regarding parking. Restrooms and concession areas that are dirty or overthrown with trash could easily influence the perception of a spectator in a negative way (Wakefield & Sloan, 1995:157).

Melnick (in Lee et al., 1995) states that the quality of the facilities at a sporting event plays an important role in spectator satisfaction. He further states that space as a facility factor plays a big role in spectator satisfaction. For example the width of hallways and distance between seats. People are in general quite sensitive regarding their personal space, and therefore people want more space in concession areas and bathrooms. Importantly, according to Wakefield and Sloan (1995:155), people are in the sport stadium from one hour up to five hours before and during a game or event. A variety and good tasting food can enhance the sports encounter experience.

The behaviour of other spectators has a large influence on the total satisfaction of a spectator. People who behave badly can affect the spectators around them, especially when alcohol is involved. Bernstein (1991) notes that extreme patriotism towards a team can lead to bad behaviour from spectators. It is therefore possible that spectators could opt to leave a game early because of the offensive behaviour of others. He adds that it is the responsibility of the stadium's management team and personnel to ensure spectator safety by keeping supporters of opposing teams separate and by regulating alcohol usage in the stadium.

Perceived Quality And Satisfaction

One of the original service quality theories is that customers are satisfied when their judgment of the service they have received equals or exceeds what they expected (Williams & Buswell, 2003:60). This is known as the Oliver's expectancy-disconfirmation or the gap analysis theory and has three potential satisfaction levels (Williams & Buswell, 2003:60):

- Negative disconfirmation occurs if the service is worse than expected.
- Positive disconfirmation occurs when the service is better than expected.
- Simple confirmation occurs when the service is as was expected.

The factors that influence the formulation of customer expectations are word-of-mouth, personal needs, external communications and past experience (Zeithaml, in Williams & Buswell, 2003:63). Naumann and Jackson (1999:71), extend on the Oliver's expectation-disconfirmation, by explaining that the service expectations, from a customer's perspective, are the ratio of benefits to outlays. However, customers do not objectively determine benefits and outlays; it is their expectations and perceptions of these factors that are important. Perceived value is a comparison of what a consumer "receives" with what the consumer "gives" for the attainment of a service (Petrick, 2002). Jordaan and Prinsloo (2001:71), agree that customer expectations play a central role in shaping customer evaluations of service quality, and the key to "modern marketing" is to determine these expectations and to attempt to satisfy them.

Parasuraman (in Williams & Buswell, 2003:62) mentions that satisfaction with a service is not just a yes/no answer. Satisfaction can be to a lesser or greater degree as satisfaction can range from unacceptable service through satisfactory to desirable and ultimately delight. Between satisfactory or adequate and desirable service is the customer's zone of tolerance. It is suggested that delighting rather than just satisfying the customers is the way forward. The implications for sport marketers of knowing the zone of tolerance of their customers is that they can reduce the level of service and therefore reduce cost and still satisfy the customers. When explaining service quality, Grönroos (in Kelly & Turley, 2001:162) suggests that service quality can be divided into two components, namely technical quality and functional quality. Technical quality is associated with the core service. In a sport context this will be the game or contest that is observed. Functional quality involves the evaluation of the service delivery. This in turn is compromised of the stadium, the public announcer and other peripheral service aspects. Once again the difference of control is clear in this distinction. Sport marketers can influence functional quality aspects, but not technical quality aspects.

Service quality and satisfaction is not the same (Crompton & MacKay, in Williams & Buswell, 2003:59). They provide the following distinction: "Satisfaction is a psychological outcome emerging from an experience, whereas service quality is concerned with the attributes of service delivery." The bulk of the research literature tends to support satisfaction as an outcome of service quality (Murray and Howat, 2002:29). This will also be visible in the context of the Sportscape at SuperSport Park and leads to the study's first hypothesis:

H₁: The perceived quality of the Sportscape at SuperSport Park is positively related to overall spectator satisfaction.

Findings from Kelly and Turley (2001:161), suggest that different groups of consumers may place different weights on particular service quality attributes. It was further found that gender plays a part in particular service quality attributes. Therefore the second hypothesis states:

H₂: Males and females will significantly differ in their perceived quality of the Sportscape at SuperSport Park.

OBJECTIVE OF THE STUDY

The aim of this study is to determine whether a relationship exists between how customers perceive the value of the physical surroundings of a sport stadium and their overall satisfaction. Kelly and Turley (2001:165) state that "the quality of the game" and the "outcome of the game" to be the most important service attributes that sport fans consider when determining service quality in a spectator sport context. These core-service variables are not under the control of the sport marketer. Therefore this study rather focused on the sport facility, as according to Westerbeek and Shilbuy (2003), this represents the most controllable element for providing service quality in spectator sport. A secondary objective is to determine whether gender is a predictor of satisfaction at a sport event.

METHODS

Sampling

The target population was cricket spectators over the age of 15 who attended a benefit match at SuperSport Park. The official attendance at the match was estimated at 7 200 spectators. This study excluded spectators that have not attended previous provincial or international cricket matches at SuperSport Park. Murray and Howat (2002:32) also excluded first-time customers from their study because these customers have no reference point to judge overall satisfaction. A non-probability sample was used; therefore it was difficult to calculate the sample needed to represent the intended population. In a similar study done by Greenwell, Fink and Pastore (2002), on minor league ice hockey spectators, a final sample consisted of 218 subjects. In another study by Murray and Howat (2002), 231 respondents participated. In this study 208 respondents eventually participated. Five questionnaires were rejected due to incomplete data.

The sample was somewhat dominated by male respondents (59%). Sixty-one per cent indicated that they had attended 1-5 previous provincial or international cricket matches at SuperSport Park. Of the 203 respondents, 120 (59.1%) were male and 83 (40.9%) were female. This spread was considered to be large enough for sub-group analysis. Fifty one percent of respondents fell in the age group range from 16-25, which is an indicator of the interest younger spectators had in the match, while 26% of respondents were aged between 26 and 35, and 17.7% were aged between 36 and 45. Only 2% of the respondents were aged older than 55. There were no respondents in the category "46-55". The majority of participants (60.6%) have only attended between 1 and 5 previous matches and the balance (39.4%) had attended more than 6 matches. Respondents that attended their first match were not included in this study.

Measures

Perceived value of the Sportscape was measured with a five dimension multi-item rating scale, developed by Wakefield, Blodgett and Sloan (1996). The sub-dimensions were: stadium accessibility, facility aesthetics, electronic display quality, seating comfort and cleanliness. Each sub-dimension contains four items. A seven-

point Likert scale ranging from strongly disagree (1), to strongly agree (7) was used. Studies on the application of the Sportscape model by (Wakefield et al., 1996) and Greenwell et al. (2002:137) have shown this scale to be internally consistent with Cronbach's alpha coefficients of over 0.80, ranging from 0.85 - 0.91 for the different sub-dimensions. Overall spectator satisfaction was measured with three items similar to Greenwell et al. (2002:137) (Cronbach's alpha coefficient of 0.90) on a seven-point Likert scale ranging from strongly disagree (1), to strongly agree (7):

- "I am satisfied with my decision to attend this game"
- "I think I did the right thing by deciding to attend this game"
- "I am happy that I attended this game".

Reliability Assessment

Cronbach's alpha coefficient was used to test the reliability of the multiple item rating scales for this study. Only internal consistency reliability is tested with Cronbach's alpha coefficient, but the test and re-test measure of proving reliability is impractical in the sporting contest. In Table 1 a summary of Cronbach's alpha coefficients for the Sportscape at the benefit match is displayed for all sub dimensions, while Table 2 shows the Cronbach's alpha coefficient for overall satisfaction at the match.

Table 1: Cronbach's alpha coefficient for total Sportscape and overall satisfaction

Sub Dimension	Alpha if deleted	Sub Dimensions	Alpha if deleted	Sub Dimension	Alpha if deleted
Accessibility	0.67	Aesthetics	0.85	Seating	0.92
Electronic display	0.87	Cleanliness	0.89		
Total Sportscape	0.92				
Total Satisfaction	0.89				

RESULTS

Descriptive Statistics

The mean (M) and standard deviation (SD) of the individual items as well as the totals of each sub-dimension are presented in Table 2.

Table 2: Components representing the perceived quality of the Sportscape

Sub-dimension	N	M	SD
Total Accessibility	203	5.09	0.78
Total Aesthetics	203	5.12	1.03
Total Seating	203	4.78	1.28
Total Electronic display	203	5.77	1.08
Total Cleanliness	203	4.71	1.37
Total Sportscape	203	5.09	0.82

The highest total sub-dimension mean is that of the electronic display sub-dimension (M = 5.77, SD = 1.08); whereas the lowest mean is associated with cleanliness (M = 4.71, SD = 1.37). An average score of 5.77 lies between "Slightly agree" and "Agree" on the seven-point Likert scale, which suggests that the respondents perceive the quality of the electronic display as high. One possible reason that electronic equipment and displays can play an important part in the Servicescape is that they make waiting time more enjoyable.

Satisfaction

Three items measured overall satisfaction. In Table 3 the means and standard deviations are presented.

Table 3: Descriptive statistics on overall satisfaction

Overall satisfaction items	N	M	SD
I am satisfied with my decision to attend this game	203	5.52	1.15
I think I did the right thing by deciding to attend this game	203	5.38	1.25
I am happy that I attended this game	203	5.65	1.14
Total	203	5.51	1.07

An overall mean of 5.51, lies between “Slightly agree” and “Agree” on the original seven-point Likert scale. It suggests that respondents were for the most part satisfied with their decision to attend the cricket match.

Hypothesis Tests

In this study two hypotheses were tested. The first hypothesis is a directional hypothesis investigating the relationship between two variables, while the second hypothesis concerns the differences between two groups. The steps that were involved in testing these hypotheses are now discussed:

H₁: The perceived quality of the Sportscape at SuperSport Park is positively related to overall spectator satisfaction.

This hypothesis was tested at a five percent level of significance, which translates to: $\alpha = 0.05$. The mean (M) and Standard Deviation (SD) of the total of each of the sub-scale dimensions of the Sportscape were presented in Table 3, as well as the mean of the total Sportscape. The parametric test normally associated with this type of measure is the Pearson’s product moment correlation. If the assumption of normality is violated, the Spearman’s rank order correlation an alternative non-parametrical test can be used, which happened in this case. The results of this test are indicated in Table 4.

The correlation matrix in Table 4 shows correlations of all the variables with each other and contains three values namely, the correlation coefficient, the p-value (“Sig.1-tailed”) and the sample size (N). The correlation between Total Sportscape and Total Satisfaction (the p-value in the row “Sig. 1(-tailed)”) is 0.000. With the p-values < 0.05 the null hypothesis, which stated that there is no correlation, can therefore be rejected. The value $r_s(203) = 0.774$ suggests a rather strong positive correlation between the perceived quality of the Sportscape and overall satisfaction. The coefficient of determination, r^2 , attained after the Spearman’s rank order correlation was 59.9%. All of the other sub-dimensions namely, Accessibility, Aesthetics, Seating, Electronic Display and Cleanliness also show statistically significant correlations with Total Satisfaction (p-values smaller than 0.05). The respective correlation coefficients also indicate strong correlations except Electronic Display, which at 0.417 shows only a moderate correlation.

H₂: Males and females will significantly differ in their perceived quality of the Sportscape at SuperSport Park

This hypothesis was tested at a five percent level of significance, which translates to $\alpha=0.05$. A small difference in means of the total perceived quality of the Sportscape between males and females were found ($5.11 - 5.07 = 0.04$). The p-value for Total Sportscape (0.86) was markedly larger than 0.05, which indicates that the null hypothesis cannot be rejected. It can therefore be concluded that males and females do not differ in their perceived quality of the Sportscape at SuperSport Park. None of the p-values of the sub-dimensions of the Sportscape, namely: Accessibility (0.11), Aesthetics (0.64) Seating (0.80), Electronic Display (0.77) and Cleanliness (0.74) are smaller than 0.05. The implication of this result is that males and females at SuperSport Park do not significantly differ in the way they perceive any of the sub-dimensions of the Sportscape scale.

Discussion

The results of the first hypothesis test showed that a strong correlation exists between the perceived value of the Sportscape and overall satisfaction. The coefficient of determination, r^2 , attained after a Spearman’s rank order correlation was 59.9%. Perceived value of the Sportscape therefore explains almost 60% of the variance in respondents’ score on overall satisfaction. This is consistent with Greenwell et al. (2002:138) in which a

combination of facility elements predicted customer satisfaction. Surprisingly the results of the second hypothesis suggested that there was no clear difference between male and female responses on perceptions of the Sportscape. The perceived value of the Sportscape and perceived value of the sub-dimensions of the Sportscape were tested with a Mann-Whitney U test with gender as the grouping variable. Although it was hypothesised that the male and female sub-groups will place different weights on service quality attributes, it could not be statistically confirmed. Future studies might rather investigate variables such as family size, age group, specific seating on the pavilion or location in the stadium, number of games attended during a season, rather than gender.

Table 4: Spearman's rank order correlation matrix

		Total Sportscape	Accessibility	Aesthetics	Seating	Electronic Display	Cleanliness
Total Sportscape	Correlation Coefficient						
	Sig. (1-tailed)						
	N						
Accessibility	Correlation Coefficient	0.571 **					
	Sig. (1-tailed)	0.000					
	N	203					
Aesthetics	Correlation Coefficient	0.750 **	0.405 **				
	Sig. (1-tailed)	0.000	0.000				
	N	203	203				
Seating	Correlation Coefficient	0.845 **	0.390 **	0.537 **			
	Sig. (1-tailed)	0.000	0.000	0.000			
	N	203	203	203			
Electronic Display	Correlation Coefficient	0.477 **	0.166 **	0.231 **	0.346 **		
	Sig. (1-tailed)	0.000	0.009	0.000	0.000		
	N	203	203	203	203		
Cleanliness	Correlation Coefficient	0.890 **	0.491 **	0.617 **	0.769 **	0.263 **	
	Sig. (1-tailed)	0.000	0.000	0.000	0.000	0.000	
	N	203	203	203	203	203	
Total Satisfaction	Correlation Coefficient	0.774 **	0.621 **	0.515 **	0.674 **	0.417 **	0.694 **
	Sig. (1-tailed)	0.000	0.000	0.000	0.000	0.000	0.000
	N	203	203	203	203	203	203

**. Correlation is significant at the .05 level (1-tailed).

The result of this study suggests that there is a strong correlation between the total Sportscape as well as its sub dimensions, and spectator satisfaction. By providing more insights into various elements of the Sportscape, stadium facilitators have a better idea of how to enhance the perceived value of the Sportscape. A word of caution - It is dangerous to conclude that if a stadium manager improves the perceived quality of the Sportscape the overall satisfaction will improve, as this study only explored a correlation hypothesis. Conversely it would be foolish to ignore this positive relationship. Petrick (2002) notes that the marketing concept holds true for sporting facilities and therefore, the needs and desires of spectators must be determined in order to develop the most appropriate delivery methods. Fan attendance is a major source of income and to increase fan attendance management must first understand what fans perceive as important. It is clear from the high mean ($M = 5.77$, $SD = 1.08$) that the electric scoreboard made an impression on spectators and that the majority of spectators perceived the scoreboard, its functions and information positively. The facility coordinator of SuperSport Park, should maintain the high quality of the scoreboard and the information it displays to spectators. The cleanliness mean ($M = 4.71$, $SD = 1.37$) although still above the midpoint of the seven-point Likert scale was the lowest of all the sub-dimensions. Many consumers implicitly associate cleanliness with the quality of the Sportscape (Wakefield & Blodgett, 1994:50). To maintain a high perceived quality a clean facility is essential.

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DESTINATION BRAND IMAGE AND PERCEPTIONS: A CASE STUDY OF SAN PARKS KUDU BRAND.

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ABSTRACT

The purpose of this research was to analyse how successful the current Kudu brand is as used by SANParks and what strategies can be developed to strengthen the brand.

This study measured the SANParks brand by focusing on the current Kudu logo by means of 618 (n=618) structured, self-completion electronic questionnaires. Using a perceptions and emotion related measurement tool, SANParks Kudu brand were tested. A factor analysis was conducted on the correlation of twenty four pre-established perceptions and eight pre-established emotions. Three factors - a successful brand, brand associated with high quality service and a positive brand image emerged as perceptions. These three factors resulted in a Cronbach Alpha coefficient of .921, .900 and .887 respectively. Two factors related to emotions were divided into positive and negative emotions towards the Kudu brand and resulted in a Cronbach Alpha coefficient of .858 and .794.

The findings indicated the Kudu brand to be successful, but recommendations were made to SANParks to differentiate their Kudu brand. This will help to create a unique culture and identity for each National Park in South Africa and help to strengthen the brand competing against other national parks in South Africa and within Africa.

INTRODUCTION

The selection of a vacation is more important for domestic and international tourists visiting South Africa than ever before, due to the fact that these tourists have had more experience of other global destinations visited (Ashworth and Goodall 1991:214). This argument was confirmed by Dahringer (1992:357) who implied that when a destination decides to develop a brand, the brand name and image become part of the total experience. Nilson (1998:47), Czinkola and Ronkainen (1991:284–287) and Balmer *et al.*(2000:156) indicates that these tourists often use brands and brand names to distinguish one destination from another.

Nilson (1998:47) points out that it is a fundamental business truth that a destination brand, like the Kudu logo used by SANParks, will not succeed unless it has a perceived competitive advantage over destinations that offer similar experiences. SANParks are offering a wildlife experience to visitors in South Africa but are competing against all other national and private parks within Africa. These include world-known wildlife destinations like Botswana, Zimbabwe, Tanzania and Kenya. The question that comes to mind is; why would tourists visit any of the South African National Parks to get a wildlife experience if they can get the same or even better wildlife experience (buffalo migration in Masai – Mara) in another African National Parks? This therefore emphasise the importance of a well known brand for destination marketing purposes.

Previous research on branding of national parks was done in Australia and Kenya during 2005. The Commonwealth of Australia (2007) completed research on the Kakadu National Park and Kenya Wildlife Services (2007) on Lake Nakuru National Park. Both focussed on the brand and what could be achieved after successful branding. Table 1 summarises the main problems encountered in each national park before branding and the solutions developed thereafter.

TABLE 1: Branding of Kakadu and Lake Nakuru National Parks

National Park	Before Branding	After Branding
Kakadu and Lake Nakuru National Parks	<ul style="list-style-type: none"> Both national parks was without a strong and credible brand and therefore faced negative outcomes such as little or no difference between the park and other parks Both national parks unique experiences were not familiar to the consumers Own perceptions of each national parks brand were formed by potential consumers Both national parks competed on price due to a lack of perceived value from consumers Competitors won business due to strong and positive brands 	<p>After developing a successful brand, Kakadu National Park emphasised three important factors namely:</p> <ul style="list-style-type: none"> the park's uniqueness had to be uncovered and explained by the brand the brand used in marketing needed to be able to attract consumers sensitive to the social, cultural and environmental values of the park and its people the brand had to relate to tourism market needs <p>Lake Nakuru National Park were successfully re-branded by:</p> <ul style="list-style-type: none"> making the park a more visitor friendly facility upgrading and refurbishing their facilities improving the park's security conducting a follow-up branding survey one year later

METHOD OF RESEARCH

A bilateral approach (Jennings, 2001:283) (Aaker *et al.*, 2004:215) was followed during the course of the study. A survey was conducted by means of a structured electronic questionnaire. The main aspects of the questionnaire concentrated on establishing the emotions and perceptions related to the Kudu brand. A total of 618 (n=618) questionnaires were completed electronically on SANParks official website during July and August 2007. The questionnaire mostly contained closed-ended questions. Open-ended questions were used where visitors could express their opinions on aspects such as suggestions to improve the Kudu logo (Roe, 2004:22).

Descriptive statistics were used to describe the aggregation of raw data in numerical terms (Field, 2005:10). Based on the goal of this study, bivariate analysis was used, because it enabled the researcher to indicate the relationship between two variables, which may or may not be related to each other (Jennings, 2001:294). Factor analysis was conducted on twenty four perceptions and eight emotions related to the Kudu logo.

RESULTS

According to Grace and O'Cass (2002:96-111) associations of a brand are very important indicators of the success of that brand. Respondents were shown the current Kudu logo used by SANParks for branding purposes and asked to indicate what they associate it with. Table 2 summarises these associations.

TABLE 2: Words associated with SANParks

Words	Percentage of respondents
Animals, Elephants, Nature, Wild, Wilderness, Trees, Custos Natura, Bush, Outdoors, Bushveld, Game, Birds and Big 5	22%
Kruger, Parks, Conservation, Habitat	17%

Relax, Relaxation, Peace, Camping, De-stress, Rest, Safe	14%
Nature, Environment, Wildlife, Reserve	12%
Amazing, Marvellous, Awesome, Impressive, Wonderful, WOW	4%
Holiday, Vacation	4%
Home, Homesick, Place, Soul, Belong	4%
Special moments, Longing, Dream, Memories, Photo, Wish	3%
SANParks, South Africa	3%
Experience, Paradise, Special, Heaven	3%
Atmosphere, Rustic, Smell, Unique, Unspoilt, Freedom, Easy living, Escape	2%
Beauty, Beautiful, Scenery, Serene	2%
Enjoyment, Happiness, Lucky, Excitement, Fun, Great	2%
Spaces, Mountain, Open	2%
Good, Well-known, Leaders	2%
Never heard, Availability of accommodation, Nothing	2%
High / expensive fees	1%

Twenty four pre-established brand perceptions and ideas were also tested. A total of 62.72% of variance has been explained. In principal components analysis, the amount of variance that is to be explained equals the number of variables. For twenty-four variables, a total variance of 24 must be explained. To calculate the proportion of the total variance explained by each factor, the loadings of the variable are squared on that factor and the squared loadings are added to give the Eigen value. Three components were extracted with Eigen values of more than one. The first component = 12.158, the second component = 1.553 and the third = 1.343. Direct Oblimin are used to take the initial principal components that explain most of the variance in variables and rotate them to make their meaning clearer. These Direct Oblimin factors are allowed to correlate or be oblique to one another. Two methods are used to represent the results of an oblique rotation. The first is the pattern matrix (Table 3) which shows the unique contribution that each variable makes to each factor but not the contribution that is shared between factors if the factors are correlated.

TABLE 3: Pattern Matrix – Brand Perceptions

PATTERN MATRIX			
Aspect	Component		
	Successful brand	Service	Positive image
RECOGNISABLE	.767		
DISTINGUISHED	.761		
ESTABLISHED	.653		
INTERNATIONAL BRAND	.612		
PROUD HISTORY	.598		
RELEVANT	.573		
SIMPLISTIC	.560		
CREDIBLE	.499		
HIGHLY VISIBLE	.487		
PROUDLY SA	.447		
ENHANCES	.416		
SERVICE LEVEL		-.860	
INTEGRITY		-.849	
QUALITY PRODUCT		-.835	
RELIABILITY		-.604	
VALUE		-.481	

GOOD IMAGE		-.385	
SOCIAL UPLIFTMENT			-.835
CREATIVE			-.817
INNOVATIVE			-.778
CONSERVATION			-.694
CAPTURES			-.585
COLOURS			-.520
TALKED ABOUT			-.472
Cronbach Alpha	.921	.900	.887

The pattern matrix was also used to determine the Cronbach Alphas. The Cronbach Alpha coefficient is used to indicate the reliability of the questionnaire. Any reliability coefficient of .70 or higher is considered acceptable (UCLA, 2008) (see Table 3). Factor 1 (successful brand) resulted in a Cronbach Alpha coefficient of .921. Factor 2 (service) resulted in a Cronbach Alpha coefficient of .900. The third factor (positive image) resulted in a Cronbach Alpha coefficient of .887. All three factors therefore indicate good internal reliability of the questionnaire.

The structure matrix is the second method of representing the results of an oblique rotation and indicates the overall contribution that each variable makes to a factor (Table 4).

TABLE 4: Structure Matrix – Brand Perceptions

Aspect	Component		
	Successful brand	Service	Positive image
RECOGNISABLE	.804	-.453	-.441
ESTABLISHED	.779	-.578	-.491
RELEVANT	.772	-.491	-.663
PROUD HISTORY	.759	-.542	-.557
INTERNATIONAL BRAND	.753	-.456	-.571
DISTINGUISHED	.750	-.331	-.390
CREDIBLE	.718	-.694	-.525
HIGHLY VISIBLE	.681	-.495	-.577
SIMPLISTIC	.506		
PROUDLY SA	.703	-.491	-.704
ENHANCES	.667	-.435	-.701
SERVICE LEVEL	.400	-.863	-.468
QUALITY PRODUCT	.415	-.859	-.489
INTEGRITY	.453	-.849	-.420
RELIABILITY	.499	-.787	-.642
VALUE	.384	-.684	-.662
GOOD IMAGE	.609	-.700	-.721
CREATIVE	.460	-.486	-.843
INNOVATIVE	.413	-.525	-.817
SOCIAL UPLIFTMENT		-.461	-.787
CONSERVATION	.534	-.460	-.785
CAPTURES	.672	-.368	-.735
COLOURS	.561	-.390	-.663

TALKED ABOUT	.499	-.481	-.645
Total	13.791	12.88	14.29

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalisation.

The factors were rotated with Direct Oblimin, giving essentially similar results. The **first factor** seems to reflect the characteristics of a successful brand as results indicated an easily recognisable brand, a well established brand, brand still relevant today, brand associated with a proud history of organisation, considered as an international brand, easily distinguishable from other conservation organisations, credible, highly visible, simplistic, proudly South African and a brand that enhances marketing efforts. The **second factor** appeared to represent service as results indicated an association with high service levels linked to brand, association of high quality products, associated with integrity, portraying reliability, value for money and portraying a good image. The **third factor** appeared to represent a positive image as results indicated a creative logo, an innovative brand, reflecting social upliftment, portraying a function towards conservation, capturing the essence of national parks, using appealing colours, and a brand that is much talked about. It can therefore be concluded that the Kudu logo creates a positive image in the mind of visitors, that it is a token associated with high quality service and is a well known and established brand.

TABLE 5: Component Correlation Matrix – Brand Perceptions

Component	Successful Brand	Service	Positive image
Successful Brand	1.000	-.463	-.531
Service	-.463	1.000	.538
Positive image	-.531	.538	1.000

Table 5 shows the component correlation matrix. The covariance was standardised to give a value that lies between -1 and +1. A coefficient of +1 indicates that the variables are perfectly positively correlated which means that as one variable increases the other also increases by a proportionate amount. Conversely, a coefficient of -1 indicates a perfect negative relationship: if one variable increases the other decreases by a proportionate amount. A coefficient of 0 indicates no linear relationship at all, so if one variable changes, the other stays the same. Because the correlation coefficient is a standardised measure of an observed effect, it is a commonly used measure of the size of an effect. Values of $\pm .1$ represent a small effect, $\pm .3$ is a medium effect and $\pm .5$ is a large effect (Field, 2005:111). Therefore the three components (successful brand, service and positive image) are perfectly positively correlated and have a large effect on each other.

The same process as above was followed on eight pre-established brand emotions and results are indicated in Table 6 and 7.

TABLE 6: Pattern Matrix – Brand Emotions

PATTERN MATRIX		
	Component	
	1: Positive brand emotions	2: Negative brand emotions
EXCITEMENT	.811	
HOPE	.777	
TRUST	.772	
ANTICIPATION	.752	
PRIDE	.750	
PEACEFUL	.731	
CONTEMPT		.930
DISGUST		.899
Cronbach Alpha	.858	.794

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalisation.

The pattern matrix (Table 6) was also used to determine the Cronbach Alpha's. The Cronbach Alpha coefficient is used to indicate the reliability of the questionnaire. Factor 1 (positive brand emotions) resulted in a Cronbach Alpha coefficient of .858. Factor 2 (negative brand emotions), resulted in a Cronbach Alpha coefficient of .794.

Both factors therefore indicate good internal reliability of the questionnaire.

The structure matrix is the second method of representing the results of an oblique rotation and indicates the overall contribution that each variable makes to a factor (Table 7).

TABLE 7: Structure Matrix – Brand Emotions

	Component	
	1: Positive brand emotions	2: Negative brand emotions
EXCITEMENT	.807	
TRUST	.779	
PRIDE	.765	
HOPE	.763	
ANTICIPATION	.749	
PEACEFUL	.736	
CONTEMPT		.918
DISGUST	-.326	.914

Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalisation.

The factors were rotated with Direct Oblimin, giving essentially similar results. The **first factor** seems to also reflect positive brand emotions as results indicated excitement, hope, trust, anticipation, pride and peacefulness as all these variables loaded highly on it. The **second factor** appeared to reflect negative brand emotions as there was a strong disagreement to the two emotions contempt and disgust. The two Varimax factors accounted for 0.68 and 0.19, respectively, of the total variance. The two Direct Oblimin factors correlated with 0.22. It can therefore be concluded that the Kudu logo creates positive brand emotions.

TABLE 8: Component Correlation Matrix

Component	Positive brand emotions	Negative brand emotions
Positive brand emotions	1.000	-.311
Negative brand emotions	-.311	1.000

Table 8 shows the component correlation matrix. Similar to Table 5, the two components (positive and negative brand emotions) are perfectly positively correlated but have a smaller effect on each other.

CONCLUSIONS

The goal of this study was to analyse the SANParks brand by focusing on the current Kudu logo. This was achieved by conducting a literature review on the role of branding in tourism marketing, identifying different models that are used to measure brand effectiveness and lastly by evaluating the emotions and perceptions created by the use of the Kudu logo.

Because most respondents do not want the Kudu Logo to change, the following are examples of how the logo could be adapted to differentiate each of South Africa's national parks but still keep the already successful brand.

Option 1 Keep the current Kudu Logo and add to the bottom of SANParks the name of each national park e.g. SANParks KRUGER.



**SANPARKS
KRUGER**

- Option 2** Keep the current Kudu Logo and add to the bottom only the name of each national park eg. KRUGER NATIONAL PARK



**KRUGER
NATIONAL PARK**

- Option 3** Keep the current Kudu Logo and add to the bottom only the name of each national park plus South Africa eg. KRUGER NATIONAL PARK, SOUTH AFRICA



**KRUGER
NATIONAL PARK
SOUTH AFRICA**

By implementing any of the above options, differentiation and uniqueness can be created for each of the South African National Parks. This will also help tourists to easily identify marketing done by each national park or by SANParks. It will also assist in creating a sense of pride, belonging and ownership among SANParks employees. This, in turn, can even help SANParks employees to identify each other when gathered on a national or international level.

Because none of the service levels are known to tourists who visit any of the South African national parks, the following options can be implemented: add to the bottom of SANParks the name of each national park, the rest camp applicable and indicate the service star rating for the rest camp applicable under the national parks name or add to the bottom of SANParks the name of each national park, the rest camp applicable and indicate the service star rating for the rest camp applicable between the Kudu horns.

Implementing either of these two options will provide a clear indication to potential tourists what to expect of each rest camp in the various national parks regarding service. It will therefore help to create a reasonable expectation about service prior to the visit. This will help to improve visitor satisfaction as there will be no surprises in store regarding expected service. It can also serve as a motivation for staff to improve the current service rating of the applicable rest camp. All the rest camps within each national park can also compete among each other to reach the top service rating which can result in higher turnovers.

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COMPARATIVE ANALYSIS OF BANKS' RESERVE REQUIREMENTS COMPUTATION IN SERBIA, MONTENEGRO AND BOSNIA AND HERZEGOVINA

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ABSTRACT

Reserve requirements are one of the most important monetary policy instruments regulating banks credit potential. In spite of significant differences in required reserve ratios and the reserve computation base, bank systems of Serbia, Montenegro and Bosnia and Herzegovina belong to a large group of market economies with interest earning reserve requirements, although with different interest rates paid on them to banks by the central bank. In developed market economies, the role of reserve requirements as an instrument for money supply control is much smaller than in the countries in transition, as three countries considered in this paper. Computation of reserve requirements is different in each of them, for all the criteria taken into consideration.

THEORETIC ASPECTS OF RESERVE REQUIREMENTS

Reserve requirements (or required reserves) are one of the oldest and most frequently used forms of portfolio regulation of the usage of a portion of bank assets in market economies. They can be defined as a monetary policy instrument requiring from banks to hold a certain portion of their portfolio as vault cash or on deposit at the central bank. Reserve requirements on banks are used today as an instrument having impact on credit and monetary multiplier, and thus influencing credits flow and money supply in various ways – by:

- applying to: different reserve computation bases – uniform or differentiated one, comprising positions of liabilities and/or assets in banks' balance sheets; to daily bookkeeping balance or to average amounts of banks' balance sheets positions; to balance or its changes (margin base);
- applying uniform or differentiated ratios;
- depositing required reserves on a special or a regular account with the central bank;
- allowing or not allowing temporary usage of required reserves for securing bank liquidity;
- paying or not paying interest on the funds deposited as required reserves by the central bank;
- applying reserve requirements as (one of) main or secondary monetary policy instrument; as a stable or flexible instrument; with smaller or bigger restrictions on deciding on reserve requirements by central bank.

There are mainly two basic options for the choice of reserve requirement computation base. One of them is to include certain forms of bank assets in reserve requirement computation base. In this case, the reserve requirements will have impact on assets structure in banks' balance sheets in favor of those forms of credit institutions assets that imply lower reserve requirement ratios or which are not included in the reserve base at all. However, the second option, including certain forms of bank liabilities (as the parts of its deposit potential) in reserve requirement computation base, is usually implemented. The reserve requirements calculated in that way have advantage over reserve requirements calculated based on certain forms of bank assets.

The reserve requirements calculated based on bank liabilities do not cause distortions in credit institutions' investments and make their adjustment process easier in case of their deposit potential reduction, because reserve requirements are reduced in such situation, as well.

There are two basic approaches about initial criteria for determining optimal level of reserve requirements. According to the first one, optimal reserve requirement ratio should induce maximum effects on monetary regulation (of necessary money supply in circulation). The second approach to determining optimal reserve requirement level (set wider than by the first one) begins from the implications of various levels of reserve requirements on achieving maximum efficiency in the functioning of the whole financial system.

Upon the influence of the process of financial innovations (enforcing the role of market mechanism in the financial sector of an economy), strongly developed in modern market economies at the end of 1970s and during 1980s, a theoretic view treating the reserve requirements as interest earning financial assets was established. An opinion was accepted that the level of interest rate paid on required reserves should be linked to the official discount rate of the central bank. In great number of developed or less developed market economies (like Spain, Sweden, Turkey, Australia, Finland, Greece, Island and Italy) the system of interest earning required reserves functions already. Interest rate paid on allocated required reserves in those countries is lower than market interest rate, while certain forms of banks' assets within allocated required reserves remain without any compensation. There is an opinion that banks' required reserves deposits with the central bank represent for the banks such investments that have no burden of any risk and it is therefore justified to pay lower compensation (interest) on such type of investment than the interest rate on other forms of bank assets, determined by market relations of supply and demand. The Central Bank of England uses special deposits as the substitute of reserve requirements and it pays the same interest on them as on treasury bills. Nevertheless, a number of other countries still keep non-interest earning reserve requirements – Germany, France, USA, etc.

Reserve requirements have stronger influence and are used as an instrument for regulating bank credit potential rather than financial potential or bank liquidity, as average ratio of reserve requirements to banks' credit potential is around 11.5% and only around 5% to the financial potential. There are optimal and equilibrium reserve requirement ratios. Optimal reserve requirement ratio is such ratio of allocating and releasing funds that enables bank and credit system normal functioning, with maintaining normal credit activity and liquidity of banks and the economy, without expansive or restrictive credit policy. Equilibrium reserve requirement ratio is such ratio that would fit its long-term trend around which short-term ratios fluctuate.

In respect of operating with these instruments, theoretically there are three preliminary concepts:

- fixed reserve requirement ratio in a long term period,
- reserve requirements changes are done only exceptionally, in predetermined conditions of economy development and monetary policy implementation, or
- in order to provide more efficient monetary regulation, in a shorter time period, changes of these ratios are to be done, both upwards and downwards.

Reducing reserve requirement ratio is no problem for banks and the economy, especially in the economy with permanently higher demand than supply of money and credits. However, a problem occurs when reserve requirement ratio is to be raised. The rise of reserve requirements usually causes credits withdrawal from the economy, because the banks are faced with the effects of reserve requirements rise faster than they could withdraw a portion of credits from economy and direct it into raised required reserves. The central bank prescribes the rate for allocation of certain funds in respect to various categories of deposits or to the credit growth rate. In developed market economies, the role of reserve requirements as an instrument for money supply control is much smaller than in the countries in transition or in less developed countries (like three countries considered in this paper), while there is much higher importance of short term interest rates on which the central bank has indirect impact through buying and selling securities, i.e. through open market operations.

RESERVE REQUIREMENTS ON BANKS IN SERBIA

The main monetary policy instruments of the National Bank of Serbia are: open market operations, lending and deposit facilities (standing facilities), and reserve requirements. Monetary policy instruments do not have a direct impact on monetary policy objectives. As there can be a several month lag in the effect of monetary

policy, the National Bank of Serbia focuses on the achievement of operating and intermediate targets. Operating targets are easy to control, but are remote from the ultimate objective, while intermediate targets are hard to control, but closer to the ultimate objective. As in the case of more developed market economies, and particularly those pursuing inflation targeting regime, the National Bank of Serbia's operating target are interest rates in the inter-bank money market, and its intermediate target is the inflation projection. Required reserves are funds, which banks have to deposit on a special account with the central bank. The amount of such funds is determined by the reserve requirement ratio, which may be either uniform or differentiated, and applicable to either total deposits or a portion of deposits.

By changing the reserve ratio, the central bank induces a reduction or expansion of commercial banks' lending potential, and/or creation of additional liquidity. In market economies, reserve requirement ratio is used as an instrument for regulating bank credit potential rather than bank liquidity. The National Bank of Serbia uses reserve requirements only as a supportive instrument when the effects of all other market-based measures for monetary regulation are exhausted. Decisions on the level of reserve ratios and the reserve base are taken by the National Bank of Serbia's Monetary Policy Committee.

Pursuant to the Decision on Required Reserves of Banks with the National Bank of Serbia ("RS Official Gazette", Nos. 116/2006, 3/2007, 31/2007, 93/2007, 35/2008, 94/2008, 100/2008, 107/2008, 110/2008, 112/2008, 12/2009, 39/2009, 44/2009, 47/2009, and 111/2009) [1], banks calculate required reserves against:

- dinar deposits, credits and securities as well as other dinar liabilities, including liabilities arising from dinar deposits received under transactions performed in the name and for the account of third parties that are in excess of the amount of bank investment made from such deposits; and

- foreign currency deposits, credits and securities and other foreign currency liabilities, including liabilities arising from subordinated foreign currency liabilities, as well as deposits, credits and other foreign currency balances received from abroad under transactions performed in the name and for the account of third parties.

By way of exception, banks do not calculate required reserves against:

- liabilities to the National Bank of Serbia;
- liabilities to banks allocating required reserves with the National Bank of Serbia;
- liabilities arising from implementation of the law and other regulations pertaining to government public debt in respect of the citizens' frozen foreign currency savings deposits;
- liabilities to the Paris and London Club creditors;
- special purpose deposits arising from the sale and purchase of bonds issued against citizens' frozen foreign currency savings for the purpose of regulating government public debt, and special purpose deposits of enterprises and entrepreneurs arising from exchange transactions;
- household time dinar savings deposits collected in the period October 31 through November 6, 2005 until the expiry of the term period of such savings deposits, foreign currency savings deposits collected in the period 1 through 7 November 2004 and October 31 through November 6, 2005 until their date of withdrawal, as well as household time foreign currency savings deposits collected in the period October 31 through November 7, 2007 until the expiry of the term of such savings deposits; and
- dinar and foreign currency denominated liabilities in respect of credits and deposits received from abroad in the period October 1, 2008 through December 31, 2010, until the originally established maturity of such liabilities.

When calculating required reserves, banks reduce the amount of their reservable liabilities by:

- investment earmarked for humanitarian purposes from foreign currency credits extended by international financial organizations under agreements concluded after December 31, 2004;

- long-term housing credits underwritten by the National Corporation for Housing Loan Insurance;
- banks' frozen foreign currency balances held abroad provided that such assets were frozen prior to December 31, 2000;
- loans approved to enterprises for investment purposes in line with the Government Program (of Measures for Easing the Negative Effects of the World Economic Crisis in the Republic of Serbia);
- consumer loans approved in line with the Government Program for the purchase of durable consumer goods manufactured in the Republic of Serbia; and
- amount of dinar and foreign currency-clause indexed loans approved under the Government Program after April 30, 2009 for the maintenance of liquidity and financing of long-term current assets, excluding rescheduled loans; the base reduction, however, must not exceed the increase in total lending to enterprises since April 30, 2009, with the effects of changes in the exchange rate of the dinar excluded.

Banks calculate required reserves by applying the following differentiated reserve ratios:

- to the dinar reserve computation base:
 - 10% ratio – to the dinar reserve base;
 - 5% ratio – to the portion of dinar reserve base comprised of dinar liabilities arising from savings deposits termed for a period over one month;
 - 45% ratio – to the portion of dinar reserve base comprised of foreign currency clause-indexed dinar liabilities;
 - 45% ratio – to the portion of dinar reserve base comprised of dinar liabilities in respect of foreign deposits and credits, up to the level of that base as in September 2008;
 - zero % ratio – to the amount of positive difference between the portion of dinar base comprised of dinar liabilities in respect of foreign deposits and credits from the previous calendar month and the same portion of dinar base from September 2008 (ending with the calculation of required reserves on July 17, 2010);
- to the foreign currency reserve computation base:
 - 45% ratio – to the foreign currency reserve base;
 - 40% ratio – to the portion of foreign currency reserve base comprised of liabilities arising from foreign currency savings deposited with banks;
 - 20% ratio – to the portion of foreign currency reserve base comprised of subordinated liabilities, up to the level of that base as in September 2008;
 - 100% ratio – to the portion of foreign currency reserve base comprised of foreign currency assets kept by leasing providers on special accounts with banks;
 - zero % ratio – to the amount of positive difference between the portion of foreign currency reserve base comprised of foreign currency liabilities in respect of foreign deposits and credits from the previous calendar month and the same portion of foreign currency base from September 2008 (ending with the calculation of required reserves on July 17, 2010), while the ratio of 45% is applied for calculating foreign currency required reserves on the portion of foreign currency reserve base comprised of foreign currency liabilities in respect of foreign deposits and credits up to the level of such portion of foreign currency reserve base from September 2008;

- zero % ratio – to the amount of positive difference between the portion of foreign currency reserve base comprised of subordinated liabilities from the previous calendar month and the same portion of foreign currency reserve base from September 2008 (ending with the calculation of required reserves on July 17, 2010).

Banks calculate required reserves once a month, i.e. on the 17th day of a month by applying appropriate ratio to the average daily bookkeeping balance of dinar and/or foreign currency assets included in the base for the calculation of required reserves in the preceding calendar month and taking into account all of its days.

By way of exception, beginning from the maintenance period December 18, 2008 through January 17, 2009 and ending with the maintenance period March 18, through April 17, 2010 the portion of dinar reserve base comprising dinar-denominated liabilities under deposits and credits received from abroad, as well as the portions of foreign currency reserve base comprising foreign currency-denominated liabilities under deposits and credits received from abroad and foreign currency subordinated liabilities, are the average daily bookkeeping balance of such obligations as in September 2008 if the average daily bookkeeping balance of such obligations in the prior calendar month is lower than the corresponding balance from September 2008.

Calculated dinar required reserves are the sum of:

- required reserves calculated in dinars by applying appropriate ratios to the dinar reserve base, and
- 40% of the dinar equivalent of the prescribed amount of required reserves calculated in euros.

Calculated foreign currency required reserves equal 60% of required reserves calculated in euros by applying appropriate ratios to the foreign currency reserve base. An exception in this respect are required reserves calculated on foreign currency assets held by leasing providers with banks, which equal 100% of required reserves calculated in euros.

Calculated dinar required reserves are allocated in dinars. Calculated foreign currency required reserves are allocated in euros. However, banks whose foreign exchange risk ratio could deviate from the ratio prescribed due to the allocation of foreign currency required reserves in euros, may effect the allocation of such reserves in US dollars.

During the reserve maintenance period (from the 18th of the month to the 17th of the following month) banks have to maintain the average daily balance of allocated dinar and/or foreign currency required reserves at the level of calculated dinar and/or foreign currency required reserves, although daily balance of allocated dinar and/or foreign currency required reserves may be lower or higher than the level of calculated required reserves. When calculating the average daily balance of allocated dinar and/or foreign currency required reserves, all days of the maintenance period are to be taken into account. Banks have to maintain the daily balance of allocated foreign currency required reserves at the level of such reserves as calculated against liabilities arising from foreign currency savings deposits with banks.

Interest on required reserves is calculated and paid or charged in the currency in which the reserves are allocated. On the second business day following the expiration of the maintenance period, the National Bank of Serbia pays to banks interest in dinars – on the actual average daily balance of allocated dinar required reserves in the maintenance period which does not exceed the level of calculated dinar required reserves – by applying the rate of 2.5% p.a.

The National Bank of Serbia charges interest to banks by applying the rate equal to:

- 150% of the discount rate to the amount of difference between the calculated amount and actual average daily balance of allocated dinar required reserves and to the amount of difference between the prescribed and calculated dinar required reserves;
- three month EURIBOR applicable on the date of interest calculation, increased by 10 percentage points to the amount of difference between the calculated and actual average daily balance of allocated foreign

currency required reserves and to the amount of difference between the prescribed and calculated amount of foreign currency required reserves.

Pursuant to the Decision on Special Facilities Supporting the Country's Financial Stability ("RS Official Gazette", Nos. 34/2009, 36/2009, 51/2009, 83/2009, and 95/2009), beginning from the maintenance period November 18, 2009 through December 17, 2009, banks could allocate in dinars 20% of their foreign currency required reserves calculated in euros, instead of 40% envisaged by the valid Decision on banks' required reserves.

RESERVE REQUIREMENTS ON BANKS IN MONTENEGRO

The banks in Montenegro calculate and allocate reserve requirements according to provisions of the Decision on Bank Reserve Requirements to be held with the Central Bank of Montenegro ("Official Gazette of Montenegro", Nos. 9/07, 65/08, 15/09, and 41/09) [2]. Based on the amended Decision, the system of reserve requirement calculation for sight and time deposits (that are now all included in the reserve computation base) has been established by either applying the uniform ratio of 10% (reduced by 1% and implemented instead of previous differentiated ratios) on the average amount of deposits from the first maintenance period in June 2009 or on the average amount of total deposits in the current period if the same is lower than the average amount of deposits from the first maintenance period in June 2009. This means that reserve requirements are not calculated on the increase of deposits, but on the amount of deposits from the first maintenance period in June 2009.

The banks calculate and submit to the Central Bank the reports in the prescribed forms on a weekly basis. Depositing into or withdrawing reserve requirement funds from the reserve requirement account in the country, into the CBM accounts abroad, and in the form of Government T-bills up to 25% (instead of previous 20%), are performed on Wednesdays. Calculated and allocated reserve requirement funds of the banks with the Central Bank as at February 28, 2010 amounted to EUR 166.3 million, out of which 63.5% was deposited in the reserve requirement account in the country, 13.9% in the CBM accounts abroad, and 22.6% in the form of Government T-bills.

The Central Bank pays interest to the banks, on 25% (instead of previous 30%) of the allocated bank reserve requirement, at the interest rate of 1% p.a. The banks may use up to 50% of their reserve requirement deposits interest free to maintain their daily liquidity (but no more than ten working days in a month), provided that they return the used amount on the same day. If the bank fails to return the used amount of reserve requirements on the same day, it pays 7% (instead of previous 11%) p.a. interest rate, and 12% p.a. interest rate on the amount of the difference between the prescribed and less allocated reserve requirements stemming from the wrong calculation.

RESERVE REQUIREMENTS IN BOSNIA & HERZEGOVINA

The reserve requirements on banks in Bosnia and Herzegovina are regulated by the Law on the Central Bank of Bosnia and Herzegovina („Official Gazette of BiH“, Nos. 1/97, 29/02, 8/03, 13/03, 14/03, 9/05, and 76/06) [3], where it is stipulated that:

- the Central Bank's Governing Board define the minimal amount of required reserves, implemented equally for all banks, maintained by way of deposits with the Central Bank, and calculated on deposits and borrowed funds, as average daily reserves over ten day periods, regardless in which currency the funds are denominated and which banks are subject to hold with the Central Bank, either through its Main Office or Main Units;

- the compensation paid by the Central Bank to banks on the amount of their required reserves is determined by the Governing Board regulation;

- if a bank fails to fulfill its required reserves for two consecutive periods, the Central Bank ceases to process withdrawal transactions for the bank, and informs the appropriate banking authorities so that the

appropriate measures are taken to correct the shortfall within the same period, i.e. ten days; if the failure to fulfill the reserve requirement continues for another period, i.e. ten days, the Central Bank informs the appropriate banking authorities so that they can undertake appropriate steps against the bank; the Central Bank imposes on and collects from any bank that fails to maintain the required reserves prescribed by the Central Bank a penalty of up to five per mil (5/1000) per day on the shortfall in such bank's required reserves, until the shortfall is corrected;

- the Central Bank, on the instructions of the responsible Banking Agency opens a special reserve account for any commercial bank which is required to block deposits, transactions or otherwise of persons or companies identified by a blocking order issued by or under the authority of the Banking Agency of Republika Srpska or of the Federation of Bosnia and Herzegovina; any commercial bank which has an obligation under a blocking order issued as aforesaid, is required to transfer immediately an equivalent amount from its reserve account at the Central Bank of Bosnia and Herzegovina into such special reserve account; the funds remain in this special reserve account until release is authorized by the responsible Banking Agency; the Central Bank of Bosnia and Herzegovina, upon the instructions of the responsible Banking Agency, blocks all reserve accounts of any commercial bank which fails to comply with the instructions as aforesaid of the responsible Banking Agency; the accounts remain blocked until the Central Bank of Bosnia and Herzegovina receives an authorization from the responsible Banking Agency to allow the account or accounts to be unblocked.

The Central Bank changes the reserve requirements ratio in accordance with its financial and monetary policy, so that (e.g.) it was 14% for short term deposits and borrowed assets in the period January 1 through June 30, 2009, but for long term deposits and borrowed assets it was reduced from 10% in the period January 1 through April 30 to 7% in the period May 1 through June 30, 2009. The funds borrowed from foreign banks after October 31, 2008 as well as (since May 1, 2009) the funds that entities governments invest in development projects are exempted from the reserve computation base. Since April 1, 2009 interest is calculated and paid on required reserves at the rate of 0.5% (instead of previous 1%) p.a.

CONCLUSION

Serbia, Montenegro and Bosnia and Herzegovina are all neighbor countries in the Southeastern Europe. They used to be the constituents of the former Yugoslavia. As economies in transition, they are on almost equal level of development and with similar socio-economic situation, problems and macroeconomic indicators.

Nevertheless, their governments run relatively different macroeconomic policies. These three countries, that used to have common currency just two decades ago, now have different currencies and their central banks create and implement particular monetary policies, by means of various monetary policy instruments.

Reserve requirements are one of them and the central banks of these three countries rely, among others, upon this instrument in regulating banks credit potential as well as their liquidity, mostly by changing the structure of reserve requirement base and the level of reserve requirement ratio.

Beside different level, reserve ratio may be either uniform or differentiated, and either applicable to all funds or differing in respect to the funds denomination currency. Reserve maintenance period, interest paid on them to the banks, and penalty paid on the amount of reserves that are not provided are also completely different.

Table 1 represents the comparison of current conditions for reserve requirements computation made for observed three countries per six mentioned criteria. It shows that their central banks apply reserve requirements quite differently. The only common characteristic is that required reserves are interest earning in all three countries, but at the interest rate that is different, just as all other elements of required reserves computation.

Table 1: Comparison of Reserve Requirements Computation in Observed Three Countries per Six Criteria

Criterion Country	Reserve Requirem ent Maintena	Whether RR Ratio Depends on the Funds Denomination	Whether RR Ratio is Uniform or Differentiate	Reserve Requirement (RR) Ratio	Interest Paid by the CB to the Banks	Penalty if a Bank Fails to Fulfill
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	nce Period	Currency or not	d			the RR
Serbia	30 days	Yes	Differentiated	10% on dinar & 45% on for. curr. reserve base	2.5% p.a.	3m- Euribor + 10% or 150% discount rate
Montenegro	7 days	No	Uniform	10%	1% p.a. on 25% of RR	12% p.a.
Bosnia and Herzegovina	10 days	No	Differentiated	14% on short- & 7% on long- term funds	0.5% p.a.	5‰ per day

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INFORMATION TECHNOLOGY APPROACH TO THE SHORT TERM FORECASTING AND FOREIGN EXCHANGE RISK MANAGEMENT

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ABSTRACT

A simple but reliable business model for short-term prediction of foreign exchange rates fluctuations has been developed as software CurrTrEx (Current Currency Trends Explorer). Besides everyday tracking of nominal exchange rates fluctuations within a week, 1, 3, 6, 9, and 12 months, the application enables estimation of: real values of basic (domestic) currency and 14 foreign currencies (presented in their normalized values), the direction and rate of their changes, and possible variations from linear trend approximation in the near future. The reliability of forecast based on the evaluation of recent trends is higher for a shorter period and currencies with smaller standard deviation, especially if the same trend already identified in the longer period is confirmed.

CONCEPT OF NEW APPROACH TO EXCHANGE RATES

New software application would estimate domestic currency, taken as the basic one, and selected foreign currencies, according to their exchange rates to it. Therefore, parameters to define in a text data file would be this basic currency & the number, symbols and exchange rates of foreign currencies to be observed. National currency in the Republic of Serbia is (Serbian) dinar (RSD). In USA it is US \$, in South Africa – Rand. Flexibility of this concept enables changing the basic currency entity and application of software in any other country in the world.

Central bank (in our case the National bank of Serbia – NBS) publishes official middle exchange rates lists on its website [1] each business day. They actually contain nominal dinar values of certain number of foreign currencies. Eleven out of them have been selected and included in the foreign currencies entity, but they can be replaced by any other currency and three optional currencies may be added. Interrelationships among dinar values of various foreign currencies show their cross exchange rates. Since their total dinar value determines actual value of dinar as the basic currency in relation to (selected) currencies, and there is practically no need to monitor all foreign currencies, an ensemble with a sufficient number (e.g. 11) of foreign currencies – representative enough and relevant for the economy or a particular business – should be selected and their daily exchange rates entered.

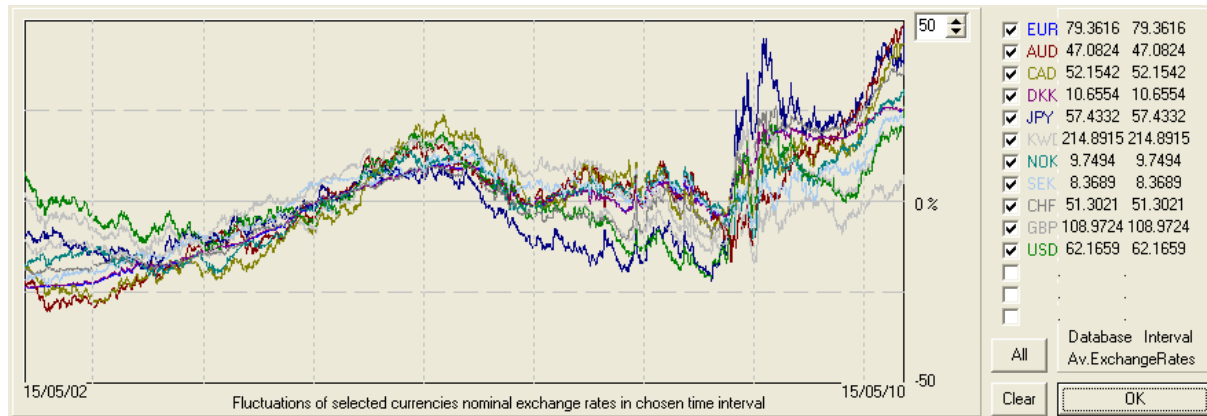
Daily foreign exchange rates have been available from NBS in an electronic form since May 15, 2002, but not as entire database, because the lists can be downloaded only for particular days per request. Both access and updating are on daily basis. Source data (for specific dates) are thus viewed directly, without any processing. They are necessary and useful for everyday transactions, but unsuitable for the evaluation of past and estimation of future trends, what is the purpose of new software application. Online sources [2, 3, 4] offer only daily insight into exchange rates lists, conversion calculators, and graphical presentation of foreign currencies exchange rates.

Real-time processing requires derived information for a longer period (of one or three weeks, one, three, six, nine or twelve months) preceding the moment of analysis. The more recent this period is, the more indicative view of tendencies (provided by new application) is for the prediction of near future trends. The fluctuations of foreign currencies, measured in basic currency, occasionally change direction. Their different dispersion around the trend shows the degree of the currency stability and the level of confidence in short-term forecast based on it.

Nominal value of selected currencies exchange rates is presented on the ordinate, in relative manner – normalized to their average in the observed period and expressed in percentages. Accumulated at different points

in time, presented on the abscissa in Figure 1, they indicate the value of domestic currency and its changes: they are negative when the values of foreign currencies entity are grouped in positive half of the scale, and vice versa. Average exchange rates for the period for which their database is available (being last eight years and unknown to our public so far) and for the analysis interval selected are displayed on the right side of application's diagram.

Figure 1: Fluctuations of normalized nominal exchange rates of selected 11 currencies during last 8 years



PROCESSING ALGORITHMS

Discrete nominal values of currencies listed in the official Central bank's (in case of dinar – National Bank of Serbia) exchange rates lists are to be processed. They produce a series of real numbers $V_{i,j}$ where:

i – is the position on the date scale, from 1 to N , and indicates the length of the data base, as well, and
 j – is the actual currency number, from 1 to M , while $M - 1$ represents the number of foreign currencies that can be taken into account and M is the number that belongs to the domestic currency (which is dinar in this case).

Normalized values of these currencies are also introduced, in accordance with the following definition:

$$(1) \quad \bar{V}_j = \frac{1}{B - A + 1} \cdot \sum_{i=A}^B V_{i,j}.$$

The equation above represents the average nominal value of a currency in the given interval, where A and B are lower and upper bound of the normalizing interval, when the conditions that $1 \leq A < B$ and $A < B \leq N$ are fulfilled. The normalized values i.e. exchange rates of all observed currencies to their own average are then:

$$(2) \quad \Psi_{i,j} = V_{i,j} / \bar{V}_j.$$

Relative values (in percentages) of the currencies normalized values are expressed in the standard form:

$$(3) \quad \Psi_{i,j} [\%] = \frac{V_{i,j} - \bar{V}_j}{\bar{V}_j} \cdot 100 = (\Psi_{i,j} - 1) \cdot 100.$$

An example of such percentile presentation, with normalized values of selected currencies fluctuating about their average (normalized and represented with 0 %) in the selected time interval, can be seen in Figure 1.

In addition to the elementary processing, such as finding the maximum or minimum, and calculating the relationships among currencies values and their sorting, the following more complex algorithms are applied, too.

Estimation of the Basic (Domestic) Currency Real Value

The basic currency of an exchange rates list is generally the domestic currency (being dinar in this case) and it can be observed only in relative relation to selected foreign currencies. Using their normalized values $\Psi_{i,j}$,

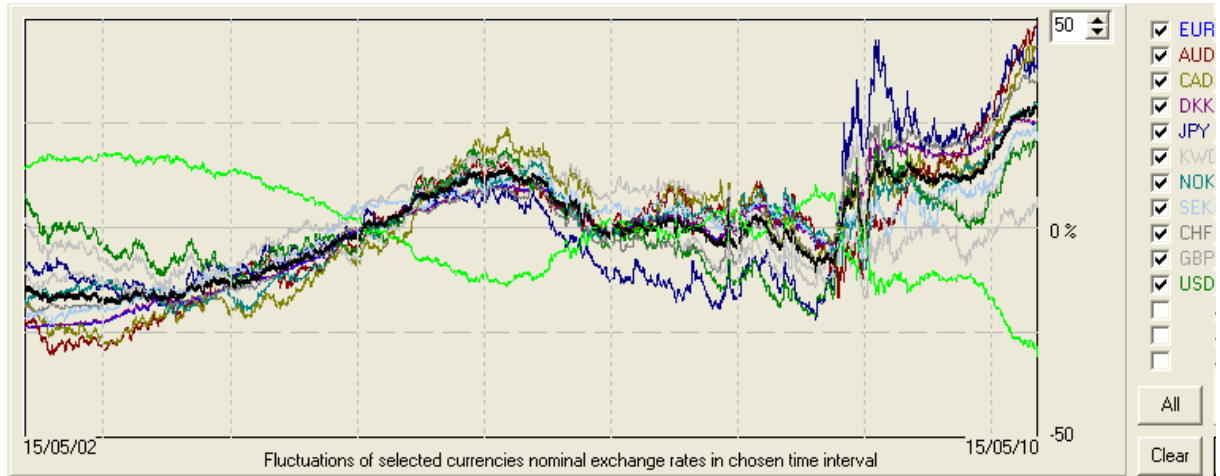
$$(4) \quad W_{i,D} = 1 - \frac{1}{B_V} \cdot \sum_{j=1}^{B_V} \Psi_{i,j} \quad \text{or} \quad - \text{ in percentages}$$

$$(5) \quad W_{i,D} [\%] = (W_{i,D} - 1) \cdot 100$$

is the expression showing the variations of the amounts of domestic currency that are to be allocated to purchase the basket of selected foreign currencies. Index D is used to mark the *d*omestic currency, being *d*inar in this case.

A greater amount one should pay for a unit or the basket of foreign currencies on certain day or during certain period indicates the fall of the real value of the basic (domestic) currency exchange rate, and vice versa. This way, current exchange rates lists provide the data necessary to estimate the basic currency “real value” as its relative value in relation to the basket of selected other (foreign) currencies. Figure 2 illustrates the fluctuations of the normalized values of nominal exchange rates for the basket with 11 selected foreign currencies, their daily average value (calculated as their mean), and estimated (as inverse) real value of the domestic currency (dinar).

Figure 2: Normalized values of selected foreign currencies exchange rates, their daily average (mean) value (presented with black line), and the domestic currency real value (presented with inverse - light green line)



Estimation of Selected Other (Foreign) Currencies Real Values

Relying upon pre-defined “real value” of the basic currency (5) it is possible to set up the relationship:

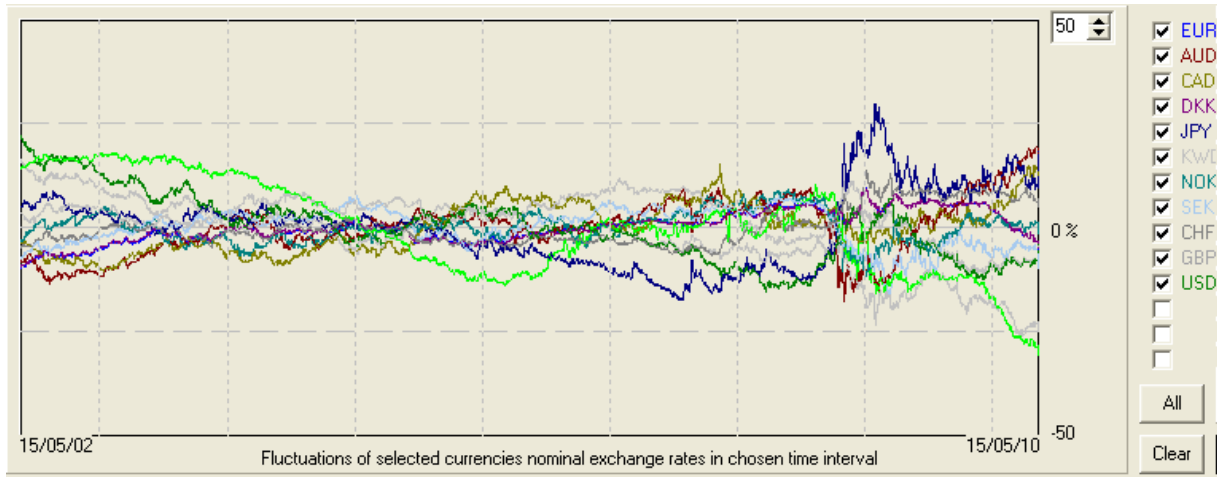
$$(6) \quad W_{i,j} = \Psi_{i,j} - W_{i,D}, \quad \text{and} \quad - \text{ in percentages}$$

$$(7) \quad W_{i,j} [\%] = (\Psi_{i,j} - W_{i,D}) \cdot 100 \quad \text{or}$$

$$(8) \quad W_{i,j} [\%] = \Psi_{i,j} [\%] - W_{i,D} [\%].$$

The normalized values of other i.e. foreign currencies exchange rates are thus adjusted for previously determined variation of the basic i.e. domestic currency value and relativized position of these foreign currencies is eliminated. Such new situation, with “real value” of previously observed data (from Figures 1 and 2), can be seen in Figure 3. This diagram presents estimated “real value” of all selected foreign currencies, adjusted for previously determined oscillations of the domestic currency value, displayed on the same chart by the light green line. It is now possible to observe quite clearly the relationships among the foreign currencies as well as towards the domestic one. Thus obtained “real value” of chosen foreign currencies is the basis for all further analyses.

Figure 3: Estimated real value of the domestic and selected foreign currencies May 15, 2002 – May 15, 2010



Estimation of the Rate of Change and Standard Deviation from the Trend

The rate or tempo of change of the observed currencies “real values” can be simply expressed using the linear approximation of currency values (8). The quotient of the direction of the linear trend approximation is:

$$(9) \quad k_j = \frac{\sum_{i=\frac{1}{2}(A+B+1)}^B W_{i,j} - \sum_{i=A}^{\frac{1}{2}(A+B-1)} W_{i,j}}{\frac{1}{4}(B-A+1)^2}, \text{ and the amount of change in the observed interval from A to B is}$$

$$(10) \quad T_j = k_j \cdot (B-A+1) = \frac{\sum_{i=\frac{1}{2}(A+B+1)}^B W_{i,j} - \sum_{i=A}^{\frac{1}{2}(A+B-1)} W_{i,j}}{\frac{1}{4}(B-A+1)}, \text{ or – in percentages}$$

$$(11) \quad T_j[\%] = (T_j - 1) \cdot 100.$$

The trend or change in certain time interval e.g. of one year is the relation between the two intervals:

$$(12) \quad Tg_j = \frac{365}{B-A+1} \cdot T_j, \text{ or – in percentages}$$

$$(13) \quad Tg_j[\%] = (Tg_j - 1) \cdot 100.$$

To see the deviations of the real values of the observed currencies exchange rates from their linear trend approximation, one has to find the differences between the actual value $W_{i,j}$ and the approximation value $\omega_{i,j}$:

$$(14) \quad \Delta W_{i,j} = W_{i,j} - \omega_{i,j},$$

so that the deviation or dispersion measured by the standard deviation can be expressed through the relationship:

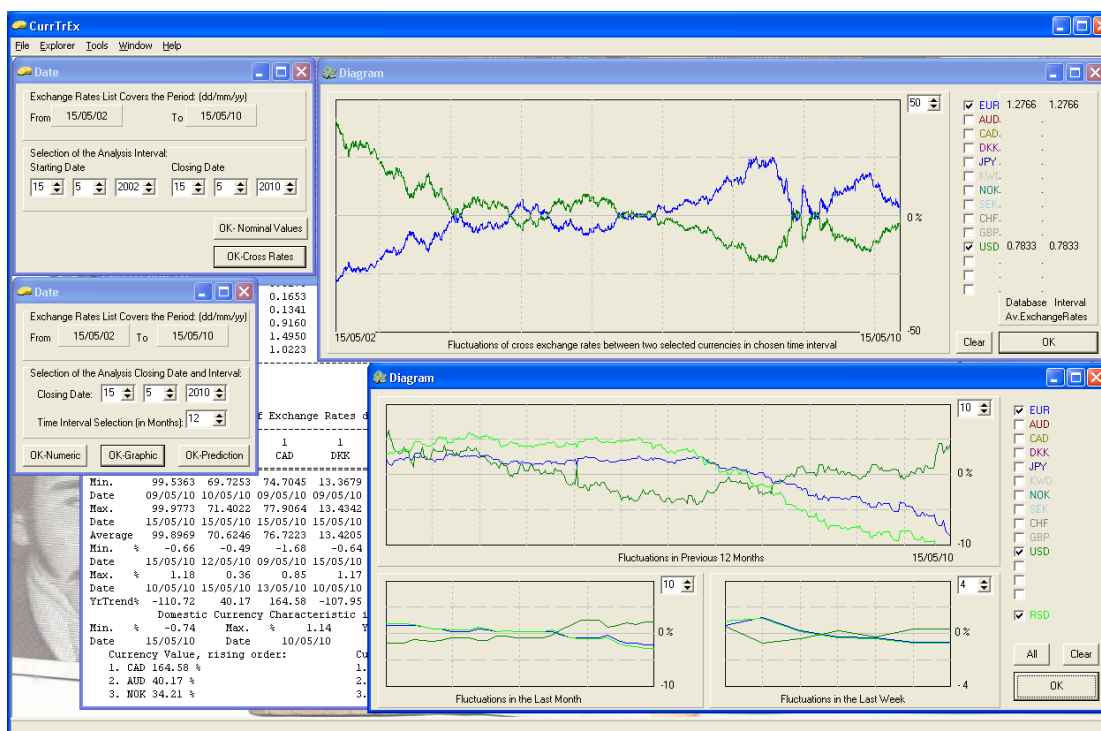
$$(15) \quad \sigma_j = \frac{1}{B-A+1} \sqrt{\sum_{i=A}^B \Delta W_{i,j}^2}.$$

The smaller the dispersion values in terms of the standard deviation for a currency (including domestic one) in the observed period, the more confidence we can have in the forecast of its movement in the next period.

SOFTWARE APPLICATION CurrTrEx

New software application **CurrTrEx** [5] pretends to be the real **Current Currency Trends Explorer**. It is based on the presented concept. In order to make it available, acceptable, user-friendly, and useful for large, possibly global audience, it is made adaptable to various currency systems, adjusted for various needs of its users and simplified in terms of its interface; downloading or entering and (daily or periodical) updating source data; structuring, presentation and interpreting generated information. It supports two types of analysis within Explorer section of its main menu, presented in Figure 4. Static analysis in Data submenu section (in the upper left corner of Figure 4) provides an insight into the fluctuations of selected currencies nominal values at the specified period by means of diagram (as seen in Figure 1) and cross exchange rates of selected pairs of currencies (such as EUR and USD, in the diagram in the upper right corner of Figure 4). Dynamic analysis in Trend submenu section (in the left part of Figure 4) offers highly informative derivative data (supported by appropriate data files) in form of ♦ numeric (partly presented in lower left part of Figure 4 and in its shortened and modified version in Figure 5), ♦ graphic (with selected currencies fluctuations in various recent intervals, as in the lower right part of Fig. 4), and ♦ prediction output – offering additional numerical (as shown in Figure 6) and graphical (as shown in Figure 7) information basis to explore (evaluate recent past and estimate near future) current currency trends by CurrTrEx.

Figure 4: Some of the main features of software application CurrTrEx – two submenus and three reports



Extensive numeric 9-months trend report produced by CurrTrEx on May 9, 2010 is presented in Figure 5, for illustration purposes, in a shortened and modified version, omitting certain numerical parts and rows with information on five out of 11 foreign currencies. It contains exchange rates of all observed currencies (expressed in dinar – RSD, as basic currency) for three weeks preceding the report date, cross exchange rates on the report date and its averages as well as the characteristics of exchange rates (minimum and maximum absolute values in the interval, their dates, the average value in the interval, percentages of minimum and maximum deviation from that average, their dates, that interval's trend converted into annual trend and expressed in percentages, and triplets of three currencies with fastest rising and falling trend in the observed interval) for the last week, last month and (according to the analysis interval selected) for past three, six, (in this case) nine or twelve months.

Figure 5: Shortened Version of Numeric 9-Months Trend Report Produced by CurrTrEx on 09/05/10

Exchange Rates in Past Three Weeks (21 Days):

Unit(s)	1	1	1	1	100	1	1	1	1	1	1
Date	EUR	AUD	CAD	DKK	JPY	KWD	NOK	SEK	CHF	GBP	USD
19/04/10	99.1983	67.6383	72.5505	13.3263	80.0891	255.9956	12.4444	10.2077	69.2049	112.3042	73.6822
...	(20/04/10-08/05/10)	...									
09/05/10	99.5363	69.7766	74.7045	13.3679	85.3583	270.6262	12.5847	10.1052	70.5031	115.3509	78.4987

Cross Currency Exchange Rates on Day: 09/05/10

	EUR	AUD	CAD	DKK	JPY	KWD	NOK	SEK	CHF	GBP	USD
EUR	1.0000	1.4265	1.3324	7.4459	116.6100	0.3678	7.9093	9.8500	1.4118	0.8629	1.2680
AUD	0.7010	1.0000	0.9340	5.2197	81.7455	0.2578	5.5446	6.9050	0.9897	0.6049	0.8889
JPY	0.0086	0.0122	0.0114	0.0639	1.0000	0.0032	0.0678	0.0845	0.0121	0.0074	0.0109
CHF	0.7083	1.0104	0.9438	5.2741	82.5967	0.2605	5.6023	6.9769	1.0000	0.6112	0.8981
GBP	1.1589	1.6531	1.5441	8.6289	135.1373	0.4262	9.1660	11.4150	1.6361	1.0000	1.4695
USD	0.7886	1.1250	1.0508	5.8722	91.9638	0.2901	6.2376	7.7681	1.1134	0.6805	1.0000

Characteristics of Exchange Rates during the Last Week:

Date	EUR	AUD	CAD	DKK	JPY	KWD	NOK	SEK	CHF	GBP	USD
Min.	99.1480	69.3294	74.1016	13.3139	79.1601	259.4571	12.5847	10.1052	69.1717	114.5425	74.9647
Date	04/05/10	04/05/10	04/05/10	05/05/10	04/05/10	03/05/10	09/05/10	09/05/10	03/05/10	04/05/10	03/05/10
Max.	99.5363	70.0840	75.0824	13.3679	85.3583	270.6262	12.7262	10.3302	70.5031	117.0130	78.4987
Date	09/05/10	06/05/10	06/05/10	09/05/10	09/05/10	09/05/10	06/05/10	04/05/10	09/05/10	06/05/10	09/05/10
Aver.	99.3683	69.7207	74.6472	13.3456	82.6119	266.2038	12.6359	10.2137	69.7595	115.4800	77.0929
Min.%	-0.45	-0.54	-0.54	-0.45	-3.15	-1.71	-1.02	-1.68	-1.09	-0.73	-1.93
Date	09/05/10	09/05/10	09/05/10	09/05/10	04/05/10	03/05/10	09/05/10	09/05/10	06/05/10	09/05/10	03/05/10
Max.%	0.81	0.80	0.85	0.84	2.71	1.04	1.07	2.17	0.45	0.99	1.21
Date	04/05/10	03/05/10	03/05/10	04/05/10	09/05/10	09/05/10	04/05/10	04/05/10	09/05/10	06/05/10	09/05/10
YrTr.%	-91.58	-92.28	-91.01	-91.95	481.33	202.75	-174.92	-315.77	48.67	-102.78	227.54

Domestic Currency Characteristics in the last Week: Min.% -0.62 Max.% 1.03 YrTrend% -122.76
Date 09/05/10 Date 04/05/10

Currency Value, rising order:

Currency Value, falling order:

1. JPY 481.3% 2. USD 227.54% 3. KWD 202.75% 1. SEK -315.77% 2. NOK -174.92% 3. GBP -102.78%

Cross Currency Exchange Rates, average of the Last Week:

EUR	1.0000	1.4252	1.3312	7.4458	120.2833	0.3733	7.8640	9.7289	1.4244	0.8605	1.2889
...	(AUD-GBP)	...									
USD	0.7758	1.1057	1.0328	5.7766	93.3194	0.2896	6.1011	7.5480	1.1051	0.6676	1.0000

Characteristics of Exchange Rates during the Last Month: (Min, Max, Aver, Min%, Max%, YrTr.%)
Domestic Currency Characteristics in the last Month: Min.% -1.79 Max.% 1.14 YrTrend% -29.09
Date 09/05/10 Date 15/04/10

Currency Value, rising order:

Currency Value, falling order:

1. USD 39.44% 2. KWD 30.94% 3. JPY 24.68% 1. EUR -30.94% 2. DKK -30.91% 3. SEK -26.84%

Cross Currency Exchange Rates, average of the Last Month:

EUR	1.0000	1.4406	1.3419	7.4449	123.8938	0.3833	7.9077	9.6759	1.4326	0.8694	1.3278
...	(AUD-GBP)	...									
USD	0.7531	1.0849	1.0106	5.6069	93.3070	0.2887	5.9555	7.2871	1.0789	0.6547	1.0000

Characteristics of Exchange Rates during last 9 Months: (Min, Max, Aver, Min%, Max%, YrTr.%)
Domestic Currency Characteristics in 9 Months: Min.% -9.87 Max.% 6.42 YrTrend% -26.12
Date 09/05/10 Date 26/10/09

Currency Value, rising order:

Currency Value, falling order:

1. CAD 14.76% 2. AUD 11.66% 3. USD 5.47% 1. DKK -12.89% 2. EUR -12.89% 3. GBP -9.01%

Cross Currency Exchange Rates, 9-Months average:

EUR	1.0000	1.5757	1.4844	7.4448	128.9777	0.4067	8.2683	10.0894	1.4832	0.8897	1.4155
...	(AUD-GBP)	...									
USD	0.7064	1.1131	1.0486	5.2594	91.1160	0.2873	5.8411	7.1276	1.0478	0.6285	1.0000

Exchange Rate of the Domestic Currency on Date: 09/05/10

Type of	Average 9-Month	Estimation of Fluctuations of the Exchange Rates in the Last
Currency	# Exchange Rate	week month 9-Month Period
EUR	1 96.3433	-91.58 -30.94 -12.89
AUD	1 61.1444	-92.28 8.20 11.66
JPY	100 74.6977	481.33 24.68 2.89
CHF	1 64.9585	48.67 -22.31 -2.47
GBP	1 108.2907	-102.78 5.19 -9.01
USD	1 68.0615	227.54 39.44 5.47
RSD		-122.76 -29.09 -26.12

Specification of Exchange Rates Fluctuations

AUD indicated high	rise(11.66)with decreasing trends of rise ,in the last week high fall
USD indicated middle	rise(5.47)with acceleration of rising trends,in the last week high rise
JPY indicated small	rise(2.89)with acceleration of rising trends,in the last week high rise
CHF indicated small	fall(-2.47)with acceleration of falling trend,in the last week high rise
EUR indicated high	fall(-12.89)with acceleration of falling trend,in the last week high fall
GBP indicated high	fall(-9.01)with changing direction of trend ,in the last week high fall
RSD indicated high	fall(-26.12)with acceleration of falling trend,in the last week high fall

EXPLORING RECENT AND CURRENT TRENDS IN THE FUNCTION OF SHORT-TERM EXCHANGE RATE FORECAST

Beside average exchange rates for the selected interval, (very useful) summary table at the end of this numeric report resumes the most important figures from it. Relative numbers are usually more informative than absolute ones. Therefore, either falling or rising currency trends in the last week, last month and selected interval, are converted into the appropriate annual trend for the purpose of their comparison. One may note that the falling trend of EUR in past nine months of 12.89% has increased to 30.94% in the last month and accelerated in the last week so much that if the last week's trend continued, EUR would lose 91.58% of its value in a year. This kind of information cannot be acquired by viewing small daily changes of its absolute nominal value. On the opposite, a slower rise of USD in nine months period of 5.47% on annual level turned into even faster rise of 39.44% in the last month. With 2.5 times faster tempo of (opposite) change in comparison to the EUR fall in the last week, USD accelerated so much that if the last week's trend continued, it would be worth 227.54% more in a year from now, but the absolute champion is Japanese yen – if this trend continued, its value would be almost five times higher.

In addition to these derivative quantitative information, the application offers (what is rare) descriptive, (for the sake of comparison) standardized specification of exchange rates trends in the selected interval, in the last month, and in the last week. A middle rise of USD, with the acceleration of the rising trend, was confirmed with high rise in the last week. Relatively high fall of EUR in nine months time, with the acceleration of this falling trend in the last month, ended with a high fall in the last week. After high rise in past nine months and decreased trend of rise during last month, AUD had a high fall last week, too. Ever-increasing trend of JPY started with a small rise within nine months, accelerating last month and becoming (extremely) high last week. CHF had small fall within nine months, accelerating last month, but its trend changed direction last week, experiencing high rise in its value. An instable trend of GBP changed direction twice – from a high fall to a small rise and then a high fall again in the last week. Finally, the domestic currency – RSD had an ever-decreasing trend, losing its value.

The more narrow (and recent) the observed interval, the more stable should be the estimated currency trend and the smaller should be deviations of actual from estimated linear trend approximation values. Therefore, numeric trend analysis and prediction report is produced on May 15, 2010 for one, twelve and six months, instead of nine, although it can be done for three months, as well. The currencies are ranged by their standard deviations. Although the trend of small fall of CHF in 12 months (by 1.35%) is confirmed within six months (by 2.72%) and in the last month (by 1.17%), with smaller dispersion than other currencies (0.77%, 0.66% and 0.38%), an analyst should bear in mind more narrow period, as well, because CHF trend changed its direction in the week preceding May 9, as we have already seen. Ever-decreasing standard deviation for more narrow time interval, confirming its falling trend, is the characteristic of EUR, too. High variations of JPY make predictions for it less reliable. The reliability of the forecast based on the evaluation of recent trends is higher for the shorter period and currencies with smaller standard deviation, especially if the same trend already identified in the longer period is confirmed.

Figure 6: Numeric trend analysis and prediction report for 1, 6 and 12 months produced on 15/05/10

Currency	StDev%	12-MonthsTrend%	Currency	StDev%	6-MonthsTrend%	Currency	StDev%	MonthlyTrend%
CHF	0.77	-1.35	EUR	0.53	-9.39	CHF	0.38	-1.17
AUD	1.19	13.62	DKK	0.53	-9.40	DKK	0.39	-3.28
EUR	1.48	-8.32	NOK	0.64	-1.44	EUR	0.39	-3.27
DKK	1.49	-8.27	CHF	0.66	-2.72	AUD	0.46	0.04
NOK	1.57	5.09	KWD	0.80	3.79	NOK	0.56	-1.62
GBP	1.68	-10.11	CAD	0.87	11.25	KWD	0.57	3.97
JPY	1.81	3.24	USD	0.94	5.22	GBP	0.57	-0.91
KWD	1.82	-2.33	AUD	1.04	6.98	USD	0.63	4.67
SEK	1.88	1.38	SEK	1.23	2.13	CAD	0.73	0.62
CAD	2.05	9.10	GBP	1.46	-7.53	SEK	0.87	-3.73
USD	2.18	-2.05	JPY	1.86	1.12	JPY	1.38	4.68
RSD	2.49	-17.74	RSD	0.95	-15.40	RSD	0.49	-4.06

CONCLUSION

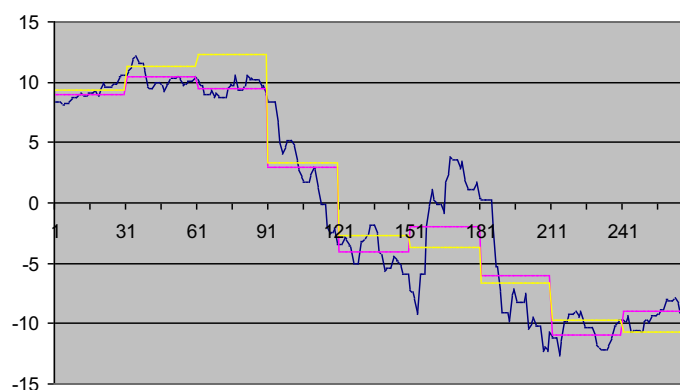
Diagrams with trends of USD fluctuations shown in Figure 7 confirm the figures about its constant fall until the change of trend direction in November and rise since December last year, accelerating in May this year.

Figure 7: Graphical annual and monthly trend analysis report for USD produced by CurrTrEx on 15/05/10



The application results are confirmed by comparing with the statistics NBS does on monthly level [6] (Figure 8) and it can be efficiently implemented in short term forecasting and foreign exchange risk management.

Figure 8: Comparing dinar real value by CurrTrEx and NBS statistics for period July 2008 - March 2009



■ - CurrTrEx, dinar daily values ■ - CurrTrEx, monthly average values ■ - NBS, real effective dinar values

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TRANSPORT AND UTILITIES INFRASTRUCTURE IMPROVEMENT AS THE PREREQUISITE OF FOREIGN TOURIST PRODUCTS DEVELOPMENT

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ABSTRACT

This paper presents a segment of national tourism marketing strategy (oriented towards efficient and effective change of previous and building new tourist image of the country) based on: primary (surveys) and secondary research data; values chain and value for money and effort estimations of present tourist value system; SWOT analysis of actual conditions of air, river, railway, and road transport (including public transport and taxi services, road information, and system of tourist signalization), telecommunications and utilities infrastructure; as limiting factors with strong impact on: using geo-strategic position and Pan-European corridors, development of foreign tourist products, better accessibility, and full valorization of the tourist offer of the Republic of Serbia.

INTRODUCTION

The Republic of Serbia has a number of comparative advantages in tourism. It is relatively near emitting traditional and new tourist markets and has significant geo-strategic and intraregional position as well as a great number of tourist values and attractions. They have diversified structure but very dispersed territorial distribution. In order to make the best use of them, this country has to pay a greater attention, make much more efforts, and invest considerably more material resources in further improvement and development of traffic on its territory.

The market positioning of Serbia as a tourist destination and the appropriate level of commercialization of all its tourist products on the international tourist market are (unfortunately) in negative terms affected by their accessibility. It is still unsatisfactory from the viewpoint of fast, safe, and comfortable reaching the country and its natural and / or artificial tourist attractions. The UN World Tourism Organization has defined eight key factors any new tourist destination should meet to enter the world tourist map and one of them is the development of all modes of transport. An increased competitiveness of domestic tourist offer can be achieved most rapidly in those local areas where basic tourist products are already available, but only if they can be reached quickly and easily.

Given that nearly half of foreign tourists, especially from distant emitting tourist markets, come to this country by plane, importance of air transport facilities for its tourism and overall economic prosperity is obvious. On the opposite, negligible number (or only about 1%) of (polled foreign hotel) guests coming by river indicates almost completely unused potential of this kind of traffic as well as of lake and nautical tourism. However, the worst situation is with inland (public and private) transport of passengers, being of vital importance and the only way to reach most local tourist destinations. In addition to railway and road (interurban and urban) infrastructure, network and facilities, it includes all complementary services, traffic information and tourist signalization. Low quality of complete transport infrastructure is a limiting factor of development of all components of tourist offer portfolio of Serbia as well as of its whole economy, and investing in it must have priority in national plans [1, 2].

Telecommunications and public utilities infrastructure have not followed rapid progress of technology, population growth and increased construction of tourist and other facilities in all parts of the country. It has a bad impact on the image of such local destinations, becoming a “bottleneck” for the further development of tourism.

Tourists’ experiences, preferred transport mode and identification of inconveniences and difficulties they had due to transport and utilities infrastructure, as well as assessing their impact on the level of competitiveness

of Serbia as tourist country and ranking the significance of observed problems should point out the importance of this infrastructure for tourism and the necessity of its improvement. These are the starting points for 1) the partial estimation of tourist value system from the viewpoint of transport and utilities infrastructure, and 2) their SWOT analysis in respect to tourism, as the basis for new national strategy of tourism, transport, and utilities sectors.

THE RESULTS OF THE SURVEYS AND DESK RESEARCH

Exit surveys conducted at key border crossings on the way out of Serbia have shown that typical tourists make only a fifth of the visits, and the rest are business, transit and other visitors. As much as four fifths of them visit Belgrade (being the capital) and Novi Sad (as the second largest city in the country), while they visit other numerous tourist destinations only in minor percentages. It is symptomatic that most of these tourists would warn potential passengers to this country to the traffic, bad roads and drivers, as well as the lack of tourist information, dirt and untidiness. The respondents gave medium ratings for ease of coming to and traveling within the country.

The statistics of the emitting tourist markets (most important for Serbia in respect to the share of foreign tourists coming from these countries) indicate that the majority of these tourists go on vacations by car (39% of French, 54% of Germans, 65% of Austrians, and even 71% of Italians). Only 4–10% of them choose to travel by train or by bus. However, 80% of British and 95% of Russian tourists (quite understandably) go on holiday by plane, while this percentage is lower in France (33%), Germany (8%), Austria and Italy (about 10%). [3] One may contrast these figures to 48% of polled foreign hotel guests coming by air and 51% by land - more than 30% by car, about 11% by bus, and less than 10% by train. As one of the main reasons why they wanted but still failed to realize some activities during their stay in Serbia, they stated poor transport connectivity. Things they liked at least were transportation infrastructure and crowded roads. After transport and accommodation facilities, the third factor of their dissatisfaction was the pollution, as well as the lack of hygiene on the streets and in other places.

In another recent survey, local stakeholders interested in tourism rated the factors of competitiveness of Serbia as a tourist destination on the average 3.1 (on the scale from 1 for bad to 6 for outstanding). Almost all the factors rated below the mean were in connection with transport (nautical tourism - 1.7, tourist signalization - 2.4, accessibility and transport - 2.8) and utility infrastructure (2.9). Similar analysis of the competitiveness of tourist products of Serbia in respect to key success factors showed (on a scale from 1 to 5) the following poor ratings of: the regulation of traffic in residential areas, public transportation, complementary services, tourist signalization, and information in foreign languages – at 1; accessibility within the country and the arrangement of public areas – at 2; parking, road signalization, and signs in urban areas – at 3; and accessibility from other countries – at 4.

PARTIAL ESTIMATION OF TOURIST VALUE SYSTEM

In accordance with the modified international methodology of preparing national strategies for tourism development and tourism master plans, for the purpose of making judgments on the value system of the present level of tourism in Serbia (as the initial basis for determining its competitiveness and level of organization), one should start from two points. 1) The assessment of tourist values chain looks at the positive and negative aspects of various activities carried by tourists, as well as tourist products and services with which they face during the (preparation,) travel and stay in the tourist destination. 2) Value for Money and Effort Formula means grading the level of values and / or benefits a potential tourist gets for (and in relation to) the money and effort invested to arrive, stay, and travel across the country. It indicates the need to eliminate or at least reduce the inconvenience to tourists by (moderately rated) access by air, by road, and parking; and (worst perceived): public transport and signalization in urban areas; signalization of accommodation facilities, attractions and itineraries; urban hygiene; (availability, equipment, and cleaning of) public toilets; and (the existence of) wild dumps (to be moved away).

In the evaluation of traffic and utilities as the tourist experiences in the values chain, one has to take into consideration public transportation, accessibility, mobility, parking, and the system of signalization, as well as telecommunications, utilities, and other public services. It leads to the following alarming conclusions regarding:

◆ Road Transport

- The country has a relatively efficient and well-organized public interurban and (in major towns) urban transport system, but vehicles are rather amortized and public transportation does not meet international quality standards.

- In all major cities, there are many taxi drivers, but their car park is already old and worn-out. There are also taxi drivers working without permission and their (lower) prices bring confusion into the prices of taxi associations.
- In the cities there are several rent-a-car companies, but with the limited number of vehicles per each category.
- Despite two verified Pan-European traffic corridors – VII (along the river Danube) and X (Salzburg-Villach-Ljubljana-Zagreb-Belgrade-Skopje-Thessaloniki), and the approved funds for construction by the European Commission, there are not enough highways yet. There is only one – Shid-Belgrade-Nish, in length of 374 km, with some branches to the border with Hungary. Regional and especially local roads are in poor condition, too.
- Traffic is carried out without major delays and traffic jams, except for the Corridor X, and the exit from and the entrance to Belgrade. Although charged, parking is not well organized and there are not enough parking places.

◆ Signalization

- In urban settlements, the names of principal, but not of all side streets are posted. There are not enough signs and directions for easier orientation. They are often only in Serbian, not cleaned nor maintained. In spite of the consistent system of road signalization, it really lacks such system for tourist attractions, products and services.

◆ Railways

- Only the third of railway network is electrified and railway facilities are quite old, which (along with amortized trains, having also bad interior) causes low average speed and insufficient level of security and capacities usage.
- The prices of public transport are convenient, but railways are not competitive with bus transport and, except at the stations, it is difficult to find the necessary information about the timetables and prices of public transport.

◆ Air Traffic

- Belgrade airport is well connected with most of the world, but there is not sufficient number of connections (daily and weekly) and just recently the access has been allowed to (still small number of) low-cost air carriers.
- (Already partly) renewed (but without enough passengers and cargo transport capacities yet) airport at Nish is an alternative to Belgrade and Sofia airports and very attractive to low-cost carriers due to its excellent regional and interposition among the two mentioned and Prishtina airport, as well as significantly lower operating costs.
- There are 17 military and sports airports with paved runways (although there remain 44 more without paved runways) that could be quickly and with relatively small investments (possibly using the concession method of financing these projects) turned into small tourist airports (suitable primarily for handling the passengers).

◆ River Transport

- Practically no (significant, regular, and constantly organized) public river transport has been established, that would connect Belgrade, Novi Sad and also other smaller towns on the rivers – Danube (being navigable in its entire course through Serbia territory – in length of 587 km), Sava and Danube-Tisa-Danube (irrigation) Canal.

◆ Telecommunications

- A number of accommodation facilities do not offer the possibility of using the Internet, especially in the rooms.
- Telecommunication services do not completely correspond to international standards of quality yet, above all in the coverage and speed of the Internet, and range and quality of services offered by Internet service providers.
- The process of fixed network digitalization and replacement of analog and dual phone numbers is not over yet.
- Owing to the limited capacity of many (mostly old) telephone exchanges and (despite relatively satisfactory optical network between the main exchanges) not enough copper cables (for signal distribution) placed within towns and smaller settlements, there is not sufficient fixed telephone numbers in some parts of the country.
- Introduction of a new operator in the fixed telephony, expected (and announced by the Government for) this year, should cancel the monopoly of the present operator and improve the level of this service along with the reduction in prices, that is (due to the competition of three operators) already achieved in the mobile telephony.

◆ Utilities

- Despite huge investments in this sector, there is a lack of efficient systems of drainage, sewerage and recycling.

- Although basic public services are available in all urban areas, the urbane hygiene and supply of energy are not everywhere on the international level and (especially) in some smaller settlements public lighting is neglected.

SWOT ANALYSIS

SWOT analysis of transport and utilities infrastructure in function of tourism in the Republic of Serbia has pointed out the following internal strengths and weaknesses, and external opportunities and threats regarding:

♦ Road Transport and Signalization

- Strengths: favorable geo-strategic position; involvement in the Corridor X; strong transit role of Serbia; the link between Central and South-Eastern Europe; relatively developed network and high proportion of paved roads.
- Weaknesses: neglecting and lack of roads; outdated vehicle stock; poor regulation of urban traffic and parking; insufficient, inadequate and damaged road and tourist signalization; insufficient influence on overall and more uniform development of individual (particularly underdeveloped, mountainous, and scarcely populated) tourist areas and destinations; lack of highways network and technically uniform national roads connected with them; very poor global condition of pavement; insufficient capacity of roads in urban areas; insufficient investment in (expensive) road construction and maintenance and in national road network development; insufficient traffic safety and comfort; long time needed for highways construction; and payment (toll collection) for their use.
- Opportunities: acceptance of European standards and the interest of foreign capital for infrastructure projects.
- Threats: adverse effects of toll increase; lack of domestic financial resources; loss of shares in tourist and other markets due to lagging behind competition; directing of transit traffic to the routes through other countries.

♦ Railways

- Strengths: favorable geographic and transit position of the country, traversed by the Corridor X; environmentally acceptable and safe mode of large-scale transport of passengers, with small dependence on climatic conditions.
- Weaknesses: dilapidated and inadequate rolling stock, particularly in view of the demand and quality standards; its poor maintenance is a reason for frequent breakdowns, causing delays and turning of users to other modes of transport; inappropriate traveling times, due to lack of investment in modernization of the railway system.
- Opportunities: European standards and the interest of foreign capital for infrastructure projects; restructuring and focusing on market segments and lines where railways can be competitive (with certain cost reduction).
- Threats: lack of domestic financial resources and loss of market shares due to lagging behind competition; lack of substantial investment will reduce the competitive edge of railway transport to the benefit of other modes of transport and, in the international transport, such situation will prove beneficial to foreign railway companies.

♦ Airports

- Strengths: the capacity and image of Belgrade airport; potential of Nish airport and already described airfields.
- Weaknesses: outdated air fleet and other equipment; low coverage of national territory; lack of terminals and basic infrastructure; lack of strong domestic players in the organization of tourist aircraft; inadequate capacities for the accommodation of arriving and departing passengers, in relation to an expected increase in air travel.
- Opportunities: interest of low-cost airlines; small airports and airfields; higher interest of a wider community.
- Threats: high safety anti-terrorism requirements; high airport tax fees, making this mode of travel expensive.

♦ Utilities

- Strengths: relatively good telecommunication and information infrastructure; energy and water self-sufficiency.
- Weaknesses: lack of basic infrastructure; personnel structure and mentality of employees in utilities companies.
- Opportunities: fall in prices of infrastructure equipment; the interest of foreign capital for infrastructure projects.
- Threats: low loyalty of foreign guests because of possible negative experiences with certain public services.

♦ River Transport – Inland Waterways and Ports

- Strengths: two largest cities in the country (Belgrade and Novi Sad) are situated on the route of Pan European corridor VII of the river Danube; less expensive, more economical and environmentally more acceptable mode

- of transport than road transport; traffic can be operated 24 hours a day, 7 days a week, enabling great flexibility of traveling options; no traffic jams; low external costs (e.g. accidents, noise, and poisonous exhaust gases).
- Weaknesses: poor maintenance and outdated river fleet and superstructure; lack of ports and strong domestic players in the organization of river transport; relatively long traveling time; insufficient reliability in view of arriving on time due to underdeveloped navigable waterway network and hydro-meteorological conditions.
 - Opportunities: inland waterways may be used in combination with railway transport as an alternative to the currently dominant road transport; an intensive investment of private capital through PPP and BOT schemes.
 - Threats: insufficiently used capacities; high taxes on vessels, reducing the profitability of this mode of transport.

Having weighted, multiplied and summed all parameters, twice-stronger intensity of the shortcomings was found in relation to the benefits, which leads to the mini-maxi strategy, focused on minimizing weaknesses.

NECESSARY MEASURES AND ACTIONS

Identifying the weaknesses in tourism, transport, and utility sectors of Serbian economy is a prerequisite to take adequate measures and initiate appropriate actions that would eliminate, correct or at least diminish them.

In order to improve the accessibility of all tourist destinations by land modes of transport it is necessary:

- to open and promote alternative (secondary) road routes between the existing ones, with an aim to create (by increasing the number of visits) new tourist areas (especially in the Southeastern and Southwestern Serbia) and make roads network as propulsive as possible (rising the circulation and reducing load and traffic blockings);
- to upgrade the quality of roads, vehicles (including taxi cars) and public transport services (including training their drivers of the courtesy) and links to the surrounding and other European countries and within Serbia, too;
- to use new information technologies in the management and control of traffic through modern control centers;
- to create resting places on the main road routes, equipped with (informative) information panels (with tourist maps and important phone numbers), fixed tables and chairs for a picnic, pay phone, and optional bus stations.

Although it has the same high degree of urgency of necessary action and significance of the impression it makes on foreign tourists (particularly motorized) as the whole road system [4], one could (much easier and with considerably less cost) improve the existing and create a coherent, (in design, colors, materials, dimensions, pictograms, and places of posting) uniform, and organized system of road information and tourist signalization of all kinds – from the promotion i.e. indication of the existence of tourist destinations, attractions and resources, via information about them, pointing and showing direction to them, until the identification that one has reached them. This includes the aforementioned information panels that (in addition to the resting places on the roads) should be placed at the entrances and inside the cities and towns. One ought to use the Latin alphabet and several foreign languages for the inscriptions, and it is possible to have also paid advertising on them, without violating their informative character. Special interest itineraries, various routes and thematic tours (of monasteries, events, UNESCO or the Roman heritage, wine, ethnological, ecological, etc.) might have special thematic logotypes. The signs should facilitate and not hinder tourists' orientation, so damaged ones have to be repaired or replaced.

The adoption and implementation of the new (very rigorous and harmonized with EU legislation) Law on traffic safety, and modern monitoring and control equipment of the traffic police have greatly contributed to an increase of road (particularly passengers) traffic safety and the reduction of the number and severity of traffic accidents on the roads in the Republic of Serbia. It has strong impact on the sense of security of foreign tourists.

In order to improve air traffic and airline links with Serbia (as well as within it), it is surely necessary:

- to enlarge capacities, upgrade the level of services and the links of the airports with the main emitting markets;
- to encourage low-cost and charter flights of large tour operators and low-cost carriers to the mentioned airports;
- to convert smaller airports (such as Ponikve, Ladjevac, Sombor, and Vrshac) into tourist and recreational ones.

The increase of significance of river traffic as a part of the development of nautical and lake tourism, as well as improving the equipment of the riverbanks and tourists activities on the lakes require large investment in:

- river berths, marinas (with bars and restaurants), and platforms for fishing, water sports, and other activities;

- nautical clubs with nautical schools, services for repairing and maintenance of boats, taxi boats for excursions and transportation, renting the equipment for water sports as well as boats / ships with / without the skipper;
- arranged and equipped beaches, parking lots, public transport stops, signalization and utilities infrastructure.

Equally high level of urgency of required action and of the importance of their impression on foreign tourists have utilities and other public services that one can (although heavier and with higher costs) improve by:

- using alternative, renewable and ecological energy sources (such as wind, sun, and the garbage incineration);
- elimination of wild dumps, selective collection (with clear procedures, time schedules and separate containers for different categories – old paper, glass, organic, and other waste) and (modern systems for) recycling waste;
- continuous and regular supply, saving and preserving drinking water as well as adequate sewerage systems, collectors and treatment of waste water in order to re-use it for irrigation of agricultural and green public areas.

Most actions concerning the utilities are the result of proactive approach to environmental protection. Offer and quality of utilities determine life quality and tourist experience, not reflecting in particular in a positive sense, but their absence or low quality have negative impact on the image and positioning of tourist destination.

IMPLICATIONS FOR THE DEVELOPMENT OF KEY TOURIST PRODUCTS FOR FOREIGN GUESTS

Events and city breaks belong to the group of tourist products interesting for Serbia, being in them most attractive and still moderately competitive. Also high degree of attractiveness, but lower level of competitiveness is related to business tourism and MICE (Meetings, Incentive, Conventions & Congresses, Fairs & Exhibitions), Serbia is slightly less attractive and again low to medium competitive in view of special interests and cruising tours. Medium level of attractiveness to foreign tourists and low level of competitiveness are characteristic for other tourist products: nautical, lake, mountain, rural, and health – Spa and Wellness tourism. Regardless of the ranking order of development priorities in the modernization of all modes of transport (especially those used by majority of current and potential tourists) and related utilities and other services, they are of vital importance for the commercialization of foreign tourist products and raising the level of competitiveness and attractiveness [5].

Short city breaks in Belgrade, Novi Sad, Nish, and other small but interesting towns in Serbia are very attractive to domestic and regional markets from which these places are accessible by land (Hungary, Slovakia, Czech Republic, Romania, Bulgaria, Macedonia, Slovenia, Croatia, Montenegro and Bosnia and Herzegovina). Their development is limited by low quality of roads and public transport. In short term, city breaks are the first step towards the development of other tourist products such as events (national - as the Belgrade marathon or the Beer Fest, and international - as Dragachevo festival in Guca, Exit, FEST, BELEF, BEMUS, and BITEF, which require special temporary signalization system at the time of their duration) or cruising tours (their launching requires relatively small infrastructure investments, and they can be part of a regional tour of several countries or organized within the borders of Serbia – for tourists who arrive there by plane, car, bus or train, while most individual tours are associated with the development of) special interest (with mild or rough activities related to the natural or cultural resources). They, as well as mountain, lake, rural, health - Spa and Wellness tourism, are limited in terms of accessibility, what is further enhanced by the poor condition of regional and local roads.

Since the key factor for success of city breaks is accessibility of cities attractive to tourists, in the case of visitors from distant emitting markets, the existence of direct flights from places of departure is necessary. The factor limiting them now to Belgrade and Novi Sad is the predominant orientation to the airport in Belgrade. By increasing the capacity and the importance of Nish airport, as well as the conversion of small airports, Nish and other small, but still very attractive towns in the interior would be activated in function of this tourist product. Due to its high price elasticity, it is important to include direct low-cost airlines. The same goes for importance of accessibility by air for the development of business tourism and MICE, events (needing additional basic infrastructure), special interests, cruising tours (for tourists coming by plane), mountain, health and rural tourism.

Unlike the stationary use of rivers for restaurants–rafts (for which the capital, with unsurpassed location on two rivers, is already widely known), navigation on calm waters (rivers and lakes) include individual owners sailing, charter renting of small and medium-sized boats and ships, and organized river cruises by larger and the most large ships. The most popular river in the world for such cruises is the Danube. Limiting factors of success

of this tourist product are: unsatisfactory existing infrastructure and superstructure; lack of ports, marinas and berths; limited accessibility to them by land; lack of gas stations and other necessary facilities; small number and poor quality of auxiliary services, complementary activities, accommodation and catering facilities; as well as the absence of a unique, integrated system of navigation regulation and signalization. Establishing a nautical system in entire (navigable) flow of the Danube through Serbia, particularly on the section from Novi Sad and Belgrade, via Smederevo, to the Iron Gate (Derdap), includes the construction of large nautical centers next to the cities and small ones – outside of urban areas (with special emphasis on the recreational activities and water sports).

Currently most interesting segment of this product for Serbia is river cruising. It can be networked with city breaks, special interests and wellness activities (through Cruise ship Spas, as Spa centers on river cruising boats, offering professionally managed Spa services, menu and all necessary fitness and wellness programs). Its great long-term market attractiveness and development potential can be initially activated by including local capacities in already commercialized international river cruises. Possibility of including small, mountain river flows in cruising tours, and more and more popular special interests – in the form of mild (such as fishing or river expeditions) and rough activities (such as rafting, canyons research, kayak and canoe rides) is interesting, too.

CONCLUSION

Strategic comparative advantages of the country (in terms of its geographical location, great potential of underground waters and inland waterways, numerous natural, historical and cultural attractions) are insufficiently used above all due to the limited accessibility, lack of highways, functional airports and low-cost airline carriers, as well as low capacity and quality level of neglected transport and utilities infrastructure. Given the great value of necessary investments, the government should use special funds and other financing forms to support urgent improvement of the infrastructure. For soon return effects, it could be started in the existing tourist destinations, but only the highly developed tourist network, including all local values and attractions, will bring full results.

It cannot be realized without previously equally developed transport system. Construction of subway, several new bridges, and the bypass around it are the conditions that Belgrade remains a tourist metropolis of Southeastern Europe. Reconstruction of the Ibar motorway and the segment of Corridor X in Serbia are important in connecting, activating and commercialization of tourist potentials of Southeastern and Southwestern Serbia. Only a modernized railway network can restore the role of mass transport backbone. Restructuring national air carrier, introduction of charter flights, and easier access for low-cost carriers could accelerate commercialization of tourist products of Serbia in the international framework. First of those for which it is possible to do it without delay and with less investment (such as city breaks, events, business tourism and MICE, special interests, tours and river cruises, as part of nautical tourism), and then of those that require larger initial investments (such as nautical, lake, mountain, rural and health - Spa and Wellness tourism). Attention should be paid to valuation of corridor VII and the river Danube that in its most attractive navigable part, through Serbia, integrates a number of tourist attractions and popularize Belgrade as the Danube metropolis (along with Vienna and Budapest).

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THE EFFECTIVENESS OF MICROFINANCE INSTITUTIONS ON SMEs AND ITS IMPACT ON COUNTRY'S ECONOMY

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ABSTRACT

The aim of this paper is to establish the finance structure and effectiveness of the microfinance institutions, the reliability of their funds and the economic implications of micro finance in Swaziland. The effectiveness of micro finance institutions was determined through its contribution to the success of SMEs in Swaziland. The study reveals that the micro finance is fairly new in Swaziland and it only realized the growth in the late 1990's seeing the introduction of four more micro finance institutions. This growth has enhanced the growth of SMEs in the country through providing them loans for starting businesses and those for sustaining and expanding their businesses. The study also reveals that micro finance institutions in Swaziland have been operating for the past 15 years with some mixed results. While some of them have reached sustainability, others are no longer in operation. The study provides useful information on micro finance institutions towards on SMEs with an emphasis on Swaziland.

INTRODUCTION

Finance is the key factor for every business entity. All ideas that are conceived, for it to be an operating business, finance is needed. At start up, it is needed to set up the business, even during its growth stage funds are needed to finance its operating activities. Thus, the scarcity of funds is a major obstacle that hinders many entrepreneurs from realizing their dreams of setting up their own businesses. It has been realized that, even though entrepreneurs can come up with good business ideas and have an articulate vision of how they can be self-employed, all that becomes futile if they do not have the capital required to venture into business. It is of great concern if entrepreneurs cannot operate their businesses as they desire due to lack of finance because they contribute enormously to the economic growth of most developing countries. The concept of micro finance originated in Bangladesh in 1976 through a pioneering experiment by a Professor of Economics Dr Muhammad Yunus. The primary differentiator between micro finance and the conventional credit disbursal mechanism lies in the joint liability concept. In Swaziland, several formal micro finance institutions have been created in response to the social and economic challenges facing the Small and Medium Enterprise (SME) sector. The micro finance sector in Swaziland has an important role to play with respect to broad economic development and the support for the SME development. In conjunction with the micro finance institutions in Swaziland, Private Sector Support Program has been established. The objective of Private Sector Support Program is to strengthen the operations of micro finance institutions to enable them to provide appropriate quality products to the SME sector and to attract funding. However, outreach and penetration of Small and Medium Enterprise Development (SMED) services provision seem to be very low as many micro entrepreneurs lack knowledge of accessibility to finance. This situation raises questions about the effectiveness of SMED assistance providers whose is to disseminate such information and support. Since Swaziland is classified under countries living in poverty, the citizens of the country need access to a diverse range of financial services, including loans, savings services and insurance. Access to financial services will enable them to increase income and smooth consumption flows, thus expanding their asset base and reducing their vulnerability to the external shocks that plague their daily existence.

The micro finance sector in Swaziland is still at its infancy, as a result there is not enough documentation about it, and thus it makes it difficult for people to know more about micro finance. Entrepreneurs come across a number of limitations and difficulties in acquiring finances. With the number financial institutions, together with business support agencies it is expected that they meet the financial needs of the SME sector. However, SMEs still find themselves in need of capital yet there are readily available funds. Some of the financial institutions prefer funding already established businesses; this is a constraint for the newly established SMEs as they do not meet the requirements for the providers of funds. In the process most of them fail before they can be recognized, due to lack of education on conducting businesses. Sometimes financial institutions give out money below the requested amount; this causes problems for the SMEs because they have to struggle with raising the balance of the required amount and the repayment of the loan. The study will cover micro finance institutions and SMEs in Swaziland. The study will analyse and evaluate the effectiveness of micro finance towards SMEs. Also to find out if the micro finance system established in the various parts of the country are enough to have an impact on the country's economy and to alleviate and eventually eradicate poverty in Swaziland. In addition, the paper will pose some important empirical questions: Is micro finance easily accessible? Do the recipients of micro finance uphold to the terms and agreements of the contract? Are the micro finance institutions efficient? What impact does micro finance have to the Swazi economy as whole? What are the problems faced by micro finance institutions? Where do the micro finance institutions see themselves in the next five to 10 years?

The remainder of the paper is organised as follows: the first section provides a brief literature review on the subject matter. The second section describes the research methodology. The third section discusses the results of the analysis. Finally, the last section summaries the findings and provides concluding remarks with some recommendations.

LITERATURE REVIEW

Micro Finance

To start a new business, most entrepreneurs begin with an idea, create a viable business plan and raise finance capital. After creating the business plan, raising start-up money is important in starting a new business. Micro finance institutions are available to assist entrepreneurs. According to Robinson (2001), microfinance refers to the small-scale financial services- primarily credit and savings provided to people who farm or fish or herd, who operate small enterprises or micro enterprises where goods are produced, recycled, repaired or sold; who work for wages or commissions, who gain income from renting out small amounts of land, vehicles, draft animals or machinery and tools and to the other individuals and groups at the local levels of developing countries both rural and urban. Ledgerwood (1999) defines microfinance as the provision of financial services to low income clients including self employed. Financial services generally include savings and credit; however some microfinance organisations provide insurance and payment services. In addition to financial intermediation, many micro finance institutions provide social intermediation services such as group formation development of self confidence and training in financial literacy and management capabilities among members of a group.

Micro finance often includes both financial intermediation and social intermediation. It is simply not banking but a development tool. The activities of micro finance involve small loans typically for working capital, informal appraisal of borrowers and investments, collateral substitutes such as group guarantees or compulsory savings. Access to repeat and larger loan based on repayment performance stream lined loan disbursements and monitoring and secure saving products. Some micro finance institutions provide enterprise development services, such as training and health care. Micro finance institutions can be NGOs, savings and loan cooperatives, credit unions, government banks or non bank financial institutions. Khadker (1998) says providing the poor with access to financial services is one of many ways to increase their income and productivity. In many countries however traditional financial institutions have failed to provide this service. Micro credit and cooperative programs have been developed to fill this gap. Their purpose is to help the poor become self employed and thus escape poverty. Many of these programs provide credit using social mechanisms such as group bases lending, to reach the poor and other clients including women who lack access to formal financial institutions. With increasing assistance from World Bank and other donors, micro finance is emerging as an instrument for reducing poverty and improving the poor's access to financial services in low income countries. Therefore micro finance refers to the loans and savings services provided by micro credit institutions and

programs. Micro finance, according to Ledgerwood (1999), is growing because: the promise of reaching the poor- micro finance activities can support income generation for enterprises operated by low income households; the promise of financial sustainability- microfinance activities can help build financial self sufficient, subsidiary free often locally managed institutions; they provide the same activities in similar ways but with greater flexibility at a more affordable price to micro enterprises and on a more sustainable basis; and the contribution of micro finance to strengthening and expanding existing formal financial institutions such as savings and loan cooperatives, credit union networks, commercial banks and even state run financial institutions by expanding their markets for both savings and credit and potentially their profitability.

Risks in Micro Finance

Ledgerwood (1999) also mentioned the risks that micro finance institutions are likely to be exposed to which are: Some micro finance institutions target a segment of the population a segment of the population that has no access to business opportunities because of lack of markets inputs and demand. Many micro finance institutions never reach their minimal scale or the efficiency necessary to cover costs; Some micro finance institutions fail to manage their funds adequately enough to meet future cash needs and as a result, they confront a liquidity problem; Others neither the financial management nor the skills required to run a successful operation.; Replication of successful models has at times proved difficult, due to differences in social contexts and lack of local adaptation. According to Ledgerwood and Victoria (2006), micro finance institutions may be exposed to Credit Risk, Liquidity Risk, and Internal Rate Risk (results from a potential mismatch in the structure of assets and liabilities). In addition, Ledgerwood and Victoria (2006) stated that micro finance institutions performance critically depends on its ownership and government structure. They do not have real owners with their own capital at risk, and micro finance institutions are also exposed to the risk of portfolio deterioration due to the system failures or management and staff weaknesses or fraudulent behaviour (Operational and Management Risk).

Failure to Repay the Loan

Lenders ensure that any borrower to which they lend funds to will generate sufficient liquid funds to repay the loan within the agreed time. Ideally, when a loan's self-liquidating property is absent, the borrower is normally required to demonstrate his ability to repay from other maturing and/or available cash resources. A loan agreement could turn sour if an entrepreneur could no longer be able to payback. However, a number of reasons have been noted by Wright (1980) as the main cause for failure to repay loans includes: Market for the firm's product or service collapses; Government action curtails or makes illegal the activities of the business; and Technical problems and many more.

Objectives of the study

The objectives of the study are to: Establish the extent to which micro finance has improved the state of SMEs in Swaziland; Establish if the objectives of the micro financiers have been met over the past years and how they plan to improve them in the future; Establish the problems faced by micro lenders and the individuals and or organisations they help; and Establish the economic implications of micro finance in Swaziland

METHODOLOGY

The instruments for collecting data were the questionnaires, semi-structured interviews, and documentary evidence (annual reports of micro finance institutions and other relevant documents). Questionnaires were distributed to the senior managers of micro finance institutions. They were designed to get information about the overall background of the micro finance institutions, their rules and procedures, progress, problems and future plans. The researcher collected data using semi-structured interviews. This was complemented with structured questionnaires for detailed analysis. The semi-structured interviews were conducted with the entrepreneurs of SMEs. The population of the study was made up of micro finance institutions and SMEs in Swaziland. There are total seven registered micro finance institution in Swaziland. Total five (or 70%) micro finance institutions were randomly selected for the study. Researcher then randomly selected 12 SMEs from each micro finance

institution. Total sixty SMEs were selected based on simple random sampling technique from all regions of Swaziland namely: Hhohho region, Manzini region, Shiselweni region, and Lubombo region.

FINDINGS

Micro Finance in Swaziland

Legal and Regulatory Issues

The Central Bank of Swaziland (CBS) regulates the Commercial Banking sector under the Central Bank of Swaziland Order, 1974 and the Financial Institutions consolidation Order, 1975. Through the Building Societies Act 1962, the CBS also supervises the Swaziland Building Society. The Ministry of Agriculture regulates the co-operative sector under the Co-operative Societies Act, 1964. According to finding, micro finance institutions believe that regulation will force them to improve their operations and prevent fraud and other mismanagement. Micro finance institutions also want to be licensed to access credit line from donors more easily. Regulation would force micro finance institutions to adopt some standardised and regular reporting that would be made publicly available. Generally there is a belief that regulation brings respectability and structure into micro finance sector.

Government Participation

In the late nineties, His Majesty allocated E8 million for small and micro entrepreneurs, earmarking half of the monies for enterprising females. In addition to the government initiated scheme started in 1970, the Small Enterprise Development Cooperation (SEDCO) was established in 1970 through the assistance of UNDP and the ILO has contributed to the promotion of small business development in Swaziland. However, Swaziland government operates some schemes to provide financial assistance for local entrepreneurs. These schemes are:

- The Swaziland Finance Development Corporation (FINCORP), formally known as the Enterprise Trust Fund was launched by His Majesty King Mswati III in 1995 with a primary objective of providing access to credit and business development services to local entrepreneurs. FINCORP seem to be meeting the needs of SME in Swaziland. The success of FINCORP has been due to the fact that it is a parastatal organisation and does not require security. As Thabede (1981) pointed out that because most small scale business enterprises did not have enough security to offer for the monies loaned, government should create some independent organisations to assist in the regard of small business development. This would also ensure that public funds are not squandered.
- Small Scale Enterprise Loan Guarantee Scheme: Started in 1990 with a capital of E5 million, it provides 75% guarantee to commercial banks to minimize their financial risk in lending to exporting SMEs.
- Tinkhundla Development Fund: Funds are given as grants for both social and economic projects and are open to formal and informal groups. Each of the 55 constituencies is granted an equal amount of money annually. Traditionally leadership is responsible for assessing and selecting projects to be funded.
- The Regional Development Fund: Each region has been allocated E10 million to be shared amongst the 55 constituencies. Funds are given to groups as grants for business ventures.
- Export Credit Guarantee Scheme: The Swaziland government through the Central Bank of Swaziland operates an Export Credit Guarantee Scheme, which is aimed at promotion the country's export trade.

Micro Finance Sector in Swaziland

In Swaziland, several micro finance institutions have been created in response to the social and economic challenges facing the SME sector and to contribute to the creation of wealth and jobs throughout Swaziland by stimulating in new, existing and emerging entrepreneurs through enterprises promotion and provision of an affordable package of business support services. According to a survey conducted by the European Union's Private Sector Support Programme (PSSP) in 2005, micro finance institutions in Swaziland have been operating for the past ten years with some mixed results. While some of them have reached sustainability, others are no longer in operation. The majority of micro finance institutions are struggling to reach sustainability and need external financial support. However, a list of micro finance institutions in Swaziland includes the following:

1. Imbita Swaziland Women's Finance Trust;

2. Africa Cooperative Action Trust (ACAT);
3. Swaziland Development Finance Corporation (FINCORP);
4. Inhlanyelo Fund- the fund is administered by Swaziland Industrial Development Company (SIDC), Natie Kirsh, Standard Bank and Swaki Group of Companies;
5. Swaziland Association of Savings and Credit Cooperatives Ltd (SASCCO);
6. Swaziland Ecumenical Church Loan Fund (SECLOF) - linked to the Global Ecumenical Church Loan Fund; and
7. Swaziland Microfinance Enterprise (SMFE) - linked to World Vision Swaziland.

Profile on SMEs in Swaziland

A national survey was conducted in 2003 to provide up to date information about the situation and characteristics of SMEs in the country. The findings of the survey show that a majority of enterprises comprise of micro enterprises. This refers to the enterprises that have under fifty thousand emalangeni (E50 000) in assets, between one to three employees and a turnover of up to sixty thousand emalangeni (E60 000). Seventy percent of Swazi enterprises have annual sales below E100 000. According to the survey there are over 70,000 enterprises in the country. This figure is up about 18600 from the 51,400 enterprises reported in the 1991 USAID funded Gemini survey. The 2003 national survey also showed that a majority of enterprises are owned by Swazi nationals, and enterprises are more represented in rural areas. This is to be expected with approximately 70 percent of the population residing in rural areas. Enterprise ownership mainly comprises young and middle aged entrepreneurs between 22 and 45 years.

SME Policy in Swaziland

The launch of the National Policy on the Development of Small and Medium Enterprises took place recently in March 2005. Problems and challenges SMEs face in Swaziland are stated. The national policy also defines what types of business classify as micro, small and medium enterprises. This is a welcome clarification as there was much confusion around the notion of SME. The table below shows the new classification of SMEs.

	Micro	Small	Medium
Value of Assets	Under E50 000	E50 001 to E2 million	E2 million to E5 million
Staff employed	1 to 3 people	4 to 10 people	11 to 50 people
Turnover	Up to E60 000	Up to E3 million	Up to E8 million

[1 South African Rand (R) = 1 Swaziland Emalangeni (E)]

Profile of Micro Finance Institutions

According to the Imbita Swaziland Women's Trust 2005-2007 business plan document, the micro finance industry in Swaziland is largely in its formative or early stages of development. Most micro finance institutions are still very young. Virtually all of them are not yet operationally stable and continue to be heavily reliant on donor funds for survival. Most also lack financial, human, intellectual and physical capacity to increase outreach and are lagging behind in achieving and maintaining high quality portfolios. They mostly operate in urban and semi-urban areas and cater to the entrepreneurial poor functioning in the SME sector, many of who are located in the rural areas. They are characterized by small portfolios and offer a variety of financial services, some of which are more developed than others. Those consist of enterprise lending, savings, house lending, and consumption lending and insurance.

Challenges of developing the Micro Finance Sector

The challenges that hinder the effective development of an SME sector have been prevalent in the sector for a significant period of time. These issues have a direct impact on the development of Micro finance sector and therefore cannot be seen in isolation. Below is a description of some challenges as reported during the micro finance institutions workshop held on 21 July 2005:

Culture of non-repayment – Some believe that there seems to be a conflict in the client as the misunderstand loans for grants or have an expectation that they deserve loans and are not obliged to repay them.

Credit assessment - There is a lack of skills in three related areas namely credit risk assessment, development of credit methodology and knowledge of the relevant economic sectors.

Performance of SMEs - The lack of easily accessible market information has also seen a significant number of businesses being set up without adequate information on the potential and size of the markets. This has resulted in the collapse of many of these businesses.

Debt Recovery- Debt recovery offers a number of challenges to micro finance institutions, e.g., it is expensive and some legal matters issues arise.

Lending Methodologies- The lending methodologies used by some micro finance institutions, in particular group lending was not effective because of the high incidence of infighting within groups, the lack of unity of groups and the high default rate which undermines the group guarantee mechanism.

Staff Training- the cost associated with training and developing skills for staff within micro finance institutions was also identified as a serious challenge.

The Impact of HIV/AIDS- The impact of HIV and AIDS was also reported to be one of the major factors that affected staff in terms of downtime or death, and also affected their clients in terms of loss of productivity in businesses or death.

Findings from five selected Micro Finance Institutions

Finding shows that only two micro finance institutions are financed by international donors. These included Imbita who are financed by EU, Geneva Global, WK Kellogg Foundation, and Swaziland Micro Finance Enterprise who are financed by world Vision and other international donors. Inhlanyelo Fund is funded by commercial banks and local donors. FINCORP is the only micro finance institution funded by government. The year of establishment, reasons for establishment and the missions of five selected micro finance institutions are shown in appendix 1. Study found that 60% of the micro finance institutions started out as NGOs and later transformed into being micro finance institutions. However, micro finance started in 1991, Imbita being amongst one of the first established in Swaziland. There was no growth for micro finance for a period of close to five years. That was until the demand for microfinance escalated and the need for micro finance institutions grew. However that saw the introduction of FINCORP in 1995. This shows that microfinance in Swaziland has been in operation for past fifteen years and growth has only been realized in the past ten years. Finding also shows that, the establishment of the micro finance institutions was to alleviate the problem of limited access to credit for Swazi SMEs due to the fact that most entrepreneurs could not access credit from commercial banks. Moreover the objectives were poverty alleviation, job creation, providing access to credit and to facilitate reliance through soft loans.

Challenges faced by micro finance institutions

Result shows that all the institutions have almost the same challenges. While all five micro finance institutions recorded liquidity constraints because of high demand for loans, three micro finance institutions (60%) complained about copy cat syndrome (duplication of enterprises), business failures and low entrepreneurial culture and spirit. Other challenges the institutions indicated about client relocation, shortage of staff and transportation.

Government assistance

Finding shows that all micro finance institutions believe that government can do better by funding them especially those that only depend on donors. 40% feel that there is a necessity to increase levy on imports and enhance business development service providers capacity in order to stimulate entrepreneurship while 80% feel that there is need for government to provide entrepreneurial training to boost the economy. However, 20% of the selected micro finance institutions also feel that government can encourage micro finance in the communities by avoiding the money grants that government provides to people for free because such free grants create a culture of dependency on the Swazi nations.

Findings from the Entrepreneurs

Total sixty SMEs were contacted for the study. Semi-structured interviews were conducted with all entrepreneurs of SMEs and it was complemented with structured questionnaires. They were asked to give

reasons why they chose micro finance institutions for micro credit to finance their businesses than traditional commercial banking. All respondents said that they were refused to get finance from the bank as they couldn't produce the documents that the traditional commercial banks require. They render micro credit as effective. All the entrepreneurs opted for micro credit because of its accessibility and the affordable interest rates. Furthermore, respondents were asked the following questions:

Is there any market for your product or service?

The aim of the question is to find out if the entrepreneurs will be able to repay the loans. Study found that there is a market for all SMEs. The problem is with new SMEs that copy what the existing businesses deal with. This reduces the revenue that the SMEs make as there will be competition which will lead to products or service being sold at cheaper prices.

Does your financier monitor your business to advise you on areas of weakness?

The aim of the question was to establish whether the monitoring mentioned by the financiers does really happen, or is that they monitor only those clients who have not been sticking to their agreements. Finding shows that the financiers do not know whether the loan has been used as intended as 75% of the entrepreneurs said they had never been visited by their financiers.

How has microfinance improved your standard of living?

The aim of this question was to see the improvement in the entrepreneur's lives after obtaining the credit. Study discovered that those who used micro finance to start new businesses now had income to spend on basic needs which included food and school fees for their children and also to expand and sustain their existing businesses had an improvement on their profits. This resulted in additional labor being required thus increasing job opportunities for the unemployed.

What do you think micro finance should do to improve their services so they can be of more useful to you?

The aim of this question was to establish to find out whether they are happy about the services they receive from the micro finance institution. Only 12% said that they are not satisfied with services provided by the institutions.

Problems associated with the lack of finance

Joubert (2006) argues that in Swaziland, entrepreneurs lack a clear vision of their businesses. She states that the problem is compounded by limited finances and other support structures to cater for their basic needs. She also said that one can point out the fact that there has been a duplication of business ideas. As a result, most of them are engaged in similar activities. They lack one of major components of small business entrepreneurship, creativity. In recent years, SEDCO's services to SMEs have included training and business counseling. Despite these initiatives, SMEs in Swaziland still encounter problems of developing business plans, managing their business and keeping records.

CONCLUSIONS AND RECOMMENDATIONS

Micro finance is fairly new in Swaziland. It dates back to the early 1990's and it only realized growth in the late 1990's seeing the introduction of four more micro finance institutions. This implies a significant growth in micro finance in Swaziland. This growth has enhanced the growth of SMEs in the country through providing them with loans for starting businesses and those for sustaining and expanding their businesses. All the entrepreneurs that the researcher interviewed had experienced significant improvements in their day to day lives, they were struggling before venturing into business but now they are able to afford their basic needs such as food, school fees, that is to mention but a few. However, the study also discovered that the micro finance institutions in Swaziland facing challenges about not meeting the demand for loans due to lack of funding and went to the extent of suggesting that government should include them in its yearly budget since their aim is to empower the Swazi people. This research leads to the conclusion that entrepreneurs are happy about the existence and efficiency of micro finance institutions as micro finance is relatively easily accessible from them than traditional commercial banks though micro finance institutions themselves do encounter problems while in the process of issuing the loans and the fact that they fail to meet the demand of the entrepreneurs because of the liquidity constraint.

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Appendix1.

	INHLANYELO FUND	IMBITA	SMFE	SECLOF	FINCORP
Year of establishment	1999	1991	1998	1997	1995
Reasons for establishment	To finance entrepreneurs who could not be financed by banks	To finance entrepreneurs who could not be financed by banks	To finance entrepreneurs who could not be financed by banks	To finance entrepreneurs who could not be financed by banks	To finance entrepreneurs who could not be financed by banks
Mission	Stimulation of business activity and facilitation of job creation at grass root Swazi communities through the provision of seed capital finance to viable micro enterprise project	To uplift the economic status of the poor	To provide reasonable priced micro credit services to the economically marginalized in a competitive manner with staff that puts customer care first	To offer credit that ensures self sustainable and developed rural and semi-urban communities that include youth, women, senior citizens and the unemployed	To sustainable provide increased access to Swazi entrepreneurs

ATTRIBUTES UTILISED BY KNOWLEDGE WORKERS IN IDENTIFYING EMPLOYERS OF CHOICE: A CROSS-OCCUPATIONAL COMPARISON IN SELECTED ORGANISATIONS IN THE BUFFALO CITY METROPOLIS

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ABSTRACT

Due to competition for scarce skills, attraction and retention of knowledge workers is probably the biggest challenge in human capital management today. From recent studies on employee retention, employers seem to know the importance of knowledge workers yet they still find difficulties in predicting the future needs of these mobile knowledge workers. It is imperative for organisations to have knowledge of these attributes in order to improve the attraction and retention of knowledge workers. This research aims to identify attributes that are utilised by Accountants and IT specialists when identifying employers of choice. Using quantitative research design, self administered questionnaires are going to be distributed to a sample of respondents in the Banking, Automobile, and Retail sector. A purposive sampling procedure is going to be utilised. The data will be subjected to a number of statistical analysis including factors analysis and one way ANOVA. From preliminary findings, studies reveal that knowledge workers place great importance on intrinsic factors when identifying employers of choice. However, extrinsic factors are also influential in decisions to stay or leave the organisation. In fact, these were shown to be valued, and the results indicate that market opportunities are also a significant factor in such decisions, regardless of current levels of affective commitment.

INTRODUCTION

In today's business climate where growth is largely a product of creative and technological advancements, human capital is one of a company's most valuable assets. To obtain a competitive advantage, companies must attract, retain, and engage talented employees. However, this task is becoming increasingly difficult because of scarce skills and mobility of workers. South Africa, like the rest of the world faces a shortage of smart, sophisticated business people that are technologically literate, globally astute and operationally agile across all industries (Nodangala, Naidoo, Buthelezi, & Holeni, 2008). Employment relationships based on mutual commitment between employer and employee are no longer the norm in human resource management in the market place. The new power base in the labour market is a group of mobile employees referred to variously as knowledge workers (Stewart, 1997). These are employees who have embraced the new career model, which matched their needs for greater career freedom, and who have sought-after knowledge and skills that place them in demand by organisations. These highly mobile knowledge workers display how the psychological contract has moved on from an era where there was an emphasis on job security and loyalty to the company to an era where the emphasis is on employability and loyalty to one's own career and skills set. Attraction and retention of knowledge workers is probably the biggest challenge in human capital management today (Gaylard, Sutherland, & Viedge, 2005). This research aims to identify attributes important to this group of valued employees.

PROBLEM STATEMENT

Frost (2001) points out that due to the competition in attracting knowledge workers, many knowledge based organisations find themselves in a dilemma, because as they grow and train their knowledge workers, they make them more marketable to competitors. Moreover, not providing skilled employees with opportunities to grow and advance will simply result in them leaving. The challenge for many knowledge based organisations today is how to come up with a working formula for attracting and retaining those employees considered core to their purpose and continued success of the organisation. From recent studies on employee retention, employers seem to know the importance of knowledge workers yet they still find difficulties in predicting the future needs of these mobile knowledge workers (Birt, Wallis, & Winternitz, 2004). It is imperative for organisations to have knowledge of these attributes in order to improve the attraction and retention of knowledge workers. This study, therefore, investigates attributes that are utilised by Accountants and IT specialists in identifying their preferred employers.

OBJECTIVES OF THE STUDY

- To identify attributes that knowledge workers utilise in identifying employers of choice;
- To determine whether knowledge workers in selected occupations utilise the same attributes when choosing employers of choice;
- To provide recommendations on strategies that organisations can use to attract and retain knowledge workers.

PRELIMINARY LITERATURE REVIEW

As South Africa becomes a player in the competitive international environment, local companies are competing for scarce skills. In trying to track records of factors used by knowledge workers to identify employers of choice, a study by Sutherland Torricelli, and Karg (2002), confirmed that knowledge workers considered career growth opportunities and a challenging work environment as important attributes of an employer of choice. The study used a population of postgraduate students to represent knowledge workers. However, the study did not manage to show whether the same factors that apply to postgraduate students, also apply to permanently employed workers.

On factors pertinent to talent attraction and retention Gaylard, Sutherland, and Viedge (2005), using the factor analysis, identified three factors that were found to be the most important to retaining workers. Equity and enablement for high performance; a liberated and empowered culture; and interactive and effective communication were identified as the most important factors. However, since the sub-samples in that study were from three different continents (Australia, the United Kingdom and South Africa), there might be contextual differences for individual countries.

Echoing similar sentiments on the factors perceived to influence the retention of knowledge workers, Sutherland Torricelli, and Karg (2002), pointed out a liberated and empowered culture, equity and enablement to high performance, and interactive and effective communication as the most important factors in retaining workers. Furthermore, issues such as social interaction and standard employment were seen as relatively not important in retaining workers. However, it must be noted that a number of variables occur in more than one of the factors and the factors are not truly independent of each other, there are thus possible interrelations between latent variables.

In terms of international comparisons, Horwirth (2004) investigated and compared human resource practices in organisations in South Africa and Singapore, another emergent country growing into developing markets, throws some light on strategies to find and keep workers. According to the research, popular strategies in these countries include developing talent within the company and developing career plans. The study revealed that three of top five effective strategies to retain workers are the same in both South Africa and Singapore. Offering challenging projects and work assignments to workers and giving them the freedom to work and plan independently rated as the top two motivation and retention strategies in both context, while affording in-house career development and promotion opportunities was viewed as a highly effective strategies used to attract and retain workers.

From the above discussion, it has become apparent that with the advent of knowledge economy, the area of talent management is a rigorously studied area with well great amount of well documented research findings of how to retain knowledge workers. However, most researchers have mainly focused on one group of knowledge workers operating in operating in a single sector. The question of whether knowledge workers across industries

utilise similar attributes remains unsatisfied in the talent management literature. It may be interesting and important to investigate specific attributes utilised by two groups of knowledge workers in three different sectors of the economy. The present study intends to investigate this new aspect by focusing on a cross-comparison of knowledge workers in banking, automobile, and retail sector.

RESEARCH METHODOLOGY

A quantitative research design will be used in the study. Questionnaires will be used to gather data from Accountants and IT specialists in the banking, retail, and automobile sector. As no sampling frame exists and no parameters are known, probability sampling will not be used. The researcher will utilise a judgment sampling method. This is a form of purposive sampling method. Judgement sampling is a viable method for obtaining the type of information required from very specific pockets of people who alone possess the needed facts and can give the information sought (Sekaran, 2003). A factor analysis will be used to group attributes into factors in order to determine attributes that Accountants and IT specialists utilise in identifying employers of choice. To determine whether knowledge in different occupations utilise the same attributes when choosing employers of choice, one way ANOVA will be used to compare across occupations (Ghuri & Gronhaug, 2005).

LIMITATIONS OF THE STUDY

As purposive sampling is a non-probability method of sampling, it is impossible to evaluate the extent to which such samples are representative of the relevant population (Welman & Kruger, 2001). Moreover, the present study falls under a cross sectional design that precludes a longitudinal study that may have determined causality.

PRELIMINARY FINDINGS

Studies reveal that knowledge workers place great importance on intrinsic factors when identifying employers of choice. However, extrinsic factors are also influential in decisions to stay or leave the organisation. In fact, these were shown to be highly valued, and the results indicate that market opportunities are also a significant in such decisions, regardless of current levels of affective commitment (Birt, Wallis, & Winternitz, 2004).

CONCLUSION AND MANAGERIAL IMPLICATIONS

The literature review showed that the problem of attracting and retaining knowledge workers is a global one, brought by the social transformation of the knowledge era and the consequent change in the psychological contract between the employer and employee. Managers and human resource in particular need to understand that high levels of knowledge worker mobility are a defining characteristic of the knowledge based economy. High levels employee commitment can be achieved but not long term loyalty. Organisations must develop a high level of competence in attracting and selecting competent knowledge workers and ensure the continual transfer and encoding of knowledge, so that in the event of knowledge workers leaving, their knowledge is retained by the organisation. In short, knowledge on talent management strategies by human resources managers is very imperative because, as Stewart (1997) noted, organisation's competitive advantage is largely depended on the specialised knowledge and skills possessed by an organisation's crop of knowledge workers. Failure to attract and retain these employees will result in loss of innovation opportunities that are significant growth drivers.

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SOUTH AFRICA-INDIA TRADE AGREEMENT: CREATION OF A WIN-WIN SITUATION FOR RESPECTIVE AUTOMOTIVE SECTORS

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ABSTRACT

South Africa and India have agreed at a political level to enter into a trade agreement. The main objective of the proposed agreement is to promote access to foreign markets, thereby creating opportunities for increased exports of domestic products and services. This is seen as an essential tool for accelerated growth and further employment for both parties. One of the sectors expected to benefit from the proposed agreement is the automotive sector. Using selective industrial policy, South Africa had succeeded in integrating the local industry into global automotive value chain as evidenced by significant increase in automotive exports and sustained sector employment in the last decade. The proposed agreement has a potential to support further the local industry growth but there is a risk that benefits there from could be skewed in favour of India whose automotive industry is more developed. The agreement may end up undermining achievements of the successful selective industrial policy for the automotive industry in South Africa. Against this background and in search for a win-win situation, the paper examines automotive industry policies in South Africa and India, and the respective industry characteristics. It analyses the potential effect of the proposed agreement on South Africa's automotive industry growth vis-à-vis the country's socio-economic objectives for supporting the local industry. The paper suggests that for a win-win situation to be attained in the automotive sectors, the South African automotive component sector has to go into joint ventures with the Indian counterparts.

INTRODUCTION

Automotive manufacturing is one of the areas in which China, India, Brazil and South Africa (CIBS) have made an impact on, and are likely to continue influencing global business. Through the use of selective industrial policy, South Africa has succeeded in re-integrating its automotive industry into the global automotive value chain. In order to consolidate the industry's growth in a free market environment, South Africa has embarked on making trade deals with other 'CIBS' countries. In 2004, South Africa and India agreed at a political level to enter into a trade agreement. Although the intended agreement is referred as SACU-India agreement, it is essentially an agreement between South Africa and India in as far as the automotive industry is concerned. South Africa happens to be the only country within the Southern Africa Custom Union (SACU) with an automotive industry. The main objective of the proposed agreement is to promote access to foreign markets, thereby creating opportunities for increased exports of domestic products and services, as an essential tool for accelerated growth and increased employment for both parties. It is envisaged also that the agreement will promote South-South trade as well as co-operation in multilateral trade forums, an aspect critical for sustained influence of CIBS in global business dynamics. The expectation is that an initial Preferential Trade Agreement (PTA), with tariff preferences on a limited number of products, will be establishment first. Over time, a free trade area could be considered. Start of negotiation was delayed, as each party needed to time to come up with offensive and defensive lists. The paper examines automotive industry policies for both South Africa and India and respective industry characteristics. It considers key trends in respective industry performance and analyses the potential effects of the proposed agreement on South Africa's automotive industry against the background of the country's socio-economic objectives for supporting the local industry as stipulated in the Motor Industry Development Programme (MIDP). South Africa's MIDP had been pivotal in the enabling successful transition of the domestic industry from operating in a protected market environment to being a global player. The paper

concludes with reflections on how the proposed South Africa – India trade agreement can be made mutually beneficial to both countries.

AUTOMOTIVE POLICIES

South Africa

Automotive production in South Africa started in the 1920s. Government used tariff regulation and local content requirements to guide industry growth (Black, 2001:779). The initial phase that lasted until 1961 was a classical case of import substitution, favouring simple assembly in the domestic market. Very high protective tariffs on imports created space for development of an industry of small plants, producing many models in small volumes at a high cost (Theledi, 2004). By the early 1990s, it was evident that the hitherto adopted inward-looking policy stance was not sustainable in the long run. The industry had to comply with General Agreement on Tariffs and Trade (GATT) and World Trade Organisation (WTO) trade regulations (Damoense & Simon, 2004:252). Domestic market constraint meant that exports had to play a big role in the industry growth. Government realised that industry needed encouragement with a number of “sticks and carrots” to change and improve its competitiveness (Coyne, 2000:11). Of major importance to Government was finding ways through which to maintain and grow the industry in a less protected trade environment. Table 1 summarises development stages of automotive policy in South Africa.

Table 1: Phases of automotive policy in South Africa

Policy Measure	Period
1. High tariffs	1920 to 1995
2. Local content requirements by mass	1961 to 1987
3. Local content requirements by Value	1989 to 1995
4. Import-export complementation (MIDP)	1995 to date
5. Productive asset allowance (MIDP)	2000 to date

Source: Damoense and Simon (2004)

In 1995, the South African government launched a Motor Industry Development Programme (MIDP) aimed at establishing a competitive industry, both locally and globally. The MIDP replaced a series of protection and local content requirements that had previously characterised the industry (Black, 2002:1; Barnes, 2000:9). The main objectives of the MIDP were to increase competitiveness of the industry, encourage industry growth through export, stabilise employment levels, improve the industry's trade balance and make vehicles more affordable in the domestic market (Barnes and Black, 2003:5). At the time, the industry was highly inward looking in nature (Black, 2001:5-8). The MIDP strategy was to rationalise the industry by reducing the number of models produced locally. It was envisaged that rationalisation would lead to reduced average costs by creating economies of scale and subsequently lead to competitiveness of the industry. To compensate for the discontinued models, an Import-Export Complementation (IEC) arrangement was instituted. Under the arrangement, firms would earn import rebates based on the value of their exports. The earned rebates could be used to offset import duties on Complete Built Units (CBUs) and components imported by original equipment manufacturers (Flatters, 2002:3).

The import-export complementation arrangement has been the driving force behind the high increase in automotive exports in the country. Total automotive related exports have grown by 30% per annum on an average basis and for component exports by an average of 31% per annum since 1995 when the MIDP was introduced.

In 2000, the government introduced another incentive for the industry, based on level of investment - the Productive Asset Allowance (PAA). The PAA allowed firms undertaking qualifying investment in the automotive industry to claim back 20% of the value of invested assets, in rebates, over a period of five years. Productive assets qualifying for the PAA were broadly defined to include capitalised research and development. The objective of the PAA was to further enhance the automotive industry contribution to economic growth of the

country through increased international competitiveness, productivity, employment in the industry, economies of scale and to compensate for the reduced protection due to the lowering of import duty on CBUs.

India

India is a fairly a new comer in the automotive business. Prior to the 1940s, the local automotive business comprised of mainly two-wheeled scooters. Passenger cars were considered a luxury item for the rich. The first documented explicit automotive policy started in 1947 soon after the country became independent. As with many late developing countries aspiring to industrialise at the time, the Indian automotive policy was in-ward looking and the industry was highly regulated. Government banned imports of cars and refused permission for assembly of imported vehicles that did not meet specific local content criteria. Between 1970 and 1985, the government started a gradual relaxation of industry regulations by allowing joint-ventures between the local industry and external global players, particularly from Japan. The closer cooperation between domestic component manufacturers and outside vehicle manufacturing companies, coupled with local restrictions resulted into growth of the component sector. By 1991, India had allowed four Japanese companies to operate in the country through joint-ventures.

India's automotive industry liberalisation phase, comparable to South Africa's MIDP, started in 1991. It was characterised by gradual opening up domestic industry to external players. Licensing requirement was lifted and the industry was allowed automatic approval of technological agreement with foreign companies. This was followed by the Extant Policy in 1995 under which government signed a memorandum of understanding with manufacturers of passenger cars and multi-utility vehicles to:

- Produce and not simply assemble vehicles
- Meet a minimum investment threshold of \$50 million per joint venture
- Indigenise component sourcing to 50% by the third year of production
- Attain foreign exchange use neutrally in their operation.

The third phase of the Indian automotive policy, which started in mid 1990s is still ongoing. It relates to the globalisation of the industry. The intention is for the domestic industry to capture a niche global market of small low cost cars and be a preferred supplier of components to a number of vehicle brands in the world. Table 2 below summarises phases of the India's automotive policy phases.

Table 2: Phases of automotive policy in India

Policy Measure	Period
1. Restriction vehicle import	1949-1970s
2. Gradual relaxation of controls and accepting of joint ventures	1970 to 1991
3. Industry liberalisation (Gradual)	1991 to 1995
4. Globalising (Extant policy)	1995 to 2001
5. Globalisation (Including environment policy)	2001 on wards

(Source: SAIC)

INDUSTRY CHARACTERISTICS

South Africa

The automotive industry is the leading manufacturing sector in the South African economy. It is the third largest contributor to national GDP after the mining and financial sectors. In 2005, the sector accounted for 7% of the country's GDP and 87% of Africa's vehicle output (Galbraith, 2007). The sector comprises 8 passenger car assemblers (all of them subsidiaries of multinational corporations), 12 medium and heavy commercial vehicle assemblers, 8 independent importers and over 270 first tier suppliers. Total employment in the sector amounted to 112,470 in 2002.

In the early 1990s, the majority of locally-based vehicle assembly (OEMs) companies were South African, owned under license by multinational vehicle manufacturers, and manufacturing exclusively for the domestic and the small Sub-Saharan African market. By early 2004, all of the OEMs were either fully or majority owned by parent companies. This has had a direct impact on the composition of the automotive components industry, with global component manufacturers establishing Greenfield operations in South Africa.

Most of the global vehicle brand manufacturers are represented in South Africa. These include Toyota, BMW, Volkswagen, DaimlerChrysler, Nissan, General Motors, Ford (incorporating Mazda, Land Rover and Volvo) and Fiat. Major platforms in the country include the Toyota IMV Hilux, BMW E90 – 3 series, and Mercedes Benz – W203 C Class. Many of these models are produced for both the domestic and export markets. For three models, IMV Hilux, Mercedes W203 and BMW E90, the export proportion exceeds domestic sales.

Despite its significant role on the continent, the South African automotive industry accounts for only 0.71% of the world's vehicle production. The industry still has a long way to go before it becomes a significant player in the global automotive business. The expectation, however, is that South Africa can explore its location advantage to penetrate the African market and use trade agreements as a leverage to export into developed countries markets.

India

In 2004, the Indian automotive industry's contribution to national GDP was 5%. Though industry contribution to the national GDP is not as significant as that of South Africa, unit vehicle production in India was 3 times that of South Africa in the same year. In global terms, the Indian automotive industry was ranked number 12, while South Africa was number 19.

The Indian automotive industry comprises of 18 OEMs with capacity to assemble more than 1.2 million vehicles annually (Table 3). The four top ranked manufacturers in terms of number of vehicles produced had a combined market share of 79% of total vehicles sold in 2004. Unlike South Africa, India automotive industry was not dominated by European or American OEM subsidiaries. Hyundai, a Korean company was the most successful OEM, having entered the Indian market in 1998. Hyundai was a market leader in the passenger car segment in India, except for the compact/mini car segment, where Maruti was dominant. Hyundai has a 19% share of the passenger cars segment. Toyota that entered the Indian market in 2002 had a 16% market share of the MUV segment and a 2% share of the passenger cars segment. In terms of overall industry production, Maruti Udyong was the highest producer followed by Tata Motors, Hyundai Motor India and Mahindra & Mahindra (Table 3).

Table 3. OEMs in India and unit production

OEM	Production (Units)
Maruti Udyong	472,938
Tata Motors	280,099
Hyundai of India	170,942
Mahindra & Mahindra	99,878
Ashok Leyland	48,888
Ford India	45,157
Toyota Kirloskar	41,097
Honda Sael	19,984
Hindustan	16,288
General Motors	15,172
Eicher	16,008
Bajaj Tempo	15,030
Swaraj Mazda	10,225
Skoda	3,427
Daimler Chrysler	1,600

Fiat	733
Volvo	379

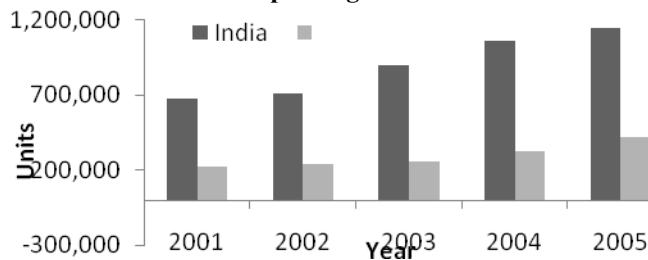
Source: SIAM

COMPARATIVE AUTOMOTIVE INDUSTRY PERFORMANCE

Passenger vehicle market

The passenger vehicle segment is the focus of automotive growth efforts in both South Africa and India. In terms of size, the South African passenger vehicle market is less than one third of the India market. In 2001, the Indian domestic sales of passenger vehicles stood at 675,116 units while that of South Africa was 225,000 units. The growth rates of domestic market sales were fairly similar for both countries in the period 2001 to 2005 (Figure 1); however the expectation is that the India market will grow faster given the size of the emerging middle class in the country. In terms of industry growth based on projected market size, the prospects of India are far better than that of South Africa. In the KPMG global automotive survey of 2007, senior managers and key players in the industry expected that the global market share was expected to continue shifting away from the North American brands in favour of Chinese and Indian brands. The South African market was not considered, most likely because of its small size and low expectation of high growth rates in future.

Figure 1. Domestic market for passenger vehicle: South Africa and India

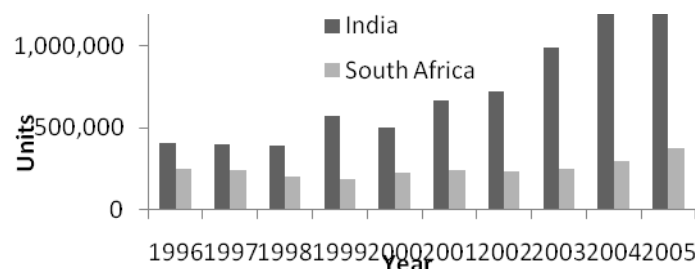


Source: Naamsa annual Report 2006 and SAICA

Passenger vehicle production

In terms of passenger vehicle productions, in 1996, India produced 161,261 vehicles more than South Africa. By 2005, this difference had increased to almost a million (Figure 2).

Figure 2: Passenger vehicle production: South Africa and India



Source: Naamsa Annual Report 2006 and SAICA

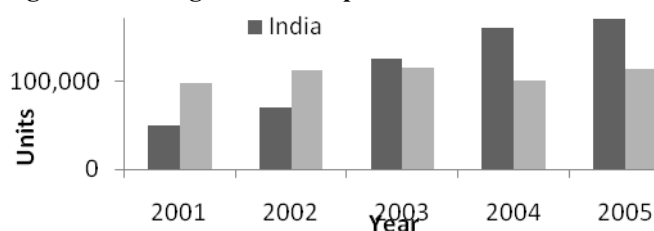
India's average growth rates in vehicle production over the period 1995 to 2004 were between 15% and 20% per year for passenger cars, light commercial vehicles and trucks, and it was 5% per year for multi-utility vehicles

and buses. Vehicle production in South Africa, across all segments, grew by an average of 4.2% per annum in the same period.

Passenger vehicle export

Exports acts as an indicator of the extent to which the domestic industry is becoming globally competitive, holding other factors constant. By 2001, South Africa was exporting more vehicles in the passenger category than India, 97,599 units compared to 49,273 units. After 2002, however, India was exporting more vehicles and the export gap with South Africa has been widening over time (Figure 3). In 2005, India exported 170,193 units compared to 113,899 units by South Africa. It is evident that India is not only making big strides in passenger car production but also in penetrating international market.

Figure 3. Passenger vehicle export: South Africa and India



Source: Naamsa Annual Report and SAICA

Automotive component export growth

Component manufacturing and export is yet another area in which India and South Africa are producing at different levels and are on different growth trajectories. Between 1997 and 2002, the automotive export growth rate of India was 0.9%, while that of South Africa was less than 0.5 on average. From 2003 onwards, automotive exports from India were increasing at an increasing rate, yet for South Africa the same period was characterised by declining component exports

The growth trend of the automotive component production in India has been more than 15% as from 1995 to 2002, and more than 22% in 2003 and 2004. There is strong expectation that the value of automotive export from India will increase to US\$2.7 billion by 2010. Automotive component production in South Africa, on the other hand, is facing the challenge of meeting technological requirements of local OEM subsidiaries, as prescribed by the parent companies. Moreover catalytic converter production, the main contributor to automotive component exports from South Africa, is under uncertainty as the global automotive industry moves towards use of Diesel Particle Filters (DPFs). South Africa is yet to undertake investment in DPFs production thus far.

POTENTIAL FOR A WIN-WIN SITUATION FOR SACU-INDIA TRADE AGREEMENT

Both South and India are looking at ways to increase benefit from the global automotive business. As late comers in automotive manufacturing, their common challenge is how to capture bigger market shares in international markets dominated by European and American automotive manufacturers.

Automotive products from South Africa and India, like other commodities from developing countries, face a number of 'smart tariff' and non-tariff barriers in entering developed country markets. Specific to the automotive industry, traditional vehicle manufacturers realise the competitive threat created by the low cost, but quality vehicles some of the developing countries have managed to put on the international markets. Creative steps are being taken to ensure that such small vehicles do not lead to the demise of automotive production in the European and American markets. South Africa and India therefore have a common interest to strategise and lobby for better market access deals to the developed countries' markets. The two countries' growing markets give them a bargaining tool in negotiating for better trade deals. Hence it is logical that South Africa and India

work in unison in international forums that seek to ease the flow of goods and services from developing countries to developed countries' markets.

Traditional players in the global automotive business do recognise, on the other hand, that future growth of their automotive industries is dependent on capturing new markets from countries like South Africa and India where more people are likely to buy new vehicles for the first time. Yet, South Africa and India are also looking at ways to increase automotive trade among each other, hence the proposal of the SACU-India trade agreement. Herein lies the conundrum – the need for the two countries to act jointly to access developed country markets, but at the same time forging a mutually beneficial trade with each other.

Given the characteristics of the automotive industry in South Africa, the proposed SACU-India Trade Agreement is likely to favour India. South Africa has a fairly small automotive market, compared to that of India, and which is growing at a slower rate. The country has no local brand and all the locally based OEMs are 100% foreign owned. The local component sector is weak and under pressure from 'imported' subsidiaries of global automotive component manufacturers that have been established in the country. There is little beneficial relationship between these global subsidiaries and the domestic component sector. The South African government has limited influence in what transpires in the industry. The government continued support of the industry is based on assumption that market opportunities for the local industry will encourage investment in the country, create employment and hypothetically create business for the local component sector.

The India government on the other hand, has a strong influence over the domestic automotive industry. The country has managed to develop its own brands that are slowly becoming recognised globally. Many of the OEMs operating in the country are in Joint ventures with the local companies or are entirely domestic. The country has established itself as preferred source of quality automotive components and low cost small cars.

To India, therefore, South Africa is an important market for its low cost brands as well as components for the aftermarket. Since OEMs in South Africa have concentrated on the production of luxury car, there is a big potential for India to fill the gap of low and medium priced cars.

The biggest challenge is on South Africa to carefully plan how it can benefit from a trade agreement with India under such circumstances. One possible way to achieve a win-win situation is for South Africa to take a pro-active policy on component manufacturing and it links to the proposed trade arrangement. Given the achievement that India has made in the automotive component manufacturing, South Africa should opt to go into joint ventures with the Indian component sector; for some of the components to be manufactured in South Africa and exported to Indian low cost brands. The arrangement should be specific on supply targets to be achieved and shares in the joint ventures. In this way the local component sector will be empowered to supply components to upcoming global brands. India will benefit from the market access concessions to South Africa, while South Africa's automotive component sector will be supported in achieving global competence levels, over and above having affordable vehicles in the domestic market. At the international scene, it will be in the interest of both countries that the low-cost Indian vehicle brands get bigger market share since South Africa will be a component supplier to the brands.

CONCLUSION

Trade cooperation among CIBS countries will play an important role in creating synergies among them in influencing global business. Such cooperation, however, may be constrained by national industrial policies that may not be aligned to support such trade cooperation. This is the case with the proposed SACU-India trade agreement as it relates to automotive sector. CIBS countries need to come up with creative ways that enable beneficial trade among each other, yet without jeopardise successful national industry policies. For South Africa and India, joint ventures in automotive component production can serve this purpose.

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EXTENDING THE UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY FOR E- REGISTRATION

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ABSTRACT

This paper describes a conceptual framework for measuring university students' acceptance and use of online-registration system using the Unified Theory of Acceptance and Use of Technology (UTAUT). The study is informed by empirical evidence of a case study of Tshwane University of Technology (TUT), with survey sample of 300 students from four campuses: Pretoria, Shoshanguve, Ga-rankuwa and Polokwane. Analysis of results shows that effort expectancy, awareness and exerted pressure are major factors that influence the acceptance and use of online registration system by university students as against the facilitating conditions and attitude. The gender moderating factor showed little correlation to the results where as experience with web-based tools plays a significant role. The study contributes to the literature of students' acceptance, adoption and use of web-based tools in the academic arena.

INTRODUCTION

Many South African universities are in the era of post merger which factor has caused an exponential increase in their demographic structures. Thousands of students are admitted every year and are given limited time to register. In an attempt to meet the registration deadlines, all students tend to register at the same time. This causes chaotic situations as the university staff becomes overwhelmed by the work due to big numbers hence ending up being inefficient. At worst situations this may also result into strikes as students complain of poor and slow services. In order to ease this problem, universities have invested huge sums of money acquiring management information systems like the integrated tertiary software (ITS) a web-based tool, with a student iEnabler system that provides an online real-time access to the ITS system, enabling prospective and registered students of the institution to gain access through secure logons to their own personal biographic and academic data. Enabling them to; make application both for studies and residences; register; do inquiries; carry out electronic payments e-payments and make requests for information at any time and in any place. If effectively used, this would save students from time wastage and other unnecessary expenses. However, much as huge sums are spent in acquiring these systems, research (Nanayakkara, 2007; Jong & Wang, 2009; Drennan et al, 2005; Selim, 2003) shows that students may not use the systems for various reasons.

Some researchers (Kendall et al., 2001; Macharia, 2009) in information systems; have attributed factors for, perception, adoptions, acceptance and usage of technology to macro-factors such as profit, competitive advantage, and innovation. Many other researchers (Venkatesh et al., 2003, Jong & Wang, 2009; Drennan et al, 2005 and Marchewka et al., 2007) have argued that apart from economic factors, there exist many other critical factors that influence individual's acceptance and use of technology. This paper extends the unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2003) to examine the overall factors that influence students' behavior in accepting and use of online registration system. The examined constructs are awareness, exerted pressure, attitude, effort expectance, social influence, facilitating factors and behavior intention. These were moderated by, age, gender, faculty, course of study and experience with web-based tools.

The major objective of this paper is to develop a conceptual framework using the UTAUT from the students' perceptions. Many universities have hugely invested in information technology to effect their daily operations. However, more research has been focusing on exploring the effectiveness of course management software and little attention had been paid to the human resource facilitating systems like e-registration. It is therefore paramount to establish such a system's effectiveness from the students' point of view. As (Jong & Wang, 2009; Marchewka et al., 2007) put it, this study findings will help universities to make informed decisions while investing in information technology (IT) and also to decide whether or not to further invest in such systems. It will also help them to make better proposals for enhancement in the subsequent versions. This study also contributes to the literature of students' acceptance, adoption and use of web-based tools in the academic arena.

RELATED LITERATURE AND RESEARCH FRAMEWORK

Tshwane University of Technology (TUT) online registration system is a component of the integrated tertiary software (ITS) that was designed with an intention to benefit tertiary institutions in the process of registering students basically at the beginning of the semesters. However, benefits of this system to be realized usage and full utilization are key factors. It is essential to have a level of understanding of whether such a system is accepted by the users, or effectively used and fully utilized. Researchers (Friedman & Hoffman, 2001; Delone & Mclean, 2002; PoPo Poon & Wagner, 2001) who have studied information systems' failures and successes in organizations, do agree that organizations under look critical factors that involve culture; social structure; individual behaviours; perception; and models of information sharing which factors play major roles in information technology acceptance and usage. These factors therefore need to be assessed and a proper conceptual framework developed.

It is important to note that systems that are used periodically like the online registration system differ in their initial adoption and subsequent continued usage. Researchers (Hsu & Chiu, 2004) noted that the factors that influence acceptance and adoption of such systems may vary from that of continued usage. Students tend to use such systems when there is pressure to meet the deadline. When the period for registration ends, many students will tend to forget the usage process of the system as many are not likely to have usage experiences and enough IT skills. Further more the post adoption experiences with the system may influence the students' perception and attitude towards it, and in turn greatly impacts on its continued usage. Unfortunately most information systems research is more on acceptance than usage and many models or theoretical frameworks have been developed in this regard. Such models include; Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975); the Technology Acceptance Model (TAM) (Davis, 1989); the Theory of Planned Behavior (TPB) (Ajzen, 1991); and the extended technology acceptance model (TAM2) (Venkatesh & Davis, 2000). Research further shows that different researchers (Mathieson, 1991, Lucas & Spitler, 1999; Hyosun & Laku, 2000) have gone ahead to extend, modify or replicate these models but in all usage especially for the systems that are used periodically is given little interest. This research acknowledges that technology acceptance is a prerequisite to adoption and usage, but care should be taken as not all systems operate or are used in the same way.

This study extends UTAUT (Venkatesh et al., 2003) to embrace both acceptance and usage of online registration system. UTAUT derives its name of unified theory from its consolidation of other eight previous models. UTAUT's constructs; performance expectancy, effort expectancy, social influence, and facilitating conditions moderated by gender, age, experience, and voluntariness have been proven to be very predictive. However, recent research (Marchewka et al., 2007; Pu Li, & Kishore, 2006; Tibenderana & Ogao, 2008; Cody-Allen & Kishore, 2006) shows that UTAUT may apply better if its constructs are either modified or the theory extended to fit the technology being investigated. This study therefore extends UTAUT model to include, awareness of online registration system, attitude towards using web-based tools and exerted pressure to register on time by replacing performance expectancy. The voluntariness of use moderating factor was replaced by course of study and the experience with technology with experience with web-based tools.

METHODOLOGY

This study is informed by empirical evidence of a case study of Tshwane University of Technology (TUT), with survey sample of 300 students from four campuses: Pretoria, Shoshanguve, Ga-rankuwa and Polokwane.

Stratified sampling of courses of study was used in order to get a representation of students from various courses and at different levels of study. Three categories of students' population were targeted; those doing National Diploma 30%, BTech 60% and Postgraduate MTech 8% and DTech 2%. Of these respondents; 61% were female and 39% were male. A close-ended questionnaire was developed based on the instrument developed by Venkatesh, et. al. (2003). In order to suit this study some parts of the instrument were modified, new constructs brought in, with the corresponding moderating factors. Six constructs were examined on a seven-point Likert scale where 1 represented a strongly disagree and 7 represented a strongly agree.

DATA ANALYSIS

The data in this study was analysed using SPSS, the researcher's choice came as a result of SPSS availability as a free software at TUT and its potential to model the reliability of variables.

Limitations

Much as students were sampled from four campuses of TUT, there is a correlation between the students of this university as many of them are coming from less privileged backgrounds. It is the researcher's belief therefore, that the findings may not actually portray all students in South Africa or in the developing world. Furthermore, since the researcher, depended most on lecturers to distribute the questionnaires to the students shortly before or after lectures, students answers may not be very correct as they may have been influenced by the lecturer's presence.

Analysis of Results

Table I below shows the demographic analysis of the participants.

Table 1: Demographic data of the respondents (N = 300)

Investigated Factors	Content	Number of Respondents	Percentage %
Campuses	Soshanguve	194	64.7
	Pretoria	20	6.7
	Garankuwa	28	9.3
	Polokwane	58	19.3
Faculty in which the student is registered	ICT	223	74.3
	Science	12	4
	Education	10	3.3
	Economics and finance	47	15.7
	Engineering and Built technology	8	2.7
Course or level of study	National Diploma	90	30
	BTech	180	60
	MTech	24	8
	DTech	6	2
Student's Status	Fulltime not working	80	26.7
	Fulltime and working	32	10.7
	Weekend and working	160	53.3
	Weekend not working	20	6.7
	Part – time working	8	2.7
Age group	17-19	25	8.3
	20-22	26	8.7
	23-25	40	13.3
	26-28	56	18.7
	29-31	58	19.3
	32-34	69	23
	34+	26	8.7
Gender	Male	118	39
	Female	182	61
Web-based tools used before	Google chat	45	15
	Face book	208	69.3
	Internet Banking	21	7
	Online payment systems	8	2.7
	Online registration systems	68	22.7
	e-business	10	3.3
	Never used any	100	33.3
Awareness of e-registration	Ever heard of e-registration before	146	48.7
	Never heard of e-registration before	154	51.3

Reliability Analysis

Scale reliability was measured by calculating coefficient alpha. Item-by-item analysis was performed to establish whether coefficient alpha could be improved by removing some items. The results of the Cronbach's Alpha reliability analysis are as shown in table 2.

Table 2: Cronbach's Alpha reliability

Constructs	Questions per construct	Cronbach's Alpha
Awareness (AW)	7	0.813
Exerted pressure (EP)	6	0.802
Effort Expectancy (EE)	4	0.901
Attitude (AT)	5	-0.001
Social Influence (SI)	5	0.785
Facilitating Condition (FC)	5	0.570
Behaviour Intention (BI)	3	0.978

The tested variables showed a good level of reliability apart from attitude and facilitating conditions whose coefficient alpha is far less than the required 0.70, with attitude having a negative coefficient alpha. These two constructs attitude and facilitating conditions were dropped in the proceeding analyses.

Correlation of Results

Discriminant analysis was carried out to determine the inter-dependency of constructs giving their binomial categorical outcome as shown in table 3. The data shows little relationship between constructs save for awareness and behaviour intention. Exerted pressure and social influence also indicated a positive correlation to the behaviour intention.

Table 3: Average shared variance (AVC) and Correlation of Constructs (N=300)

Constructs	AVC	AW	EP	EE	SI	BI
AW	0.72	0.97				
EP	0.98	-0.28	0.88			
EE	0.81	-0.18	-0.13	0.93		
SI	0.83	-0.32	-0.66	-0.12	0.82	
BI	0.80	0.32	0.14	-0.19	0.11	1.00

Descriptive Analysis

In order to understand students' perceptions of acceptance and use of e-registration, descriptive analysis was used to give a quantitative clear insight of the research. The tables 4-8 below give a summarized analysis of the results obtained from SPSS as were extracted from the questionnaire.

Table 4: Descriptive Analysis for Exerted Pressure Construct (N=300)

		I find it useful to use e-registration when the deadline is near	I prefer to use e-registration when I am not sure that I will manually register on time	I may not use e-registration even if the deadline is near	I would use e-registration to avoid long queues at the university
N	Valid	300	290	295	280
	Missing	0	10	5	20
Mean		5.75	4.50	2.5	4.18
Std. Deviation		1.496	2.213	1.835	2.548
Variance		2.238	4.897	3.367	6.492

Table 4, gives the summary of the results obtained from exerted pressure construct. The high mean value of 5.75 came as a result of 124 students (41.3%) strongly agreeing that given a situation of increased pressure to meet the deadline they will be left with no option apart from using the online registration system.

Table 5; Descriptive Analysis for Awareness Construct (N=300)

	I am very much aware of how to use the online registration system	I have ever used the online registration system	I would have used the online registration system if I was aware of it	I find the online registration system useful	Using the online registration system would enable me to register quickly	Many students are aware of the online registration system	Many students would have used the online registration system if they were aware of it
Mean	4.95	3.88	5.20	5.44	5.66	4.75	5.49
Std. Error of Mean	.269	.310	.246	.252	.218	.241	.230
Std. Deviation	2.086	2.401	1.892	1.932	1.678	1.853	1.765
Variance	4.353	5.766	3.579	3.733	2.814	3.434	3.116

Results in table 5, shows that many students acknowledge that using the online registration system would help them to register quickly but few have tried to use it. About 115 (38.3%) strongly agreed and 75 (25%) agreed that if students were aware of the online registration system, they would probably have used it. This shows that awareness is a crucial factor in acceptance and use of e-registration.

Table6. Descriptive Analysis for Effort Expectancy Construct (N=300)

	My interaction with the online registration system is clear and understandable	It is easy for me to become skillful at using online registration system	I find online registration system easy to use.	Learning to operate the online registration system is easy for me.
Mean	4.74	5.57	5.07	5.19
Std. Deviation	1.878	1.718	1.917	1.787
Variance	3.528	2.951	3.674	3.194

Table 6, shows that much as students believe that it may be easier for them to become skilful in using the online registration system, their interaction with the system remains unclear and limited.

Table 7; Descriptive Analysis for Social Influence Construct (N=300)

	People who influence my behavior think that I should use online registration system	People who are important to me think that I should use online registration system	The administration of this university has been supportive in the use of online registration system	Generally the university has been supportive in the use of online registration system	The lecturers and other academic staff have been supportive in the use of online registration system
Mean	4.34	4.95	4.93	5.07	4.66
Std. Deviation	1.841	1.858	2.017	2.034	2.181
Variance	3.388	3.453	4.066	4.136	4.756

Table 7; indicates the much the university may be supportive in using of the system, peer influence and influence from other people is highly associated with students acceptance and use of the system.

Table 8; Descriptive Analysis of Behaviour Intention Construct (N=300)

	I intend to use e-registration	More likely I will use e-registration	I plan to use e-registration
Mean	2.20	2.58	2.78
Std. Error of Mean	.199	.151	.183
Std. Deviation	1.538	1.169	1.415
Variance	2.366	1.366	2.003

Students' intention to use the system was found to be very low. When they were asked whether they intend to use the system 48.3% showed no readiness to use it soon, and 20% where not even sure whether they will use it come the next semester. This implies that if the e-registration system is to be used much effort is needed to make the students aware of its existence and also to make them feel comfortable with the system. This comfort may be achieved through training of students on how to use the system, establishing a help desk to assist those students who registering online or to improve on the system to have many self help functionality.

CONCLUSSION AND RECOMMENDATIONS

This paper studied factors leading to students' acceptance and use of online registration system basing on UTAUT. The suggested constructs to modify UTAUT have been evaluated and some found suitable for the scope of this study. The suggested model figure 2, replaced "performance expectancy" with "awareness" and "facilitating condition" with "exerted pressure". Attitude was initially suggested as a new construct that could be introduced in the modified UTAUT model, but its reliability was found very weak after the analysis of results hence was discarded. The "voluntariness of use" facilitating factor by "course of study" and "experience with technology" was modified to "experience with web-based tools". The findings of this study are in conformity with those of other researchers (Kishore , 2006; Tibenderana & Ogao, 2008) that UTAUT's constructs are very predictive in the acceptance and use of technology.

It is essential to note that the model suggested in this study (figure 2) is not tested further study should concentrate on testing the workability of this model and its application to students of the developing world.

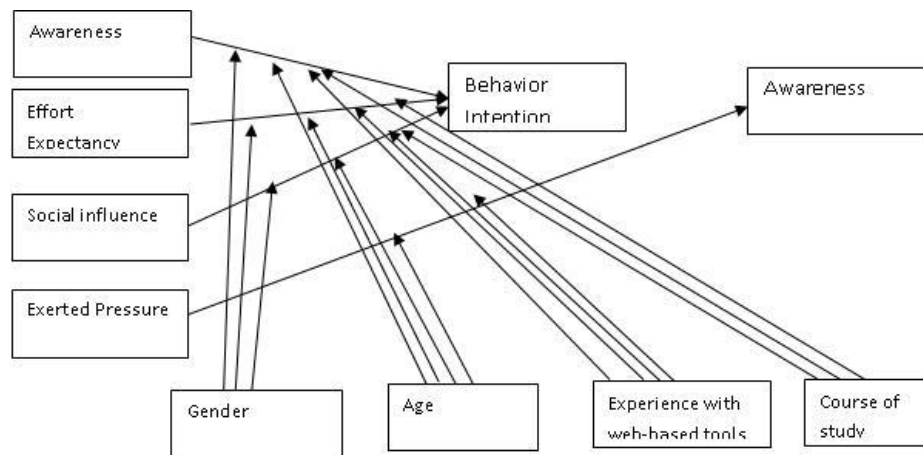


Figure 2: Modified Model of UTAUT to fit e-registration

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BRIDGING THE GAP: THE INTER CULTURAL CHALLENGES WITHIN THE CORPORATE ENVIRONMENT OF TANZANIA

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ABSTRACT

This exploratory research attempts to address the hidden challenges that are faced by Caucasian expatriates and the local Tanzanian workforce, working together in the corporate environment. Through surveys and interviews, expatriates and Tanzanian managers were gauged on their knowledge of each others ethnic and national cultures and its impact on their organization's culture. The analysis drawn from the data suggested that western management theories can not be implemented in Tanzania, without a certain element of hybridization between the local cultural values with the head office culture. It is through such awareness that expatriates can become the transformational leaders and change agents that is required to bridge the cultural gap.

INTRODUCTION

A large part of the success of any organization depends on its organizational culture, which in turn depends on the success of its employees working together, understanding and being committed to the values of the organization. As FDI keeps increasing within Tanzania, and there continues to be a lack of skilled human resources, the need for expatriates in managerial positions remains. Expatriates come with their own individual cultures, their previous experiences and their own home organization culture but little knowledge of the culture they are about to operate in. As a result most expatriates have a very difficult time adapting and adjusting to the Tanzanian culture, leading to frustration and poorly functioning organizational cultures. The object of this research is to try and establish why implementation of western management theories do not work in Tanzania, what challenges the Caucasian expatriate faces when trying to adjust to the host organizational culture, explore to what extent these challenges arise because lack of prior cultural awareness regarding the host country and its people. It takes a closer look at how the organizational culture is perceived from the expatriate's point of view vis-à-vis the Tanzanians and seeks clarification on what challenges the Caucasian Expatriates and Tanzanians face whilst working together, and the extent to which these challenges are visible or invisible. From the research, the results are analyzed and discussed, and recommendations suggested on how to bridge the gap between these inter- cultural challenges existing within the corporate environment of Tanzania.

BACKGROUND

Understanding culture is complicated. Trompenaars and Hampden-Turner (2008) state: "Culture like an onion, consists of layers that can be peeled off." The outer layer is the most obvious visible layer and easily understood. The challenge lies in understanding and conquering the inner or invisible layers, which address issues such as the norms, values and beliefs of the country, its people, their traditional values and perceptions in relation to their own culture, and more importantly their acceptance of other cultures, particularly within the organization. It is quite often the lack of understanding of these cultural challenges, which lead to the failure of bridging the gap between the expatriates and the local employees. This can result in decreased productivity and/or failure of the organization. Moran et al (2007) state this clearly when they write: "*A cross-cultural faux-pas results when we fail to recognize that persons of other cultural backgrounds have goals, customs, thought patterns and values different from our own.*" Today with globalization and crosspollination of cultures, an

individual struggles within himself and his cultural identity, especially in East Africa. Individuals, particularly from an ethnic or orthodox culture undergo a process of culture dynamics. In the village or at home they conform to societal culture, in the national society they are law abiding citizens and at work they conform to the organizations culture. At each stage there are different cultural expectations, visible and invisible, that are demanded of him, irrespective of whether the individual may agree or disagree with them. This adapting and juggling of cultural expectations creates within a process of cultural dynamics. The exposure to different societies and their cultures, adds to the dynamics, and quite often leads to very confused individuals, who are constantly searching for what's right and what's wrong. Through these dynamics and their personal experiences, individuals form their own perception of life and their own individual culture of beliefs and values, which differentiates them from each other. The extent of these dynamics within the individual affect how he perceives change management, adapts to it, and how he will perform within the organization.

The theoretical explanation of the components of the micro-culture can best be explained through the work of Moran et al (2007). Moran's framework shows that for a progressive transformation of the organization's internal culture (visible and invisible layers), creating the desired output requires the input to be in harmony with all the aspects of the organizations culture. For example, if the language is not common amongst employees, then that will be a barrier to communication. To complicate things further, there exists within this micro culture a formal and informal structure. The formal structure is the management and the informal structure is the relationships and friendships created at an internal level, and usually amongst one's own. The formal, informal structures, visible and invisible layers are mutually dependent on each other, and together affect the transformation process of the micro culture. The organization must be aligned with both the external and internal environment. As this requires one to deal with individuals from different national backgrounds, with different sets of values and beliefs, it is a continual challenge and failure to achieve any alignment would give rise to value misalignment within the organization. Woldu (ND) explains this by saying "in order to manage human resources effectively and minimize failure rate of international businesses in LDC'S, it has become very important for expatriates to understand the cultural value system of countries. Understanding value system of employees can help managers in designing strategic human resource policies that can positively impact productivity, the process of business negotiation and building good relationship between management and labor." Therefore, when one talks of an organizational culture being just the values, beliefs, vision and mission of the organization, they are wrong. It is a very intense and intricate relationship that exists between employees and management, employees and their individual cultural backgrounds, their beliefs and values compared to those of the organization, the organizations culture and its adaptability to the national laws and regulations, and in globalization the ability of the head office not to impose their own organizational culture onto the host country. For any expatriate, creating this synergy is their biggest hidden challenge. Given that an organization is dependant on its human resources for performance, it is imperative that any foreign national entering a new country, must understand the values of that particular culture, what motivates them, and what they can identify with and relate to, so as to better understand their mental attitude to work

METHODOLOGY

The participants were chosen from International firms and MNC'S operating within Tanzania. The organizations were from the private sector ranging from the Hotel Industry, the Mining Industry, the Breweries, Cement companies, Insurance companies and others. The participants were Caucasian expatriate managers and local Tanzanian managers, working for Expatriate managers (all male – a common feature, hence the "prefix "he" will be used henceforth). Some of the expatriates interviewed were MD's and some were departmental managers. The local Tanzanian managers were departmental heads not holding very senior positions. This was important as they were the ones who were interacting with their colleagues lower down the employment ladder, as well as the expatriate managers, thus would have a better understanding of the challenges faced by all. They are also the ones who are in the front line for trying to implement any change. The survey questions, derived from the literature, were designed to assess the cultural knowledge that the expatriate managers had of Tanzania and the challenges faced by the expatriate manager and the Tanzanian manager working together in the organizational culture. There were two sets of questionnaires created, one for the expatriate manager and one for the Tanzanian manager. Though both were similar in the structure and content, some of the question differed. The survey consisted of some open ended questions, some multiple choice questions, using either 3 or 5 point Likert scales. The total sample was 20 - 10 Tanzanians and 10 Expatriates. A total of 40 surveys were distributed via electronic

mail, but only three responded. Due to this poor response, the rest of the research was carried out through face to face, semi structured interviews.

RESULTS AND DISCUSSION

The samples for the research varied greatly in the managerial positions interviewed, for both research subjects. In the case of the expatriates, most were in MD positions or senior management level, and with the Tanzanians, most were departmental managers. A senior level manager or MD would not have been appropriate for this research. Where possible, subjects were chosen from the same organization, so as to provide some consistency in variance. The priority was to get as many responses as possible from multiple organizations to see if the challenges were consistent and common for both subjects. In terms of demographics all had worked an average of three years with the company (not necessarily within Tanzania); All the expatriates had worked outside their home country in other African countries, only two Tanzanians had worked outside Tanzania; the common African countries that they had worked in were Namibia, Zambia, Uganda and South Africa; the expatriates had been working in Tanzania for over a year, some over 6 years; seniority in positions varied between the expatriates and the Tanzanians. Expats were asked "Prior to your posting, how well were you aware of the Tanzanian culture in terms of norms, values, expectations and behavior? (1=not at all, 2=little, 3=completely). Almost 70% of the expatriates were not aware of the culture they were about to work in. The few that did, based their assumptions on what they had experienced in other countries, but they also found that Tanzania was not like any other African country, and previous experiences could not prepare one for the Tanzanian culture. The challenges were completely different. Expats were asked "what sort of preparation or training about the cultural challenges did you have before arriving in Tanzania?" (1=not at all, 2=little). Seven respondents reported that they had had no training at all, while 3 indicated that they had been given some training. The little training that the expatriates had was self taught by asking around, reading books, searching on the internet, it was not given to them by the employer. When asked, all the Tanzanians thought that all expatriates should be thoroughly briefed about the cultural challenges that exist in the organizational culture and the Tanzanian Society. The above views indicate that the expatriates came in blind and thrown in the deep end without floaters. The floaters are the cultural knowledge that any expatriate needs to survive in Tanzania. Just because he thinks he can swim, does not mean he can, and this is the expatriates' mistake. Tanzania is a unique country; with different values at both micro and macro cultures. Tanzanians are used to colonialism and socialism, they are not aware of the modern world, what they see is mostly in movies, but organizations are not movies. The clear implication is that counselling should be mandatory for any expatriate coming to Tanzania. Awareness of the country's societal culture and national culture is important. Then only will he be able to manipulate and integrate the head offices organizational culture successfully in to the Tanzanian sub unit.

Cultural Challenges

The following questions were asked to determine what were the individual challenges faced by each of the different cultures working together, and to determine how certain identified challenges are perceived by each subject within the organization. In response to the questions "As an expatriate, are there any other cultural challenges/barriers that you faced both at work and at home when you moved to Tanzania?" the responses of Expatriates were summed up by the following key statements: Tanzanian are completely different from other Africans; Lack of consistency; Understanding the Tanzanian Time, things take too long; Lack of sense of urgency, efficiency; Dishonesty; No future outlook; Logistical challenges; Language; Lack of pro activeness, self initiative; Want back handers/ bribes; Government Bureaucracy. In response to the statement "Please specify what are the challenges you face at work whilst working with the expatriates?" The responses of Tanzanians were summed up by the following key statements: Superiority syndrome (Expats think they are superior to Tanzanians); Most expats come with preconceived ideas; Expats have a closed mind towards the local people; Expats are ignorant toward the local community and culture; Expats are at a greater advantage with their knowledge in modern information Technology; Expats have a diverse field of experience; Some expats have lower academic qualifications than the Tanzanians managers, but still have a higher posting. There are two blind spots arising from these different perspectives. First, since colonial times, the white man has always been looked upon as a figure of authority and indeed superiority, and father of change and modernization. Consequently there is an underlying inferiority complex within the Tanzanian which the expatriate would not understand.

Second, expatriates lack cultural knowledge on Tanzanians' concept of time hence becoming frustrated. The implications are clear. Tanzanians need to become more self confident and consider expats as their leaders to learn from, not to feel exploited. Expatriates need to move away from finding faults in their employees and instead understand their limitations, by talking to them, finding out how they think, why they do the things they do, and make them feel they are part of the team. This is especially needed with those Tanzanians holding managerial positions. Expatriates also need to create an element of trust and respect toward the Tanzanian.

Both the Expats and Tanzanian were asked "To what extent is your organization affected by the following cultural challenges, please rate on a scale of 1 to 5, where 5 is the highest. The subjects were asked to answer the question from the point of view how the management and the shop floor workers are affected. The results showed that most significant common challenges that exist are trust for one another, language, high taxes, understanding each other, accepting and adapting to western management styles. There was some divergence in other areas, with almost polar opposite views in the areas of corruption and bribery, non binding legal systems, lack of incentives for investors, inefficiency of time keeping by employees, and lack of human resources with the expats rating them as high and the Tanzanians rating them low. The blind spot from this is that what the expatriate sees as a challenge is not necessarily what the Tanzanian sees as a challenge, this basic lack of understanding of the invisible layers is what can lead to a multitude of other misunderstandings that will ultimately cause disruption in the organizational flow and value misalignment. Bridging gap requires that once there is awareness of the cultural challenges, communicate to the employees what the employer's expectations are, his needs and values, then see how they differ from the employee's values and needs. Communication through story's and proverbs, like an elder would speak to his family, is the ideal mode of communication. The expatriates are the change agents, and they need to identify and appoint a local manager, as their internal change agent, who can communicate with the employees, honestly and professionally, without using his position to administer power. Teach the employees English as an incentive and a means of improving communication.

Cultural Characteristics

Certain cultural characteristics that are common within the African, but more prominent within the Tanzanian were extracted from the literature review, and presented to both subjects. The expatriate was asked if he was aware of them prior to coming to Tanzania. The Tanzanian was asked if he agreed with them. The X axis is the description of the characteristics which can be found in legend below.

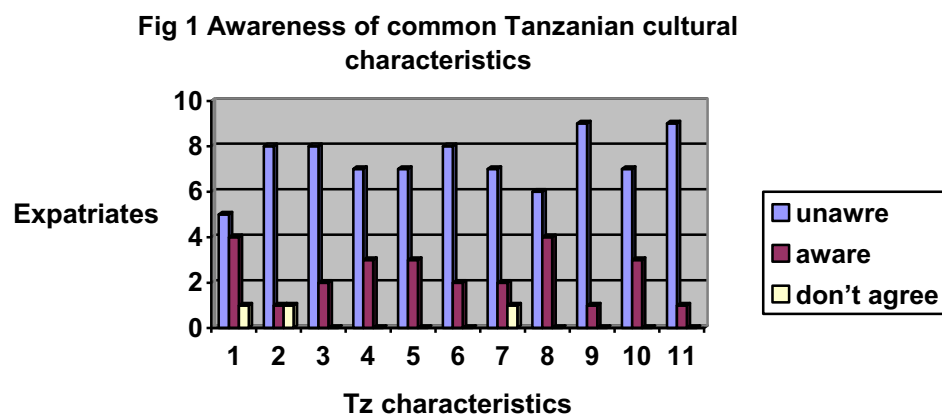
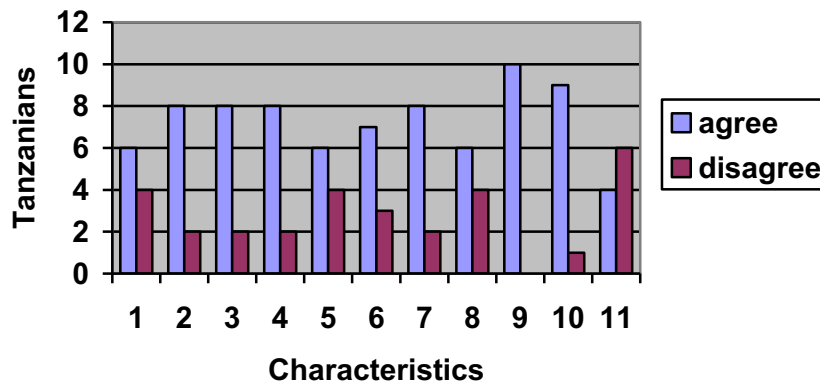


Fig 2 Tanzanians agreement/disagreement of the characteristics



List of characteristics: 1 = There is a lot of belief in the supernatural; 2 = There is a continual reference to proverbs and mythology; 3 = Don't like to face confrontations; 4 = Loyalty is first to their own kinship and family and then the organization; 5 = They expect favors from their leaders and in turn give obedience and deference; 6 = Due to their paternalistic nature, they prefer leaders who are kind, considerate, understanding; 7 = Rewards in terms of assurance and security are more important than job satisfaction; 8 = Respect in a social setting, position and prestige and tribal recognition are catalysts for motivation, but not necessarily for performance; 9 = If they do not identify with and accept new values enforced on them they resist change; 10 = They don't like accepting mistakes, and will minimize their work to avoid repeating mistakes rather than improve on them; 11 = Future Time has no meaning for them; time is the past and present

The results showed that 80% of the Tanzanians strongly agreed that proverbs and mythology were still important, they don't like to face confrontations or accept mistakes, and loyalty is first to their own and then the organization. The characteristics specified were basic but important in understanding the Tanzanians, yet almost 90% of the expatriates were unaware of them. This is an important blind spot because how do you manage people if you don't know what makes them perform? To overcome this barrier it is important that when instilling new values, or introducing a new approach, Expatriates need to justify and educate the employees on reasons and advantages for the change, and explain how the change will help them. If they make mistakes, correct them in a dignified manner. It is very common to see heated confrontations happen between manager and employee, or even between employer and domestic servant. They deserve the same respect as anyone else. The Tanzanian is changing; he wants assurance and security in the job. Create long term investments such as pension plans, medical insurance, carrots that will make him feel safe. Remember his needs are different from yours.

The Element of Time

To determine the concept of time in both cultures, the respondents were asked to rate a series of statements on a scale of 1 to 5, according to how they felt about it, 5 being the strongest and 1 the least strong. The statements were: I feel strongly that time is a scarce commodity and I value it highly; I always wear a watch and refer to it regularly in order not be late for anything; When leading a meeting, I make sure that it begins and ends on time; I seldom think much about the future, I just like to get involved in things as they turn up; When involved on a project, I tend to work on it until completion, even if it means being late on other things; I resist a scheduled life, preferring to do things on the spur of the moment; I tend not to worry about potential problems; I wait till a problem develops before taking action; When I set a goal, I dedicate myself to reaching the goal, even if other areas of my life suffer as a result of it; If offered a promotion which entailed moving to another city, I would not be held back by relationships to parents or friends; I have set specific goals for what I want to accomplish in the next year and five years; Even in a hurry while running errands, I will stop and talk to a friend.

The results are interesting. The element of time is a crucial cultural factor that cannot be overlooked. Time for the expatriate is money, and punctuality and efficiency are the modes under which he operates. At work the organization comes first. For the Tanzanian, time is now, tomorrow has not come, and at all times, family time precedes over organization time. From the research, it was found that both value time highly, yet unlike the expatriate, the Tanzanian felt strongly about not worrying about the future problems, tackling things as they show up. Majority of the expatriates felt strongly about having set goals for the next five years, and completing set goals. Throughout the survey, the expatriates felt strongly that the concept of time in terms of performance and delivery has been one of their biggest challenges. The results show the discrepancy in the perceptions of time, but it also showed some Tanzanians are beginning to think about the future, if not for the organization at least for their own security. The blind spot is clear. The future for the Tanzanian is not yet comprehensible. If you offer him \$10 today or \$30 after a week, he would take the \$10. Any expatriate trying to fight this behavior will fight a losing battle, as it is still a prominent cultural trait that exists today at all levels within all organizations, government and private. It requires a process of change in a cultural habit that has been nurtured over many generations, difficult but not impossible. The element of responsibility and importance of time related performances are still a foreign concept. Overcoming such a perspective means Expatriates need to be practical of their expectations. They need to explain why doing things now are important. It's almost like treating your employees as school children, and explaining the why, how and what of the importance of efficiency and punctuality. They need to create the awareness through training and coaching about the importance of time in a business. Incentives through awards should be established for commitment to performing tasks on time. Changing the importance of time in the national macro culture is a challenge that will take years to change, meanwhile expatriates need to understand that punctuality and efficiency are not strong points within the Tanzanians culture, because he cannot think past the present moment.

Job Satisfaction

The respondents were then asked to identify four characteristics that were important to them to achieve job satisfaction. Expatriate comments were as follows: Achievement; Positive work environment; Continuous improvement; Innovation; Sense of belonging; Trust within the organization; Performance Challenge; Accountability; Responsibility. Tanzanians' comments were as follows: Recognition of work; Ability to grow professionally; Equality as a team player; Equality in decision making process; Critical analysis of tasks assigned; Meeting deadlines; Feedback on performance; Empowering employee with employment skills through training; Respect. There were some common traits such as Strong Leadership; Motivation; Relationships; Team spirit; Futuristic growth of organization. It is interesting to observe that the common traits are key aspects of job satisfaction. Yet due to such differing perceptions of each other, their common strengths seem to diminish. The other criteria for job satisfaction for the Tanzanian, seems to relate to his own achievements and growth, whereas for the expatriate it relates to professionalism within the organization. It should also be noted that in Tanzania, if a position is filled by an expatriate, then he gets an expatriate package with a high salary in a foreign currency. If the same position is filled by a Tanzanian, then he gets a lower salary in the local currency, with half the benefits. If we consider the reasons seriously, it is no wonder that the Tanzanian is looking for equality and continual self improvement as job satisfaction, as it is his only ladder for progress. The blind spot from these comments is clear: Job satisfaction has a different meaning for the expat and the Tanzanian. The recommendations are equally clear. There is a need for continuous performance appraisals and need do not discriminate managers in pay just because they are Tanzanian. There is need to recognize each individualities capabilities and treat accordingly as well as inclusivity in the decision making process, at all levels. Ensure there is no discrimination in the organization and be sensitive to the fact that the employee's needs are those of basic day to day survival, and he has a large extended family to support.

CONCLUSION

This research showed that expatriates coming to Tanzania could not reproduce the same organizational culture from the head office, but had to manipulate and modify it according to the cultural limitations, values and expectations of the host country and its society. This process of change is not easy, but the transition could have been easier if the expatriates had had some cultural consultation before coming to Tanzania. The blending of cultures brings with them values and beliefs that are different from the values and beliefs of the society and the

national culture, usually, causing individuals to undergo a process of cultural dynamics as they try and juggle within themselves, what values are right or wrong, compared to the values instilled within them. The research showed that both the Tanzanians and the expatriate due to lack of cultural awareness underwent this process of cultural dynamics as they both had different expectations of each other and from the organizations culture. Investing in a foreign country is easy, it just requires money, but making a success of the venture requires a cultural synergy within the visible and invisible layers of the organization's micro culture and the national macro culture. Expatriates coming to Tanzania found they were unprepared for understanding the invisible layers of the micro-culture. The research highlighted some of the inter-cultural challenges (visible and invisible) faced by both the expatriates and the Tanzanians working together and emphasized that whilst neither was at fault, a better understanding of each others culture would have helped eliminate a lot of frustration, and enabled a better sociable working relationship between the two cultures. In future research it is hoped that a "Do" and "Don't" set of recommendation emerges from our finding. There is no magical solution to Bridging the Gap between the inter cultural challenges that exist within the corporate environment of Tanzania. It is a change process that will take a long time, but as more Tanzanians become professionals and work in foreign institutions outside their home country, they will bring back to the country the western management exposure, and hybridize it with their own management culture to create the right cultural dynamics, necessary for the Organization to survive. It will take a Tanzanian to be the ultimate long term change process agent, not the expatriate, as Tanzanians understand the limitations of their culture the best. Expatriates are only the initial agents that can help start the process of bridging the gap.

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PRESERVING COMPETITIVE CAPACITY DURING RECESSION TIMES

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ABSTRACT

The paper aims at getting a better understanding of the competitive standings of the Croatian industry, especially those industries supposed to have developed strategic partnerships and clusters, such as the wood, the furniture and the construction industry. During 2009, all three showed deteriorating performance. We start by presenting general economic indicators, and, after providing a brief theoretical background, present data and observation on the performance of specific industries and firms. We conclude that prospects of future recovery will depend on maintaining competitiveness in spite of weak performance. Clustering, at least to the extent that it was developed, did not prevent weak performance.

INTRODUCTION - GENERAL ECONOMIC SETTINGS

Croatia is a small South-East European state of 4.5 million inhabitants and an accession candidate to the European Union. A small national market implies that many Croatian firms and industries are bound to export in order to grow and achieve competitiveness. International competitiveness is also important for maintaining competitiveness on a national market, which, according to the WTO, is an open economy with low trade barriers.

The economic performance of the Croatian economy has been satisfactory during most of the past 2000-2010 decade. GDP growth remained stable (average 4.6 growth rate in the 2000-2009 period), as Croatia, chose to integrate its economic with the European by eliminating trade barriers. Many of the companies that had undergone restructuring in order to achieve or maintain competitiveness in exporting to foreign markets seemed to prosper. A general feeling of prosperity that accompanied rising wages and employment promoted spending in all sectors (households, industry and government). However, it also contributed to a rising external debt, as the national trade balance stayed negative during the entire period, signaling the low competitiveness of Croatian manufacturers (real effective exchange rate for the national currency against the Euro remained stable since 2005). The negative side of balance of payments was somewhat alleviated by the tourist industry.

Table 1: Croatia – basic indicators of economic performance (2004-2009)

	2004	2005	2006	2007	2008	2009
GDP growth (% yearly change) IMF	4.2	4.2	4.7	5.5	2.4	-5.2
Employment (% yearly change)*	1.4	-0.5	4.2	4.5	3.3	-2.7
Industrial production (% yearly change)*	3.7	5.1	4.5	4.9	1.2	0.8
Industrial employment (% yearly change)*	-1.9	1.4	-0.1	0.4	-1.9	-0.3
Exports of goods and services (% of GDP)	43.5	42.8	43.5	42.8	42.0	36.2
Imports of goods and services (% of GDP)	49.4	48.9	50.2	50.2	50.1	41.1
Current account (% of GDP)	-4.4	-5.5	-6.9	-7.6	-9.3	-6.1
External debt (% of GDP)	70.0	72.1	74.9	76.9	82.6	93.3

Source: WT/TPR/S/227 (IMF 2009); * CBS, Monthly Statistical Report, April 2010

Oscillating employment in manufacturing, when manufacturing is compared to other sectors, indicates restructuring. Restructuring did increase labor productivity but did not succeed in undoing the general trend of deteriorating competitiveness. Another sign that Exports have slightly fallen to 69.4% of total merchandize exports from 71.5% in 2003. Contrary to manufacturing, the construction industry was showing continuous growth, however at a slower pace compared to financial intermediation (banking), trade and tourism.

Comparing economic activity by sectors in the period 2005-2009, it can be seen that after 4 years of pronounced positive trends, 2009 has been the year of radical changes. Still, during 2009, Croatia was reluctant to admit the extent of the world economic crises, in part because of its tourist industry, and in part due to the presidential elections' at the turn of the year. At the beginning of 2010, the crisis hit hard into the real sector of Croatia. At the moment, the highest concern of national authorities is a slump of the real sector, which is accompanied by rising unemployment and risks of fiscal sustainability.

THEORETICAL BACKGROUND

Economic theory suggests that the size of a firm affects competitiveness and financial performance. Tirole (1995) offers three sets of reasons why firms expand activities: first, by expanding (internalizing transactions) firms are able to exercise market power and escape anti-trust regulation; second, expanding might be a way to combine the necessary "bundle of inputs" that generates minimum (or competitive) production costs; and third, size protects the firm from being exposed to hold-up problems. The issue of growth and competitiveness is further clarified by literature dealing with monopolies and antitrust. Martin explains that cost disadvantage of sub-minimum-efficient-scale (1988, 161) might be a factor keeping a firm out of the market. Similarly, a product differentiation strategy of incumbent firms also limits market access to new entrants. Along the same line of reasoning on market foreclosure, Tirole (1995, 195-196) raises the question "whether the nonintegrated structure can realize the same outcome though a contract"; his answer is that reliable long-term contracts "that specify a penalty for breach" also established hierarchies.

Best (2000) explains hierarchies that evolve based on mutual coordination and asymmetric market power. Best presents three successful models of enterprise networks: the Italian industrial district, the Japanese production system and the Silicon Valley model. His descriptions of historical evolutions of inter-firm arrangements, accompanied by theoretical discourse, provide useful insights for understanding competitiveness. All three were able to develop products competitive on global markets. During the eighties, the regions where these business models evolved were among the richest and fastest growing in the world. The phenomenon of business networking soon became known as clustering. Porter (1998) specified important clusters features: simultaneous existence of competitiveness and cooperation, economies of scale and scope achieved through value chains stretching beyond single company boundaries and international presence, a need to expand to a critical size in order to achieve competitiveness, often in addition to some regional (spatial) concentration of entrepreneurial activities and critical factor endowments. Cooperative arrangements with partners in possession of complementary resources also create a business system that were supposed to be flexible adaptable to dynamic conditions in the business environment, and therefore suitable for adjusting capacity in conformance to specific demands.

However, in spite of the popularity of the concept, recent research found that transition economies, including the EU10 and Croatia, were often slow to support cluster initiatives. Transition countries have a common history of government centralization that focused the attention of economic policy on issues of macro-level stability, currency rates and deregulation programs, rather than on clusters and competitiveness. However, part of this macroeconomic orientation can be attributed to international advisors providing guidance and financing during the period of transition. Ketels, Lindqvist and Sölvell (2006) explored cluster development in transition economies by using a survey that allowed them to compare cluster initiatives in developed, transitional and developing economies. Their study confirms that four factors influence specific patterns of cluster development among countries: 1) policy setting (which in transition economies are promoted sometimes by governments and international donors, but often initiated by the business sector), 2) industry profile (compared to developing countries, transition countries demonstrated a higher variety of industrial sectors involved in

cluster initiatives), 3) actors (reflecting the skills and motivation of persons in charge of initiating and operating clusters) and 4) the age of the cluster (where they found that generally clusters in transition economy tended to be smaller since they were established at a later date).

The idea of institutional setting and path-dependency influencing organizational arrangements has been a constant. For example, observations on the evolution of managerial practices in post WWII period imply that size and growth are important for the international competitiveness of national firms and industries. According to Chandler (1990), the “collective history” of Great Britain’s industrial decline occurred partly because Britain, compared to the USA and Germany, relied more on “personal management” and had fewer enterprises managed through “managerial hierarchies”. Consequently, the British failed to invest in capital-intensive industries and were not able to achieve comparative economies of scale.

Kumar, Rajan and Zingales (2001), demonstrated that country specific factors affect firm size. However, it is fair to say that the same authors (1999) also observed that 63% of the total variation in firm size could be explained by industry sector effects, while only 2.5 % came from country specific effects. At 2.5% country does not appear to be a substantial factor affecting firm size. Still, they found that firms in larger national markets tend to be bigger. A possible implication regarding the competitiveness of Croatian firms would be that, even when there is no crisis, firms from smaller economies are likely to enter foreign market at a size disadvantage. The increase in size or the development of (national) clusters will therefore demand a stable presence in foreign markets during certain (relatively long) period of time.

In this same path-dependence framework, Aoki and Jackson (2009), while studying the contemporary Japanese enterprise system, find that a variety of corporate governance-organizational architecture models are evolving alongside. Despite general trends in the Japanese economy (lowering dependence on main bank financing, reduced levels of cross-shareholding, increased ownership shares by foreign institutional investors, increasing labor force mobility as opposed to life-time employment) they identified three distinct organizational patterns. Another point that stands out in the rezoning is the notion that pre-existing “tacit elements”, related to characteristics of individual firms and industries (technology, age-maturity, among others), might be influencing performance as well as governance model-architecture. In essence they confirm that organizational arrangements are firm and industry specific.

The last item in this theoretical introduction involves specific industry studies. They too stress the importance on size and of inter-firm cooperation. Nikas, Poulymenakou, Kriaris (2007) investigate the technological preconditions (informational infrastructure) that make cooperative arrangements more likely. They confirm that firm size a factor that facilitates the absorption of the technology needed to manage a collaborative project. Similarly, the final report of the Sectoral e-Business Watch study on the furniture industry (September 2008), finds the prevalence of small companies in the wood industry to be one of the factors limiting business integration. The study also points out to the fact that European furniture firms have a significant export orientation and that there is a concentration process going on in the industry (p. 24, 30). Both observations might be interpreted as confirmations that European firms are exploring strategies that will increase size effects.

EMPIRICAL RESEARCH

The theoretical session introduced some questions relevant to the shaping of this study and the understanding of the competitive prospects of the Croatian industry. Existing research confirms the importance of firm size in achieving production efficiency and competitiveness. They also confirm inter-firm cooperation as an alternative organizational model capable of providing the same advantages. Finally, it stresses the importance of country’s specific factors.

We tried to provide some insight on the state of selected Croatian industries by using three sources of data, each presented under a separate sub-heading:

1. Press articles, reports and studies relating to Croatian wood production and construction industries,
2. Official statistics demonstrating levels of output and employment,
3. Company data drawn from financial reports of companies listed on the Zagreb Stock Exchange.
- 4.

Developments in the wood products manufacturing and the construction industries in Croatia

The wood products and furniture industry and the construction industry are among the hardest hit sectors by the present crisis. Both are industries of significant national interest, with substantial export potential and with experience in inter-firm cooperation. Consequently, they provide an opportunity to test some pre-standing theoretical expectation concerning clusters as flexible business (organizational) models, since present world financial crisis has created an experimental setting for evaluating not only theoretical concepts, but also economic policy.

Croatia was relatively late in adopting measures that would promote cluster initiatives. A rather vague, early mention of cluster in a national level document was a set of 55 policy recommendations of the National Competitiveness Council in January 2004. In the summer of 2004, the Croatian Government adopted the Strategy for the development of wood products industry (including pulp and paper and furniture). Among other measures, this Strategy advocated promoting cooperative arrangements among firms in the sector and the formation of consortia, clusters and grouping of firms along core business, in order to stimulate exports of wood products (Samaržija, 2008)

Cooperation is a tradition in the building and construction industry. However, contrary to the wood product manufacturing industry, by 2008, there were no formal clusters in the Croatian construction industry. Here the Croatian government has not played a role of initiating cluster formation in the construction industry, but still, Government orders represented an important source of demand. By 2009 the Croatian building and construction, employed over 106,000 employees in over 19,000 registered entities at the end of 2008, in the past ten year period the sector has achieved a growth index of almost 200 (compared to 127 in the wood and furniture industry) and the total value of construction contracts carried out abroad represented a large percentage of total earnings of the sector. During the end of 2009, much attention was given in a press to a consortium of Croatian construction companies participating in public bidding to win the project for the construction of high-ways in Montenegro. Considerable debate evolved whether the Croatian government guarantee for private companies.

In this critical period, the most important capability of a firm seems to be flexibility. Clusters and cooperative arrangements among firms in general, are supposed ability to adapt to changing markets conditions. However, according to WEF Global competitiveness indicators 2008/09, Croatia ranks 114 on the item "State of cluster development". This is a ranking far below its Global competitiveness index (61 out of 134 ranked countries) for the same year. This brings us to the question on what should be the role of the Croatian state in the present recession? According to literature consulted, it is reasonable to assume that: a) firm size is country specific b) enterprise networks need time to develop their economic potential and c) collaborative inter-firm arrangements can compensate disadvantages of size. Therefore, the main question is: should the Croatian state establish temporary support measures and take action that will sustain existing network? The rationale for a positive answer would be that a "pause" in the development process might lead to a worsening competitive position where recovery becomes harder, if not impossible. A related question stretching beyond the recession period is: should governments of small countries play a more pronounced role in promoting industry growth, compared to governments of larger countries?

Comparative indicators of economic activity

Table 2 shows general trends and allows for comparison between wood production, furniture and construction industries. The table includes a pre-recession year, economic slow down during 2007-2008, and the recession year of 2009.

Table 2: Economic activity indicators for manufacturing and construction (2006-2010)

Indicator	2007/06	2008/07	2009/08	Feb10/ Feb 09*	Comments on crises effects
Total output/volume of industrial production	104.9	101.2	90.8	98.6	Industrial production is still decreasing but at a slower pace than during 2009
Output of intermediate products**	107.7	106.8	95.0	76.1	Contrary to the total industry trend, the production of intermediate products continued fall even steeper after 12/2009

Manufacturing of wood products output	106.9	101.6	96.5	79.8	The falling output trend of intermediary products is reflected in the wood industry
Manufacturing of furniture output	119.2.	95.2	83.7	95.2	Even though a fall of output is evident in 2008, the falling trend slowed down at beginning of 2010
Building and construction output*	102.4	111.8	93.5	71.7	2008 was a high growth period; 2009 the trend worse than average
Total employment	100.4	98.1	90,7	91.8	Employment has started falling even before the crises hit and is still on the fall
Employment in legal entities	104.7	103.3	97.3	94.7	Legal entities, being larger than crafts, were steadier in maintaining employment

Source: CBS (* Last available entry, except construction – Jan/average 2009; **Capital goods and durable consumer goods showed substantially higher growth rates during the same period (126.9/ 129.9/110.4/111.2 and 124.8/116.2/-94.4/115.5 respectively))

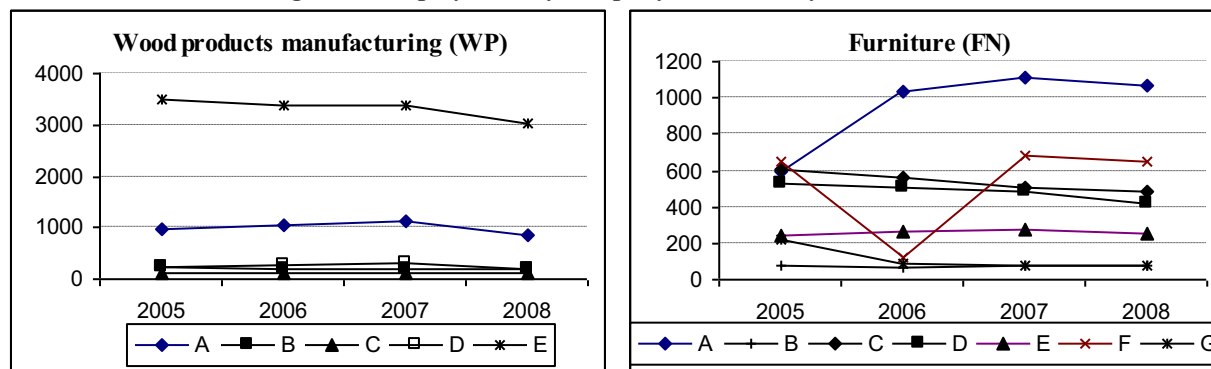
By comparing changes in output with changes in employment, it is possible to observe that employment in the industry, as a total (legal entities and crafts), fell even in the years with increasing output. Performance increased until 2009, even though the highest growth rates were achieved during 2007. A positive effect of falling employment has been an increase in labor productivity, which might be taken as a sign that firms tried to maintain cost competitiveness. The table also shows that legal entities, which are larger by definition, were able to maintain a larger share of employees, even though they too demonstrated a contraction of employment. Comparison between the wood products manufacturing, the furniture industry and the construction industry, indicates that employment, as well as output, fell slower in the construction industry.

Company data analysis

The second part of our analysis used company data extracted from publicly available financial statements (mandatory for companies listed on the Zagreb Stock Exchange). The sample was composed to include only those companies that had complete records for the 2005-2008 periods. Companies were classified into industry sectors by two criteria: formal statistical classification of industrial activity and description of main product range. Our final sample constituted of 21 companies, 9 pertaining to the building and construction industry, 5 to wood products manufacturing and 7 to the furniture industry.

Again, changes in employment were compared to those in operating income. The intention was to investigate company specific patterns of changes in business activity and spot differences between industries. Figures 1 and 2 spot differences between firms and industries.

Figure 1: Employment by company and industry 2005-2008



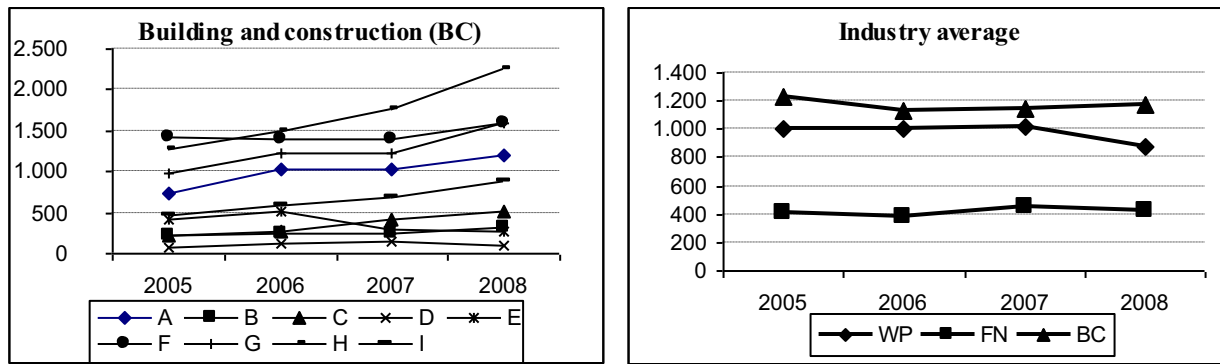
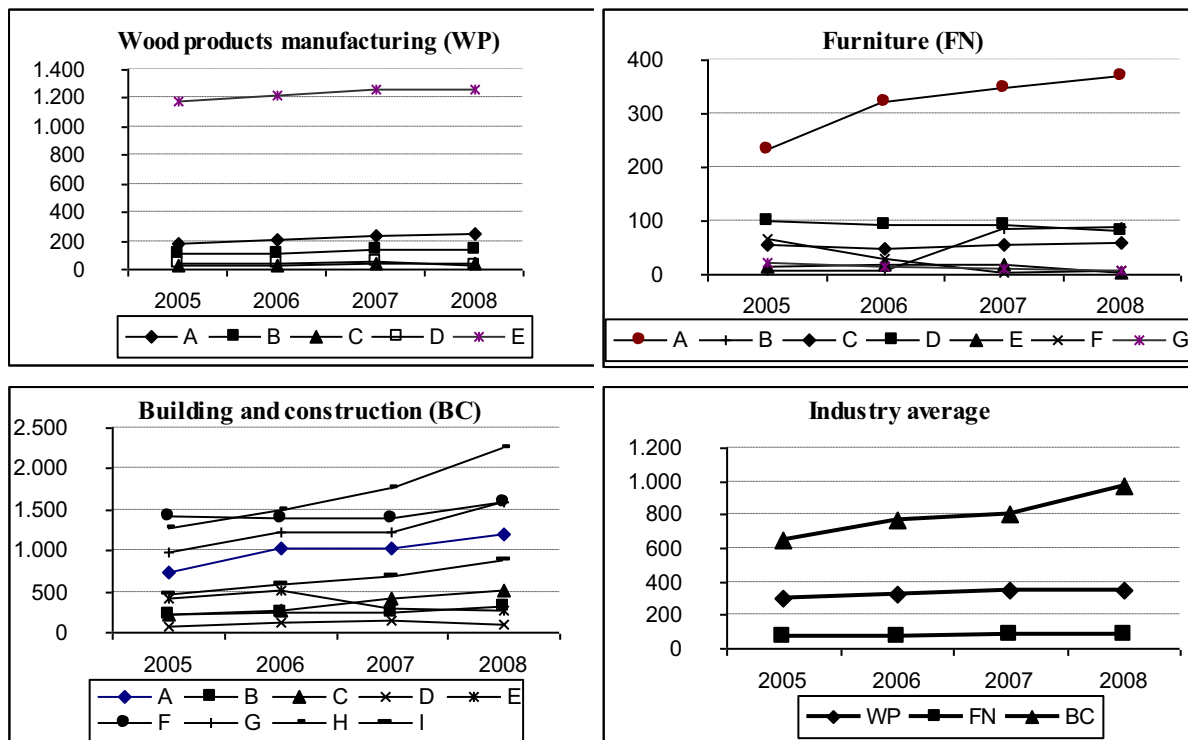


Figure 2: Operating income by company and industry 2005-2008 (in million kunas)



Some common features may be observed. Larger companies demonstrated higher growth; smaller companies tended to stagnate even in the period of general economic growth, independent of industry sector. All three sectors increased productivity during the observed period. On average, larger companies were more successful in increasing labor productivity (their increase in operating incomes was achieved with little or no increases of employment).

Company data for 2009 was not fully accessible, and sometimes unreliable. For reasons of missing reports, different interpretation of data requirements, we did not feel confident in including 2009 data into 2005-2008 data series. Observation made from company financial reports for 2009 are presented in Table 3. Problems with reporting suggest reluctance to provide public information. However, for 2009, there has been change in the requirements on public company disclosure for Croatian companies, so it is a possible reason of incomplete reposting. We also noticed that some companies declined responsibility for provided information by calling upon short dead-lines (April 30, 2010). Since public company reports also include management comments, the ones we found relevant to reporting problems are provided in rows 3 and 4. Row 5 represents a very rough estimate of the present complexity of companies involved in the industries. However, even those companies that are officially not holding companies tend to operate through profit centers.

Table 3: Observations on financial statements for 2009 and management comments

Number of...	Wood	Furniture	Construction
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		(5)*	(7)*	(9)*
1.	Missing or incomplete reports by deadline	3 out of 5	4 out of 7	1 out of 9
2.	Reports were figures published in 2009 do not correspond to figures published in 2008	-	2 out of 3	2 out of 8
3.	Managers referring to crises as explanation of falling activity	-	-	1 out of 8
4	Managers declining responsibility (stating than some 2009 accounting is still under way	-	-	2
5.	Number of firms with subsidiaries (holding companies)	1 out of 3	2 out of 3	5 out of 8

*Numbers in parenthesis represent number of firms with complete data for 2005-2008.

According to the Croatian media, performance is still low in all three industries and further restructuring is being announced. However, even during crises, some (very few) firms have maintained positive financial results.

CONCLUSION

Comparison of employment and output for the three industries - wood products manufacturing, furniture and building and construction -, clearly show that the world crises 2008/09 had an impact on Croatian companies. Unfortunately, we could not compare the 2009 company level of activities with previous years, which has been a setback in our research. However, the financial reports and managerial comments that were available to us provide at least some direction for further research on strategic alternatives available to Croatian companies, including the credibility of developing/maintaining cluster arrangements.

In spite of the fact that cluster creation in the wood product industries of Croatia was encouraged by the Government, there is no evidence that clustering prevented the decline in employment and revenues. One of the reasons (based on Aoki and Jackson), might be that Croatian clusters had not had enough time to grow stronger during the period of prosperity. Additional study is definitely needed to confirm such theory. Some direction for extending the present research might be to take a deeper look into company financial indicators, such as receivables' and liabilities, as well as into share of exports in operating income. That way we would achieve a better understanding of strategic alternatives available to firms in distress. At the present, to prevent further slipping of competitiveness, it is important that the Croatian Government at least tries to preserve the competitive presence of Croatian industries on foreign markets. Once demand recovers, these sectors, once successful, can reestablish their competitive edge and rebuild scale.

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FACTORS INFLUENCING JOB SATISFACTION AND MOTIVATION AMONG ACADEMIC EMPLOYEES IN A POST-MERGED SOUTH AFRICAN UNIVERSITY

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ABSTRACT

The higher education transformation (through the mergers) in South Africa brought positive and negative effects to the sector. Thus, the purpose of this study was to examine the effects of university mergers on the job satisfaction and motivation of academic employees in one of the urban South African Universities. The study examined the characteristics contributing to university academics' job satisfaction and motivation in a merged institution. The investigation focused on the job satisfaction and motivation for the academics in one faculty. The results of the study showed that job satisfaction and motivation differences do exist between employees employed before the merger and those employed after the merger, between races.

INTRODUCTION

The birth of democracy in South Africa was followed by many declarations from the new government. One of the declarations was the need for the total transformation of the education system in the country. In the late 1990s, the then Minister of Education announced that universities would have to merge. The most eye opening pronouncement was the conversion of technikons to universities of technology. Technikons were merged and their status converted to universities of technology as the minister instructed.

This study was undertaken at the university technology which resulted from the merger of technikons which in close vicinity with each other, thus introducing numerous challenges. Amid many challenges which the institution under study faced, this study concentrated on the psychological implications brought by the merger on academic staff. The challenges included among others the relocation of staff to other campuses, restructuring of the organisation and the creation of a common institutional culture. Undeniably, the above mentioned challenges had an impact on the job satisfaction and motivation of academic employees at this university.

According to Schulze (2006) academics have often researched the job satisfaction of others. However, electronic data bases reveal that their own job satisfaction has less often been investigated, especially in South Africa. Using 'job satisfaction' and 'Higher Education' as key words, the ISAP-Index to South African periodicals recorded eight matches only for publications between 1987 and 2004 (Schulze, 2006). These assertions also concur with the studies done by earlier researchers (Arnolds, Boshoff, 2004; Curri, 2002; Hay, Fourie, 2004; Viljoen, Rothmans, 2002).

Institutions of higher learning in South Africa have in the past been shielded from structural changes and immense transformations (Arnolds, Boshoff, 2004). These historical conditions gave institutions autonomy to unilaterally decide on many things. The unanticipated call to merge institutions brought pressure on both staff and management. According to Arnolds and Boshoff (2004) these pressures had an impact on the reasonably stable workforce and their satisfaction and motivation.

LITERATURE REVIEW

The literature shows extensive research about studies on job satisfaction and motivation of academic employees in the developed countries. As stated earlier, the need for studies in this psychologically important area is essential in South Africa. In educational settings researchers principally use Herzberg's motivational theory because of the distinctions it draws between intrinsic and extrinsic factors (De Beer, 1987; Prinsloo, 1996). According to the theory, the differentiation between intrinsic and extrinsic factors is founded on main human characteristics, the ability to achieve and experience psychological growth (Gawel, 1997).

Arnolds and Boshoff (2004) mentioned that although universities operate differently from business firms, it can be safely predicted that the advantages and disadvantages of mergers may be similar. University mergers in South Africa resulted in fewer but large comprehensive higher education institutions with multi-campuses (Harman, Meek, 2002). In the view of Botha (2001) the strategic and competitive advantage of merged institutions is an improvement in management skills by means of a replacement of inefficient managers by capable staff. The other advantage of higher education mergers is the development of human capacity by sharing of appropriate resources and later assisting the state by generating funds through external research projects since institutions would have academics capable of undertaking research (Ntshoe, 2003).

To these, Lang (2002) adds that equity also plays a role since the state wants to bridge the gap between black and white brought by history, culture and geography. However, Elliot (2005) states that academic merit is more important than equity. In addition, education is crucial in the transformation of the country and should be redesigned in such a way that it assists economic strategy formulations (Alexander, 2000). Alexander (2000) argues that every country needs a highly skilled and educated workforce for global competitiveness and that this is more important than equity. In the case of the institution where the study took place, one of the aims for the merger was to rationalise academic programmes between the merging partners by minimising duplication and maximising optimal use of resources (Tyobeka, Schoeman, 2007). In light of the above, there is a need assess the influence that institutional changes had on employee job satisfaction and motivation (Arnolds, Boshoff, 2004).

Chen et al. (2005:375) argues that a merger between institutions and the conversion of their status pose increased administrative responsibilities, stress, workload and huge challenges for academics. In view of this, they emphasise the need for effective training programs for academic leadership to meet the challenges. Additionally, the insufficient supply of doctoral graduates to fill senior positions immensely exacerbates the leadership problem. Therefore the upgrading of former technikons to universities of technology in South Africa demands devoted and increased professional systems to assist institutional managers (Chen et al., 2005:376).

The following hypotheses were tested.

H_0 : No relationship exists between job satisfaction/motivation and post-merger experience amongst academics.

H_1 : A relationship exists between job satisfaction/motivation and post-merger experience amongst academics.

METHOD

The target population for the study was all academic employees of one faculty in the institution where the study took place. The sampling was carried out using the staff list and the strategic guide (a document showing the location of departments and numbers of academics in the faculty) which was provided by the office of the executive dean. To ensure that all academic staff members knew of the study, e-mails were sent to all departmental secretaries in the faculty and a request was made to secretaries to forward the e-mail to their academic staff members. The above documents (i.e. staff list and strategic guide) proved valuable to the research setting and the chosen research approach.

Sample

The whole frame sampling method was used; therefore all academics in the faculty were included. Questionnaires were self-administered by the researcher to all academics the chosen faculty. Out of 246 questionnaires sent, 154 were returned for analysis. This gave the response rate of 63%.

To be included in the study, respondents had to meet the following criteria. Academics had to:

- be engaged in either lecturing or research work in the faculty;

- have been previously working at one of the pre-merged institutions and currently working for the newly merged institutions (test group);
 - have been appointed by the newly merged institutions after merger (control group).
- Demographic variables from which data was obtained were the following:
age, gender, race, designation and years of service.

Questionnaire

The work satisfaction and motivation questionnaire developed by De Beer (1987) was used to measure job satisfaction and motivation. The scale consists of 37 questions measuring work content, payment, promotion, recognition, working conditions, benefits and leadership.

De Beer (1987) carried out an analysis to establish the inter-item consistency of the work satisfaction and motivation questionnaire. The reliability coefficients ranging from $r = 0.77$ to $r = 0.90$ were recorded. The study by Prinsloo (1996) also recorded similar results. The questionnaire has 43 positively stated statements categorised into nine sub-categories taken from Herzberg's hygiene and motivational factors. Hill (1986) also recognised the appropriateness of Herzberg's two-factor theory in assessing faculty job satisfaction in higher education.

Results and Discussion

Because this study was quantitative, use of statistical tools, tables and graphs were employed (Corbetta, 2003:32). The use of tables and graphs assisted in making the results succinct, compact and economical. Data was organised by transforming it from questionnaires into a rectangular computer matrix using the SAS-statistical package.

Table 1 Descriptive statistics for the job satisfaction/motivation among races (pre-merger respondents)

Race	N	Variable	N	Mean	Std Dev
White	19	Job satisfaction/motivation	19	167	19.54
Coloured	5	Job satisfaction/motivation	5	175.6	11.48
African	27	Job satisfaction/motivation	27	164.07	21.54

According to the descriptive statistics presented in table 1 above, the mean for job satisfaction/motivation of White respondents was 167 with the standard deviation 19.52. For the Coloured respondents, job satisfaction/motivation mean was 175.6 with a standard deviation of 11.48. The job satisfaction/motivation for the African respondents was 164.07 with a standard deviation of 21.54.

Table 2 Descriptive statistics for the job satisfaction/motivation (non-merger respondents)

Race	N	Variable	N	Mean	Std Dev
White	57	Job satisfaction/motivation	57	157.14	19.79
Indian	7	Job satisfaction/motivation	7	126.71	42.67
African	39	Job satisfaction/motivation	39	161.08	23.58

The mean for the job satisfaction/motivation of White respondents (non-merger) was 157.14 with the standard deviation 19.79. For the Indian respondents (non-merger) the job satisfaction/motivation mean was 126.71 with a standard deviation of 42.67. The job satisfaction/motivation for the African respondents (non-merger) was 161.08 with a standard deviation of 23.58.

The tables above (tables 1 & 2) show some differences in the job satisfaction/motivation between pre-merger and non-merger respondents. The differences are tested for significance in the following sections.

Table 3 ANCOVA of job satisfaction/motivation against experience of merger and gender

Source	DF	Mean Square	F Value	p-value
Experience of merger	1. 151	2973.250	5.60	0.0192*
Gender	1. 151	962.347	1.81	0.1800

According to 3 above gender is not significantly related to job satisfaction/motivation. Experience of merger is significantly related to job satisfaction/motivation since the p-value (0.0192) is smaller than 0.05.

Table 4 ANCOVA of job satisfaction/motivation against experience of merger and race

Source	DF	Mean Square	F Value	p-value
Experience of merger	1. 149	1174.11923	2.37	0.1258
Race	3. 149	2423.7738	4.89	0.0028*

According to table 4 above, job satisfaction/motivation is significantly related to race since the p-value (0.0028) is smaller than 0.05. Table 4 depicts experience of merger as not significantly related to job satisfaction/motivation since the p-value (0.1258) is greater than 0.05. The results in table 4 about race being significantly related to job satisfaction/motivation concur with the results in the descriptive statistics tables 1 and 2. According to the results in table 4, the confounding variable race has an effect on job satisfaction/motivation. As it was also seen in tables 1 and 2, the job satisfaction/motivation means for races studied were different.

On the basis of these findings, the null hypothesis (H_0) is thereby rejected. Therefore a relationship exists between post-merger experience and level of job satisfaction/motivation amongst academic employees. The means show that white respondents are less satisfied than their black counterparts. Hay and Fourie (2002) contend that perceptions of unfairness, symptoms of depression, stress, demoralisation and unwillingness to do anything more than the minimum requirement is often the case following a merger. In the case of South African higher education transformation where equity is on the agenda of government, the results found in this study are logical. Mothata (2007) therefore concedes that the management of the people aspect of a merger is a major challenge and the psychological impact imposed on academics by this complex exercise should not be underestimated. The beginning of any change program brings with it policy transformations, new co-workers, job transfers and others. Psychologically these may lead to depression and a loss of confidence and more anxiety.

RECOMMENDATIONS

The study presented clear results that mergers brought serious implications for academics, the core employees in the operations of higher education institutions. Admittedly, both administrators and academics at higher education institutions tend to agree that organisational commitment, motivation and job satisfaction are imperative to attain institutional goals. Since psychological wellbeing of academics is the cornerstone of a successful university, the researcher outlined the following recommendations for consideration by university administrators and researchers:

- To verify the authenticity of the perceived statements by labour unions, that “...hundreds of top academics resigned” (NUTESA, 2009) because of dissatisfaction, the researcher recommend that “exit interviews” be conducted to determine the real causes of high turnover (Harris, 2010). Possibly, these exit interviews may further assist management to develop retention strategies.
- The above recommendation may further assist in controlling undesirable turnover which shift management’s attention from the real goals of the institution (Buck, Watson, 2002).

LIMITATIONS

To understand the rarely researched psychological implications of mergers on academic employees in a merged university is an extreme challenge. In South African higher education, there has been little research dealing with the subjects of motivation and job satisfaction either theoretically or empirically. Therefore some limitations should be clarified. The researcher identified the following points as limitations of the current study:

- A blatant limitation of this study is the fact that the study only one was considered as the target population. Therefore the results of this study cannot be inferred to other faculties or other institutions.
- Among many implications of a merger, the study only investigated motivation and job satisfaction in a merged university and the researcher relied on the literature to assume the levels of motivation and job satisfaction before merger. Therefore inferences cannot be made to other effects which might be brought about by mergers.

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DOING BUSINESS IN THE 21st CENTURY: RECOGNISING THE PHILOSOPHICAL DANGERS

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ABSTRACT

This paper argues that the 20th Century business model is unsustainable but continues to affect the way business decisions are being made in the 21st Century. It argues that a paradigm shift is necessary if the natural world is to survive in an age when technology has provided humankind with the ability to make decisions that can result in huge changes to our ecosystems, either intentionally or by accident. It argues that those of us who are currently teaching in business schools have a great responsibility to aid the required shift in the business paradigm.

INTRODUCTION

This paper provides a brief account of developments in Western thinking that have led to the general acceptance of current business practices and global trade. It is critical of the current position we are in. It suggests that business education must be used to address growing problems in society in order to avoid threatened global catastrophes.

ANCIENT GREECE

Although there were societies and commerce before the rise of the Greek states, this account starts with their rise around 500 BC because this marks the birthplace of Western democracy (Findley, 1985). Probably the three most famous and influential Greek thinkers were: Socrates, Plato and Aristotle. They all lived around 400 BC. They produced philosophies on the meaning of life, and advice on how the 'good life' might be lived. They encouraged others to seek education and consider how to live a good life. These three philosophers have had a large effect on the development of Western societies and have influenced how we live our lives today. Here some ideas of Aristotle are examined.

Aristotle argued that happiness is the desired end goal of all humans because of their rational nature. He argued that the final goal to which human aspire, is the one that is chosen as an end in itself. It does not serve as a means to another end. Humans choose happiness for itself and never for any other reason. Other goals may contribute to happiness but they are instrumental goals only. Wealth creation is such a goal, but it may not always contribute to happiness. If one believes that "good ethics is good business", this aligns the creation of wealth with 'good' behaviour. However, the position is vulnerable because if one finds that good ethics is impeding wealth creation, poor ethics may be excused (Kelly & Walker, 2008).

According to Aristotle, the problem with wealth accumulation as an end in itself is that there are no limits. Having sufficient money to purchase this or that good, or pay for a particular project, will not bring satisfaction. If one is interested only in maximising one's wealth, one cannot know when to be satisfied (Duska, 2005).

The ancient Greeks were, for a time, militarily powerful and able to defend their developing way of life. However, life was not ideal for all because women were thought to be inferior to men and slavery was an accepted practice. With the rise of the even more militarily powerful Romans, the Greek culture was absorbed

and spread around the Western world. However, with the passage of time, and decline in power of the Romans, much of the culture that had evolved was discarded as the power of the Christian Church increased.

The Academy where Plato had taught, survived all other schools and persisted as an island of paganism, for two centuries after the conversion of the Roman Empire to Christianity. At last in A.D. 529, it was closed by Justian because of his religious bigotry and the Dark Ages began (Russell, 1946, p. 78).

OUT OF THE ‘DARK AGES’

The period of time between the fall of the Roman Empire and the Renaissance is sometimes referred to as “the dark ages” that is, “A term deployed in the 17th and 18th centuries to indicate the intellectual darkness which was believed to have descended on Europe with the ending of the Roman empire until new light was provided by the Renaissance” (Cannon, 2009). In this time the Church in society conditioned individuals to accept life as it came, to enjoy the good times and endure the bad knowing that a much better life could be earned in the afterlife. This period of willingness to accept whatever life bestowed lasted for over 1,000 years.

In the 16th Century some people began to question the teachings of the Church and to suggest that humans might be able to use the power of reason to take more control over the environment in which they lived. They did not necessarily deny God, but if God did exist they believed (s)he had given the power of reason to humankind so that it could improve its environment. Educated thinkers (see below) suggested that the ancient civilizations had provided their citizens with better living conditions than were available to people living throughout the dark ages. They wished to liberate people from the power of the Church, and the aristocrats, and allow them to increase their personal creative abilities in a more ‘free’ environment. The Renaissance was born:

This celebration of human capacity, though it was mixed in the Renaissance with elements of gloom and superstition (witchcraft trials flourished in this period as they never had during the Middle Ages), was to bestow a powerful legacy on Europeans. The goal of Renaissance humanists was to recapture some of the pride, breadth of spirit, and creativity of the ancient Greeks and Romans, to replicate their successes and go beyond them (Brians, 2000).

The major drivers of the new thinking in the Renaissance included the early scientists Galileo (1564-1642), Bacon (1561-1626) and Newton (1642-1727). Galileo championed the Copernicus cause and argued that the sun, rather than the earth, was at the centre of the universe. For this ‘crime’ he lived the last 10 years of his life under house arrest at the behest of the Church. Bacon championed the use of “deductive methodologies” to reveal scientific truths that could be generalised. Newton, according to popular tale, worked out his ‘laws of gravity’ after witnessing an apple fall to the ground in his orchard.

At a more ‘basic’ philosophical level than the above scholars Descartes (1596-1650) asked how one can actually know anything? He responded famously, “Cogito ergo sum” (I think therefore I am), as one thing he could state with certainty. He went on to argue that a mechanistic sciences approach must be used to help humankind discover and document the laws of the universe. Together these philosophers/scientists, and others, created the “Modern Age”; it seeks to unlock all the secrets of the universe.

THE MODERN AGE

Adam Smith (1723-1790) was born in to the modern age. He was a moral philosopher. He published, ‘The wealth of nations’ in 1776. This book makes reference to an “invisible hand” in a passage that has been reproduced in most primary economic textbooks published in the 20th Century. In such textbooks the passage is usually used to support the argument that personal greed is a good characteristic from a societal perspective because it ensures that production remains high, and everyone benefits in a society that is rich in production. However, it can be argued that Smith’s writings have been misinterpreted in the modern world. It is difficult properly to understand Smith’s reference to an invisible hand because he makes only the one reference to it in a book that is over 1,000 pages in length. Elsewhere he provides many criticisms of the evolving society of his day (Kelly & Oliver, 2003; Griswold, 1999).

The modern age lasted until at least the 20th Century (whether a post-modern age emerged at some point is not clear). My generation was brought up to believe that with the passage of time all that happens in society, and the universe, will become clear and controllable by the busy scientific community which is constantly seeking the universal truths that explain the workings of everything. The proof of such thinking is everywhere around us. Could the people of the dark ages have imagined: cars, airplanes, lunar rockets, radios, televisions, computers, kidney transplants, etc.? Scientific thinking could perhaps provide us with complete control of our environment, given time? Social scientists have been attempting to discover the immutable laws of human conduct, just like the natural scientists were discovering the immutable laws of the natural sciences@:

The hypothesis that man (sic) is not free is essential to the application of scientific method to the study of human behavior. The free inner man who is held responsible for his behavior is only a prescientific substitute for the kind of causes which are discovered in the course of scientific analysis. All these alternative causes lie *outside* the individual (Skinner 1953, p. 477).

Skinner was a highly regarded professor of psychology at Harvard. His thinking was based on the cause-and-effect relationships identified by scientists. Such research could reveal 'objective truths' which obviate the need for decision making based on the exercise of ethical choice and moral responsibility. Decisions might require the application of instrumental rationality rather than the submission of ends and means to any scale of values. Willmott, Puxty and Sikka (1993) explain that from the >modern= perspective, chosen ends may make it unnecessary to submit implied means to any scale of values. Individual responsibility might be abolished except when measured by instrumental rationality.

All of today's academics and business leaders were born in the 20th Century, when the Modern age thinking was dominant. It requires the use of instrumental reasoning to allow us to reach goals that have been created in society and passed down to us. The most accepted, and dangerous (see later), of these goals involves the maximizing of short term profitability as the dominant goal in business decision making. This goal was successfully championed by many relatively wealthy people in the 20th Century, notably Friedman (1912- 2006) who won the Nobel Memorial prize for Economics in 1976.

Friedman (1962) argues that the notion of social responsibility in business is objectionable. He argues that there is only one universal responsibility of business people and that is to increase profits, within the rules of the game (that is without breaking the law). Managers have no mandate to interfere with their societal environment by indulging personal fancies and attempting to justify their personal integrity in relation to some ill-defined "public good". Friedman influenced such politicians as Nixon, Reagan and Thatcher, "Now that Reagan was President, Friedman continued as an outside economics adviser . . . to offer his analysis and advice" (Greider, 1987, p. 379).

THE PROBLEMS BECOME EVIDENT

The pace of change in the world environment of humankind was greater in the 20th century than in any previous century. The development of scientific knowledge and the development of global corporations led to decisions being taken with worldwide repercussions. The bombing of Hiroshima and Nagasaki in 1945, the Union Carbide disaster at Bhopal in 1984, the Chernobyl disaster in 1986 and the Exxon Valdez disaster in Alaska in 1989 provide examples of human made disasters that had never been possible on their scale before the 20th Century. Humankind's ability to 'control' its environment had become dangerous. It became obvious to some that a new way of thinking that recognised the risk management required in decision making was required.

The instrumental reasoning of the 20th Century that focused on short term profit maximization had not been adapted to fit business decision making for the new age where poor decisions could have disastrous consequences because of our scientific 'progress'. The United Nations in the 1970s started to recognize the danger. It was recognised by some that a new 'sustainable' way of business decision making must evolve. Although there is no universally accepted definition of sustainable development, probably the most widely quoted definition is supplied by the Brundtland Commission (1987), "Humanity has the ability to make

development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs”. In 1992 the United Nations (UN), in recognition of the need to respond to the changing environment, organised the first Earth Summit in Rio de Janeiro; it attracted more than 100 Heads of State. A decade later the UN’s 2002 World Summit in Johannesburg attracted participants from 174 countries.

However, it can be argued that the problems of instrumental reasoning remain with us even in the 21st Century. The global financial crisis (2009), WorldCom (2002) and Enron (2001) may have all been helped to develop by instrumental thinking which lacked ethical input (Longstaff, 1992). Moreover, the UN asked a team of scientists to report on the state of the world for its Johannesburg Summit in 2002, ten years after the Rio Earth Summit where the problems had received international recognition. Excerpts from the report appear below:

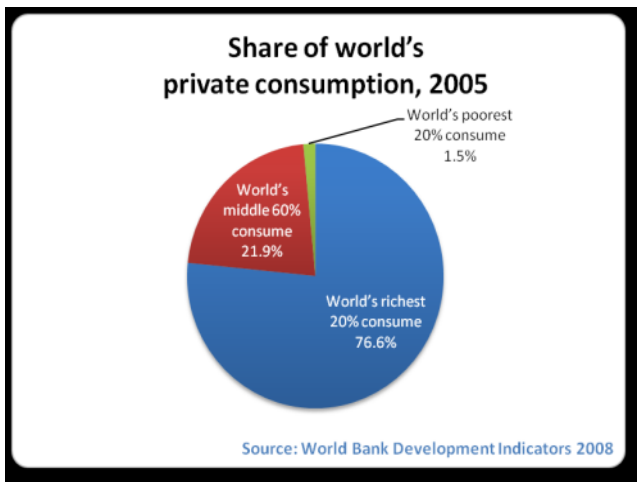
- Nearly 26,000 plant species, more than 1,100 mammals and 1200 birds, 700 freshwater fish, and hundreds of reptiles and amphibians are threatened with extinction (Doering et al., p. 33).
- More than half the world’s citizens have never used a telephone, 7% have access to a personal computer and only 4% have access to the Internet (ibid., p. 45).

In 2000, the UN also commissioned a team of world renowned scientists to produce ‘The Millennium Ecosystem Assessment Synthesis Report’ (MA), to document the state of the globe as we entered the 21st Century. The MA, published in 2005, stated that of the 24 ecosystems examined, 15 were being used unsustainably; these included: fresh water, capture fisheries, air and water purification, the regulation of regional and local climate, natural hazards, and pests. The true costs of the ‘consumption’ of these ecosystems is not being measured and reported to the global decision makers who control the human production systems, which are largely responsible for the exploitation of the ecosystems. Often these unreported ‘costs’ are being shifted from groups in one part of the globe, to other groups elsewhere and from this generation to future generations. The MA report provided four main findings:

- Over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fiber and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth.
- The changes that have been made to ecosystems have contributed to substantial net gains in human well-being and economic development, but these gains have been achieved at growing costs in the form of the degradation of many ecosystem services, increased risks of nonlinear changes, and the exacerbation of poverty for some groups of people. These problems, unless addressed, will substantially diminish the benefits that future generations obtain from ecosystems.
- The degradation of ecosystem services could grow significantly worse during the first half of this century and is a barrier to achieving the Millennium Development Goals.
- The challenge of reversing the degradation of ecosystems while meeting increasing demands for their services can be partially met under some scenarios that the MA has considered but these involve significant changes in policies, institutions and practices, that are not currently under way. Many options exist to conserve or enhance specific ecosystem services in ways that reduce negative tradeoffs or that provide positive synergies with other ecosystem services.

There are many other published statistics that suggest that the state of 21st Century society is problematic, for example:

Examples of some tragic results of pursuing “profit maximisation” can be found in many newspaper articles, ranging from global warming and ozone depletion to severe social problems such as the widening income gap and child labour. The recent financial crisis was caused by over-zealous short term profit maximisation. Short-term profitability is not a sensible measure of a company’s underlying health. However, the 20th Century global economy evolved to further encouraged companies to focus on their short-term profitability. As Stead and Stead, 2004 report:



- The current economic wealth framework grew out of the Scientific and Industrial revolutions that began in the seventeenth century and has since come to dominate all of society's institutions, whether they are political, religious, educational or economic... [It] is both inaccurate and inadequate for humankind's survival (p. 29).
- The mental pictures that our ancestors used to comprehend their environment were developed in a very different type of world than the one that exists today... human beings developed cognitive processes that focussed on the short term... For most of human history these short-term mental processes were adequate for survival... unfortunately human perceptual processes are still tied to the old world of short-term dramatic change (p. 130).

More and more commentators are recognising that changes in the business decision making model are necessary:

- The commitment to creating organizational wealth in a manner that is economically, technologically, and socially sustainable challenges conventional thinking about the nature and sources of corporate success (Post et al., 2002, p. 241).
- Some managers continue to think in *stockholder* terms because this is easier. To think in stakeholder terms increases the complexity of decision making, and it is overly taxing to some managers to determine which stakeholders' claims take priority in a given situation. Despite its complexity, however, the stakeholder management view is most consistent with the environment that business faces today (Carroll & Buchholtz, 2000, p. 86).

There is a need for a change in the business paradigm (Kelly & Oliver, 2003). When wealth accumulation is the primary goal there can never be enough wealth. Duska (2005) claims that corporations with the primary goal of growing bigger and wealthier, will do almost anything to achieve it. Surely in a society that allows corporations to exist, they must respond with behaviour that better serves their host society. The primary goal of business may better be considered to be, "to produce useful goods and services, while making sufficient profits to ensure survival." Enron wanted to be "the world's leading company" and Duska asks the reasonable question "doing what?" (Duska, 2005, p. 20). How did society allow the growth of such a monster, as a legal person, in its midst (Boje & Grace, 2002)? Surely it should not have been possible?

The view of rationality that dominated the Enlightenment was one in which emotion was entirely excluded. It has been assumed ever since that emotion contaminates reason. Aristotle would not have agreed, and he has the support of some of our contemporaries. Klein (2002) argues that emotion is necessary for rationality and that moral reasoning and its concomitant feelings are necessary for business to function properly. He cites Damasio (1994) who suggests that emotion helps people act rationally and decisively. Damasio is also cited by Kelly & Walker (2008), he:

observed in his patients with frontal lobe brain damage that while their rational capacities survived intact they were unable to make decisions and that they had exceptionally poor judgement in their daily lives. What they were missing was the emotional content of cognition. For people with intact frontal lobes the emotions play a vital role in narrowing the range of practical options so that decisions in real time can be made and in providing feelings (somatic markers) that indicate whether the plan is a good idea or not. You may think of doing something but experience a lurch of fear that alerts you to possible dangers if you take that course. Further reflection is needed or the plan is to be discarded. Fear, anger, disgust and shame all play their part in guiding decision making and, far from detracting from rationality, emotional content is necessary to complete it (p. 80).

According to Aristotle right training is essential so that a person feels “joy and grief” at the right things. Emotions can be trained so that a person quickly rejects the immoral course of action because it is unpleasant and chooses the virtuous one because it is pleasurable. The training of the emotions leads to virtuous conduct and happiness; thus the emotions are central to ethical decision-making.

Klein (2002) argues that business virtues are necessarily founded on emotions and that these business virtues are necessary for business to survive and flourish. Most people’s uneasiness with the pursuit of material self-interest arises because the current business model emphasizes competition, ruthlessness and the absence of the ‘soft’ qualities of the heart that we expect to find in other areas of our lives. Klein argues that if trade is properly conducted business: virtues come to the fore, emotion has a central place and trade is mutually beneficial. The pursuit of material self-interest does not have to be in conflict with morality. Business virtues are based on such things as “feelings of friendliness, cooperation, trust, and a concern for justice and honesty” (p. 348) and these feelings should be fostered in the course of training business people. However, the introduction of feelings and emotions to business life introduces uncertainties. Such elements are difficult to incorporate in to our existing business decision-making models. Individual business people often appear well able to provide good solutions to problems that they have been trained to see. However, many businesses that appear to be doing well when viewed narrowly are vulnerable in our complex societies. Those envisaging roles in business management in the 21st Century are in need of education that will allow them to free business decision making from the Modern mantle created by Descartes et al. in the 16th Century, and tightened by Friedman et al. in the 20th Century.

THE ROLE OF BUSINESS EDUCATION IN THE 21ST CENTURY

Many of us who trained to be managers in the 20th Century were not taught how to challenge the thinking that was being provided to us. We were asked to accept the management training that we were receiving and join the privileged managers who were making a ‘good’ job of managing the world’s assets and earning themselves high remuneration for doing so. The ozone layer and the plight of the world’s poor were not known to many of us. Now that some of us are in positions of relative power, we must decide how best to help society to survive. We must provide our young managers with the skills and confidence necessary to challenge the thinking in the business world which they join. The business education that is currently found in many of our business schools must be revitalised:

We believe that the study of management has lost ... the ability of management scholars to think and reason philosophically about their discipline... we want graduates who think innovatively, holistically, can see the outcomes of their decisions, who constantly question and challenge convention (Goodman, 2009, p. 41).

In order to achieve this we must not only teach our students such techniques as discounted cash flow modelling and linear programming, we must also teach them about: existential thinking, critical theory and dialectical enquiry. At the Earth Summit in 1992 it was agreed that education for sustainability is, “...critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision making” (Parliamentary Commission for the

Environment -PCE, 2004, p. 37. This agreement requires that we determine what “education for sustainability is”. The PCE suggests:

It aims to empower people of all ages and different backgrounds to contribute to a better future. It encourages people to ask lots of questions, challenge underlying assumptions, and to think for themselves. It looks at individual and systemic changes that are needed to resolve unsustainable practices. Education for sustainability will require people & organizations to see... that there will need to be a... redesign of many systems and established ways of doing things (ibid, p. 15).

People must be educated to think critically about their own values and the values (or lack of values) embedded in the institutions that surround them. Citizens must not blindly accept and promote the current situation. We must require some conscious collective responsibility for making decisions regarding how society’s accumulated groups of assets are to be used to achieve the best outcomes for humankind. We must demand change. As Elkington (1998) states:

Business is about the creation of economic value, and not about social or ethical values... a full generation of business leaders have been taught to stay out of politics... (even oppressive regimes)... [We must work] with both individuals and groups to help them change their mindsets and, even more importantly, to transform corporate culture (p. 7).

We cannot allow the twentieth century business decision model to dominate our 21st Century thinking. We must recognize and respond to the challenge facing humankind on this fragile planet, otherwise we are heading for perdition.

CONCLUSION

If there had been a university in Ancient Greece, probably one of its main objectives would have been to foster the kind of thinking in society that would persuade people to search for ‘good lives’ and help them in that quest. The Greeks were also interested in the natural sciences. The global society of the 20th Century is far ahead of where the Greeks were in their understanding of the natural sciences as judged by the ability of humans today to control and make use of the natural environment around them. However, many contemporary thinkers believe that the natural globe, and humankind itself, have been abused by the decision makers in the 20th Century. The evidence for this, in small part, is produced in this paper.

Unfortunately in contemplating how to live well, modern age humans have adopted a scientific reasoning that has allowed them to reach goals that have been set without sufficient concern as to whether the adopted goals are consistent with the living of a good life. It appears that morality has been subjugated to the pursuit of lesser aims such as the maximisation of short term profitability. Most people in the 21st Century are not living, or attempting to live, a ‘good life’ in the manner sought by the Ancient Greeks. We appear to have regressed in our thinking in this area.

Few people would argue that 21st Century life should rid itself of business and trade but if we do not educate the most powerful 21st Century decision makers in to the use of a different paradigm for business decision making (to that used in the 20th century), it seems probable that our global society will be destroyed by physical disasters such as the depletion of the ozone layer, or absence of fresh water. It might also be destroyed by the 77% of the world’s poorest people who decide they no longer wish to accept the world order that they have inherited. They may discover ‘scientific’ ways to convince those who control the world’s assets that change is necessary. Those scientific ‘solutions’ may make the ‘Twin Towers’ incident appear a minor inconvenience. Those who are currently involved in business education have a heavy burden to carry.

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GLOBAL WINE TAXATION: SOUTH AFRICA, AUSTRALIA AND FRANCE, A COMPARISON

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ABSTRACT

This paper seeks to compare the wine tax regimes in South Africa, Australia and France. The aim of comparing these indirect taxes is to help inform the debate about the indirect taxation of wine. The paper examines these wine tax policies based on the generally accepted tax policy criteria of fiscal adequacy, economic efficiency, equity and simplicity. The paper finds that there is little justification for significant levels of wine taxes on tax policy grounds for wine producing countries.

INTRODUCTION

South Africa, Australia and France employ different indirect tax systems for wine that are a result of numerous factors such as economic, social, cultural and historical. This paper seeks to compare these wine taxes in these three countries. The aim of comparing these indirect taxes is to help inform the debate about the indirect taxation of wine. This is highly relevant given the rising importance of excise on alcohol associated with an increasing consciousness of the costs of excessive drinking and the growing competitiveness of the international wine market.

First, this paper sets out the types of indirect taxes and discusses wine tax design. Secondly, the paper provides an overview of the indirect taxes that apply to wine in South Africa, Australia and France. Thirdly, the paper examines these wine tax policies based on the generally accepted tax policy criteria of fiscal adequacy, economic efficiency, equity and simplicity. The paper finds that there is little justification for significant levels of wine taxes on tax policy grounds for wine producing countries.

TYPES AND DESIGN OF INDIRECT WINE TAXES

The following types of indirect taxes are levied on domestically produced wine in South Africa, Australia and France. Excise duties, sales tax (also known as the Wine Equalisation Tax), the value added tax (VAT) (known as the goods and services tax in Australia). Additionally, a number of minor levies and other imposts also apply to wine, however, these charges are excluded from this analysis given their small quantum.

Excise duties are levied on the production of certain goods. Excise duties are generally assessed according to the quantity, weight, volume or strength of a product. In respect of alcoholic beverages excise duties are generally applied according to the alcoholic content of the product or on the value of the product or a combination of these. Generally excise duties must be paid on wine before it can be sold for consumption. Additionally, excise duties form part of the GST tax base. Of the three countries, only South Africa and France apply excises on wine.

Sales taxes are levied on the general consumption of goods and services but unlike a GST, sales taxes are only levied at one stage of the production or distribution process, for example at the manufacturing, wholesale or retail stage. Whilst Australia imposes a sales tax on wine, known as the Wine Equalisation Tax (WET), South Africa and France do not impose sales tax.

The VAT is a broad based consumption tax that is levied on the consumption of goods and services. VAT vary all over the world but share the principle of taxing a broad base of goods and services, and they also permit businesses to offset the VAT paid on their inputs against their VAT liability. The standard VAT rate for wine is 14 per cent in South Africa, 10 per cent in Australia, 19.6 per cent in France. Since the VAT is applied at standard rates applicable to most other goods and services, this tax is not critically examined in this paper since the focus rests on additional taxes on wine such as excise and sales taxes.

The above wine taxes are either specific (eg the South African and French excise per litre) or ad valorem (eg the VAT and the WET). These different methods though have an impact on consumers and producers. Cnossen (2009) found that specific taxation tends to lead to higher consumer prices, lower consumption and thus it reduces tax collections. It does not directly distort manufacturers' decisions to invest in product quality. Whereas, ad valorem taxation raises consumption and tax revenue but it induces firms to reduce prices, down grade product quality, reduce advertising and marketing costs, Barzel (1976). As discussed later, from a Pigou's (1918) point of view to correct externalities a specific tax based on alcohol content it to be preferred. External costs are costs that are not included in the market price of the goods. For alcohol abuse these are the health and other costs. Also, from a simplicity point of view it maybe easier to collect a specific tax from manufacturers or importers. Overall, the choice of tax depends on the policy goal of governments.

Further, design issues remain with specific taxes on wine. Is the tax levied on volume, weight, number of bottles, alcohol content, type of drink or a combination of these. For ad valorem taxes, the rate must be levied on wholesale or retail prices (including or excluding VAT).

OVERVIEW OF WINE TAXATION

South African domestically produced wine is subject to the standard rate of VAT and a small excise. The wine industry is significant, in 2005 South Africa was the eight largest producer and exporter of wine, International Organisation of Vine and Wine (IOVW) (2005). There are 112,590 hectares of vines producing wine grapes are under cultivation and about 257,000 people are employed both directly and indirectly in the wine industry, South African Wine Co (2010). The excise rates for unfortified wine vary and these are assessed on the quantity and type of wine as follows:

Table 1: Excise duty on Wine in South Africa

Type of wine	Rand per litre
Unfortified wine	R1.98 / l
Sparkling wine	R6.16 / l

Source: Schedule No. 1 Parts 2, 3 and 5 of the *Customs and Excise Act*, (SA) Act No. 91 of 1964; South African Revenue Service, 'Excise Duty on Alcohol and Tobacco Products', 6 April 2009, <http://www.sars.gov.za/home.asp?pid=483>.

This excise is quite small, for example, for still wine this works out to R1.485 (or AU22 cents) per 750 millilitre (ml) bottle.

Australian domestically produced wine is subject to the standard rate of VAT and a high sales tax of 29 per cent known as the Wine Equalisation Tax (WET). Over the last 20 years Australia has also established a significant wine industry. From 1990 to 2005 Australia became a net exporter of wine and exports increased from 380 thousands of hectoliters (mhl) (a hectoliter equals a 100 litres) to 7,019 mhl, more than a 17 times increase, Australian Wine Brandy Corporation. Outside of Europe, Australia is the largest exporter of wine but only accounts for 5 per cent of world wine production, IOVW (2005). In 2005 Australia was the sixth largest producer and fourth largest exporter of wine. The Australian wine industry makes a significant contribution to the economy employing 27,959 people in 2006, Winemakers Federation (2008). In 2008 there were 2,299 wineries operating in Australia and 89 defined wine regions. Further, the wine industry makes a significant impact on the tourism industry.

The WET commenced on 1 July 2000 and was designed to replace the former wholesale sales tax on wine. Prior to the WET the last wholesale sale of wine was subject to sales tax at the rate of 41%. Given the GST rate of

only 10% wine prices would have dropped severely. The wholesale sales tax was abolished on 30 June 2000 with the introduction of the GST and the WET. WET imposes a wine tax on the taxable value of assessable dealings with wine in Australia. Assessable dealings include selling wine, using wine, or making a local entry of imported wine at the customs barrier. The tax is applied to both Australian produced wine and imported wine. The primary types of assessable dealings are: wholesale sales; retail sales; application of wine for own use and certain importations. Some assessable dealings such as exports are exempt.

The WET is payable by wine manufacturers, wine wholesalers and wine importers. Retailers of wine pay WET in the sense that their payments to suppliers for wine includes a mark up for WET paid. In this way WET is passed on in the price of the wine to the end consumer. WET is calculated at the rate of 29 per cent of the taxable value of assessable dealings with wine in Australia. The WET is calculated on the selling price of the wine excluding wine tax and GST. Where wine is not the subject of a wholesale sale, ie where it is sold at cellar door or used for tastings or promotional activities the WET provides for calculation of alternative values for the tax payable.

The WET forms part of the GST tax base and GST is payable on the value of the wine including any WET component. For imports, an assessable dealing with wine is taxable when it enters Australia. The taxable value is equal to the GST importation value of the wine. The GST importation value is the customs value plus the costs of transport, insurance and duty.

The WET and the GST provide a concessional cash accounting rule for business with annual turnovers of less than \$2 million. This means that eligible small wineries do not pay WET or GST until they actually sell the wine. A rebate of WET applies for producers of rebatable wine that are registered or required to be registered for GST in Australia. From 1 July 2006, the maximum amount of rebate an Australian producer, or group of associated producers, can claim in a full financial year is A\$500,000. This is equivalent to about A\$1.7 million wholesale value of eligible sales and applications to own use per annum. Given this highly favourable tax treatment there are 2,072 small wineries (or 96 per cent of wine producers) that do not have to pay WET, Winemakers Federation (2008).

In France domestically produced wine is subject to the standard rate of VAT and a small excise. France plays a dominant role in the world wine industry. It was the second largest producer and third largest exporter of wine by volume in 2005, IOVW (2005). France was also the top consumer of wine and fifth largest importer.

Over the last 25 years at least, France has imposed relatively low levels of specific taxes on wine. The excise rates for still and sparkling wine have not changed since 1982 and for sweet wine it has not changed since 1993, Direction Generale des Douanes et Droits Indirects (2008). In accordance with the European Union (EU), the French excise duty is levied on still wine and sparkling wine by reference to the number of hectolitres of finished product, European Union Council Directive (1992). The EU provides for a zero minimum excise per hectolitre for wine. In France the excise rates for unfortified wine vary and they are assessed on the quantity and type of wine as follows:

Table 2: Excise duty on Wine in France

Type of wine	Euros per hectolitre
Still wine	3.40 € / hl
Sparkling wine	8.40 € / hl
Sweet wine	54 € / hl

Source: Direction Generale des Douanes et Droits Indirects, 'Tux d'accises en France et annee de la derniere evolution' 18 September 2008, (French customs and excise duties on wine).

This excise is extremely low, for example, for still wine this works out to €0.026 (or AU 4 cents) per 750 millilitre (ml) bottle.

TAX POLICY ANALYSIS

The following tax policy analysis of excise and sales taxation on wine is based on the generally accepted tax policy criteria of fiscal adequacy, economic efficiency, equity and simplicity. Wine taxation is also advocated

on public health grounds given the high costs from alcohol related road accidents and alcohol abuse. Since this rationale is not a tax policy goal and thus is outside the scope of this paper.

Fiscal adequacy (the ability of taxation law to finance Government expenditure) appears to be the primary reason for alcohol excises. For example, in respect of wine taxation, the Australian Government provided revenue raising as its rationale for increasing the wholesale sales tax on wine in 1993 and 1997. Whilst tax revenue raising may often be cited as the primary rationale for wine taxation comparatively small amounts of revenue are raised. In 2006-07 Australia's WET produced A\$651million of revenue, Australian Treasury (2008). This only represents 0.2 per cent of total tax revenue of Commonwealth government tax revenue. In France, the tax revenue from the excise tax on wine amounted to a mere €\$138.3 million in 2007, Direction Generale des Douanes et Droits Indirects (2008). In relation to total government revenue these taxes are miniscule and the case for revenue raising is not compelling.

Given the long term decline in wine production and consumption wine producers face a shrinking market pool. Further, changing consumption patterns towards premium wines presents new challenges for wine producers, Wittwer, Anderson (2001). Therefore, there is an increasing need for a competitive indirect tax system that will allow the wine industry to efficiently use its resources and compete effectively.

It is argued that alcohol taxation minimises consumption distortions. Since there are few substitutes for alcohol, it is thought to have a highly inelastic demand schedule consumption is minimally affected by a small increase in price. This means that excise taxes provide minimal distortion to economic decisions.

Others contend that broad based uniform tax rates should apply to goods to maximise economic efficiency. On this basis excises are inefficient. Cnossen (2009) explains that through an assumption that utility is weakly separable between consumption and leisure, changes in the relative price of goods do not impact on labour. Thereby the optimal tax should require the same tax rate on all commodities. That is, if variances in the price of aggregate consumption relative to the price of labour do not distort labour supplied, then a tax system that does not distort relative prices between products is optimal.

Crawford, Keen and Smith (2008) observed that utility is not weakly separable between consumption and leisure, and that changes in the relative price of goods do impact on labour. Therefore, complementary goods with leisure should be taxed at a relatively higher tax rate and that complementary goods with work should be taxed at a relatively lower tax rate. Since alcohol is a complementary good with work, there is a basis for lower an average tax.

McLeod et al (2001), though, found that the demand for wine is often more elastic than the demand for petrol, tobacco and beer. McLeod et al (2001) calculated that the excises have high deadweight costs (losses in consumption efficiency) per dollar of additional tax revenue raised, relative to broadly based forms of taxation. Others also contend that broad based uniform tax rates should apply to goods to maximise economic efficiency. To maximise efficiency, a tax system should not impose any tax on goods and services as such a tax will reduce the level of demand leading to efficiency costs, Australian Treasury (2008). On this basis, to minimise the efficiency costs of indirect taxes, the tax base should be broad so as to include all goods and services and one low rate of tax should be employed. This will result in fewer changes in the consumption decisions by the impact of tax on the prices of goods and services.

The following table provides a basic comparison of the specific wine taxes on bottles of low priced and moderately priced wine in South Africa, Australia and France (in Australian equivalent dollars).

Table 3: Comparison of A\$ tax equivalents on a 750ml bottle of unfortified wine

	A\$ tax equivalent on a A\$5 750ml bottle of wine	A\$ tax equivalent on a A\$15 750ml bottle of wine
South Africa	0.22	0.22
Australia WET	0.75	2.25
France Excise	0.04	0.04

Source: Winemaker's Federation of Australia, 'Australian wine: regional, sustainable essential' (2008); Australian Customs Service, 'Exchange rates week ending 2/2/10' <http://www.customs.gov.au>, Published exchange rates as at 2 February 2010: A\$1 = €0.636 or A\$1 = R6.6915

France, with its minimal level of excise appears to have the most efficient wine tax. South Africa has a relatively low level of excise. Australia's WET though is significant as seen by the WET of approximately \$A2.25 on a 750ml bottle of unfortified still wine that retails for \$15 (15 per cent of retail price). A low price bottle retailing for \$5 will be subject to WET of approximately \$0.75 (15 per cent of retail price). Alcohol accounts for just under 2 per cent of household consumption but it produces about 9 per cent of the tax revenue from goods and services, Australian Treasury (2008). Further, such additional indirect taxes are 'generally less efficient as they also distort production decisions'. The it is asserted that it is likely that Australian consumers would gain from removal of the WET with improved quality wine, reductions in price (per same quality), increases in wine varieties, access to more wine imports and their ability to substitute other alcoholic drinks for wine, Australian Treasury (2008).

The comparison in Table 3 also highlights the impact of imposing volumetric (such as South Africa's and France's excise tax) as opposed to ad valorem taxes (Australia's WET). ACIL Consultants (2002) note this issue has been at the centre of some stern tax debates within the Australian wine industry as witnessed with the introduction of the 10 per cent GST and the 29 per cent WET in Australia.

As evident in Table 3, the volumetric excise tax on wine results in higher prices on low priced wine whilst the ad valorem WET tax results in higher levels of tax on moderate and premium wine. Given the relatively low price of Australia's domestically consumed wine, Wittwer and Anderson (2001) modelled that a volumetric tax could increase the price of wine by up to 50 per cent. ACIL Consultants (2002) argued the shift to premium wine would result in a loss of employment of about 6 per cent in non-premium wine areas (Riverland, Murray Valley and Riverina). Thus, the Winemakers' Federation opted for an ad valorem tax. However, premium wine makers were considered to be disadvantaged and some sectors of the wine industry were critical of the Winemakers' Federation decision (Western Australian and Tasmanian wineries). Given the world wide trend for greater consumption of premium wines the WET maybe counter productive.

Cora (2007) asserted that since the WET only applies to domestic sales it provides a big incentive for smaller (exempt) producers to focus on the domestic market rather than export. This has resulted in Australian wines selling for less than \$2 per bottle given that producers pass on the rebate to consumers in lower wholesale prices. Given the lower profitability of exports under the WET some producers sought to increase the price of exported wine and thus struggle. ACIL Consultants (2002) noted some winemakers argue that WET pushes them into exporting before they are ready.

In a VAT environment the case for wine tax is greatly weakened. McLeod et al (2001) noted the rationale for a VAT is to provide a broad tax base at a single rate to enable revenue to be raised at relatively low rates independent on consumption choices. Thus, another level of indirect taxation on selected good and services undermines the policy objectives of a VAT.

Additionally, it is argued that an alcohol tax is justified on the basis that it corrects external costs which are not included in the market price of the goods, ACIL Consultants (2002). For alcohol abuse these are the loss of output, health costs, alcohol related road accidents, violence crime and child abuse. Without an excise the individual engages in more of the activity than is socially optimal. On this basis, Pigou (1918) found that the efficient consumption or production can be attained through an excise on the activity equal to the marginal cost of the damage caused to other people (this is known as a Pigouvian tax).

Collins and Lapsley (2008) estimated that in Australia the total tangible costs of alcohol in crime, health cost and lost production amount to \$11 billion. Further, intangible costs associated with the loss of life and pain are estimated at \$4.4 billion. The intangible costs are though largely born by the abusers of alcohol. Fenoglio, Parel and Kopp (1997) estimated that the tangible costs of alcohol in France were between 0.7 – 1.3 per cent of GDP. However, Single and Easton (2001) note these estimates may have a broad range of error. Cnossen (2009) found that other studies of nine countries (Australia, Ireland, England & Wales, United States, France, New Zealand, Germany, Canada, and Italy) estimated that the external costs as a percentage of GDP range from between 0.4

(low point) to 2.1 per cent (high point) of GDP. The average of the low end of this range is 0.7 per cent. Applying this low end average to Australia in 2008-09 would result in externalities of about \$8 billion, Australian Bureau of Statistics (2009). During the 2006-07 year, alcohol taxation totalled \$3.4 billion (WET \$657 million; alcohol excises \$2.7 billion), Australian Taxation Office (2008). This appears to provide a sound argument for wine taxation.

There are a number of problems with this approach. First, ACIL Consultants (2002) noted that the health costs of alcohol abuse are generally incurred by the consumer rather than taxpayers. There are safe levels of wine consumption and there appear to be benefits associated with the moderate consumption of wine. Renaud and Lorgier (1992) found that the French's high consumption of fats but low incidence of heart disease may be explained by their high wine consumption. Also, Kinesella et al (1993) proposed that the natural anti oxidant phenolic compounds of wine may protect against heart disease. Secondly, there is the difficulty in measuring the cost of the damage. It is not known how much of this estimate is attributed to wine. On this basis, the Pigouvian tax would result in an extremely complex excise that would need to increase with consumption.

Thirdly, corrective taxation is most efficient when the external costs are taxed directly, that is, by targeting the people who abuse alcohol, Australian Treasury (2008). Cook and Moore (2002) found that particular teenagers and young adults are of special attention. This can be achieved to some extent through regulation. Shults et al (2001) found enforcement of drink-driving laws and regulating the physical availability of alcohol are very effective. Advertising bans, effectiveness of designated drivers, voluntary codes of bar practice and educational efforts are not very effective, Babor et al (2003). Advertising also appears to be effective in influencing young people about alcohol abuse, Fleming et al (2004). However, Babor et al (2003) found the use of voluntary codes of bar practice, designated drivers, education and persuasion is low. The use of excises or a WET are blunt instruments that impact widely throughout the community. Also, if a specific tax on wine was thought to be justified on this basis, then the tax would need to be based on the alcohol content and not its value. Under the WET the tax is based on the value of the wine and for many small producers no WET applies at all.

Given that young people are not fully aware of the adverse health impacts of drinking alcohol it is argued that an excise would raise the price of alcohol and thus reduce their consumption. Studies have found that the price elasticity of demand for alcohol among the young is on average twice the price elasticity of adults, Australian Treasury (2008). Thus, an excise would achieve this aim. Whilst an excise would raise the price of alcohol and thus reduce their consumption amongst the young, this may only result in the young substituting alcohol for illegal alcohol or drugs, or home made alcohol. Further, this results in a higher burden on adult drinkers. Advertising, education and restrictions on consumption for young people are alternative strategies.

Equity concerns the degree of fairness of the taxation laws. A widely accepted and fundamental principle of social justice demands equal treatment for people in similar circumstances (this is known as horizontal equity). Horizontal equity requires the determination of a tax base, to measure similar circumstances so that an appropriate amount of tax can be imposed on a taxpayer. Bradford (1986) observed most commentators have defined the tax base in terms of a taxpayer's ability to pay. Ability to pay could be based on income or wealth or a combination thereof. To ensure equity, the tax base should be defined as comprehensively as possible, so as to include both income and wealth. As horizontal equity concerns the equal treatment of equals, as a corollary, vertical equity is required to ensure that tax imposed on people in different circumstances is also fair. Vertical equity requires both progressive income tax rates and a tax based on the "ability to pay".

It is argued that excises on luxury goods with an income elasticity of demand exceeding unity will improve the progressivity of the tax system. This assumes that consumption by higher income classes is substantial. However, even if this assumption was valid, given the progressivity of income taxation and the role of social security system, this weakens the relative importance of an excise on vertical equity.

Moreover, indirect taxes have a very regressive impact as such taxes are not based on one's ability to pay. Those on lower incomes pay a larger proportion of their income on indirect taxes. The following Australian Bureau of Statistics survey compares household expenditure on alcohol for five (low to high) gross income quintiles:

Table 4: Australian Bureau of Statistics Household Expenditure Survey: Alcoholic Beverages Expenditure and Gross Income Quartiles 2003-04

	Gross Income Quintiles				
	1	2	3	4	5
<i>Expenditure relative to Income:</i>					
Alcoholic Beverages	3.3%	2.5%	2.4%	1.9%	1.7%

Source: Australian Bureau of Statistics Household Expenditure Survey: Detailed Expenditure Items Australia 2003-04, ABS Cat No 6530.0, tables 2, 4.

The above table shows that low income earners spend about twice as much of their income (as a percentage) on alcohol as people in the highest income quintile. This underlines the regressive impact of taxing alcohol at higher rates.

Tran Nam (2001) asserted that the most rigorous and the generally accepted measure of simplicity seeks to identify the operating costs of a tax law. Operating costs consist of the compliance costs of taxpayers and the administration costs of the Government. Simplicity can, theoretically at least, be measured by estimating these operating costs, and dividing this amount over the amount of tax revenue. It follows that simplicity will improve where the operating costs or this ratio falls. However, there is no known quantification of the compliance and administration costs associated with wine taxes in South Africa, Australia and France. The greater the number of layers of indirect tax on wine, though, the greater the level of complexity. This means higher levels of compliance costs for the wine industry and administration costs for governments.

Australia's WET provides a vivid example of the complexity involved with imposing another layer of tax on wine. The complexity of the WET is evident from the legislation and from the number of Australian Taxation Office (ATO) publications on the WET. There are 3 ATO Rulings; 8 Fact Sheets; 2 Forms; 3 How to complete your business activity statements; 8 New Zealand WET rebate papers. Many of these publications are highly technical and lengthy. For example, WET Ruling 2004/1 (2004) on the operation of the wine equalisation tax system runs to some 146 paragraphs. From a simplicity point of view it is preferable to only apply one layer of indirect tax to wine. Preferably, such a wine tax would be part of a comprehensive indirect tax base with a common tax rate such as a VAT. This would remove a layer of tax law and the use of a uniform rate would remove the problem of having to classify goods against a range of taxation rates and / or structures. From a simplicity point of view the wine excises and the WET should be repealed. As McLeod (2001) noted a minimal increase in the general rate of the VAT could be enacted to replace the forgone revenue.

CONCLUSION

Reflecting the finely balanced trade offs involved in the four tax policy criteria, South Africa, Australia and France have adopted varying wine tax policies. A wine tax will marginally help fiscal adequacy but will damage equity and simplicity. On economic grounds, there are strong arguments for a wine tax given the high public externality costs. However, for wine producing countries other significant economic costs emerge given the distortions to the decisions of producers and consumers. More research is needed to quantify these costs and benefits of wine taxation to achieve an optimal level of wine taxation.

From the point of view of significant wine producing nations, given the small amount of tax revenue raised by wine taxes, the damage to equity and simplicity, and the apparent lack of any clear gain to economic efficiency (high externality costs versus high industry costs), there appears to be no strong grounds for wine taxation (specifically in respect of significant levels of wine taxation). McLeod (2001) similarly concluded that wine excises could not be justified on tax efficiency or tax equity grounds. Whilst McLeod's Review found that wine excise could be justified on externality grounds, but such a tax should be well below the excises currently imposed. Notably, the leading wine producer, France lightly taxes wine this suggests that the economic costs are high and this prohibits significant levels of wine taxation. South Africa also applies a modest level of wine tax. Australia, though, appears to be out of step with its high 29 per cent WET.

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PAK-CHINA ECONOMIC COOPERATION IN NEW DIMENSIONS

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ABSTRACT

Pak China relation in friendship and trade begins since China's year of independence 1949. Pakistan is the first country in the world to accept china at UNO forum. China respects the stand and support of Pakistan. China is the only country in the world, which helps Pakistan at every forum, for instance trade, commerce, agriculture, defence etc. Presently they are contributing on large scale in Power and Energy sector to tackle the shortage of electricity and power problems in Pakistan. Additionally China is helping Pakistan in defence related activities.

In long-term the two governments have accorded to continue to play the lead role in providing a strategic framework and institutions of cooperation and guiding and facilitating economic and commercial interaction. The two countries agreed to strengthen the cooperation between the private enterprises, which will be the real operators. Collaboration between research institutions will help in analyzing the situation, identifying the potential areas and providing assessment that will help the collaboration process. An interaction between government agencies, business community and the research institutions will have synergic impact.

INTRODUCTION

Relations between China-Pakistan have grown from strength to strength, with standing the test of time and changing global and regional scene. Besides strong political and strategic ties, the two countries also enjoy close economic links. A question often raised relates to sustainability of these relations in future, changing global situation and market orientation. Some apprehend that as the past relations were nurtured by special and peculiar compulsions of the time, their intensity is likely to impair with the emergence of new realities, in particular, owing to rapid growth and opening up of the Chinese economy (Hassan 2006). China is already one of Pakistan's key trading partners. The current volume of trade is around US \$5BN. However, the governments of the two countries, in the spirit of friendship and cooperation that has existed for over 4 decades now, have decided to form a Pak-China Investment company that will invest billions in Pakistan and will also triple trade volume to \$15BN in the next 4 years to 2012 (see study by Bordonaro 2006). This paper dilates upon various aspects of this issue. The paper is divided in to the following sections:

- a. Overview of past and Current Sino-Pak Economic Relations
- b. Emerging global and national scenario bearing on bilateral relations
- c. Prospects for new phase collaboration
- d. Conclusion

Overview of Sino-Pak Economic Relations

Past collaboration

Pakistan is among forerunners in establishing close links with China. Ever since recognition of the newly established Peoples' Republic of China by Pakistan in 1950, economic relations between the two countries grew persistently (Daily Times 2006). Some landmarks are:

- Air Transportation Agreement (1959) followed by inaugural flight of PIA to Shanghai in April 1964
- Bilateral Trade Agreement (1963) granting MFN status to mutual trade
- Border Trade Agreement (1963) facilitating trade across border of Northern Areas of Pakistan and Xinjiang province of China
- Setting up of China-Pakistan Commission on Economic, Trade and Technology (1982)
- Construction of Karakoram Highway (August 1970s)
- Setting up Heavy Mechanical, Heavy Electrical and Aeronautical Complexes in Pakistan with Chinese assistance and collaboration
- Construction of Saindak (Balochistan) Integrated Mineral Project
- Building Chasma Nuclear Plant with Chinese collaboration
- Chinese collaboration in various projects in Pakistan (i.e., cement, fertilizers, glass, paper, power, etc.)

Current Areas of Cooperation

The collaboration has entered a new phase in recent years with strengthening and widening cooperation in multiple directions. Besides ongoing collaboration, according to FTA (2005) the additional areas include:

Investment

- New Proposals and projects with sizeable Chinese investment. Special zones for Chinese investors announced and one such zone has been established near Lahore.
- Pakistan-China Joint Investment Company established (PCICL)
- Additional investment by China in Saindak Copper and Gold Mines.
- China Metallurgical Construction Corporation (MCC), which already runs a copper mine in Pakistan's Balochistan province, is showing renewed interest in expanding and modernizing Pakistan Steel Mills (PSM), the country's only integrated steel-manufacturing plant, at a cost of US\$2.2 billion.

Trade and Transit

- Sino-Pak Free Trade Area has been enforced. The FTA envisages elimination of import tariffs on a large number of items of export interests to each other. An important development is the inclusion of services and investment in the purview of the Arrangement FTA (2005).
- Implementation of Four-nation Transit Agreement (China, Pakistan, Kazakhstan and Kyrgyzstan) The Agreement was signed in 1993, reinforced in 2000, but yet to be fully operational.

Communications

- The first phase of Gwadar Deep Sea Port has been completed and inaugurated. The first container ship has already anchored at the port.
- Linking Gwadar with rest of the country, particularly the commercial centers. Projects include Markran Coastal Highway and Gwadar-Quetta Road.
- Additional Chinese assistance for development of Gwadar port.
- Chinese assistance for up-gradation of Karakoram Highway. Work has been started in November 2007 on Pakistani side, while on Chinese side; KKH has already been upgraded to China's national standards.
- Undertaking feasibility for rail link between Pakistan and China.

Tele Communication Sectors

- China Mobile Pakistan has announced that the company will invest USD \$500 million in constructions of Networks and infrastructures in Pakistan this year to help its "Zong" brand in the country.
- ZTE Corporation is China's largest listed telecommunications manufacturer and wireless solutions provider.
- **Huawei** is a leading global telecommunications company solutions provider with long-term partnerships with operators in Pakistan around the world.

Automobiles

- According to the new agreement CHINA provide Car Trucks and CNG Buses
- CNG compressor for CNG stations
- CHANGAN |Kalam motor
- KARAKORAM MOTORS |Raftar km50

Energy

- Chinese collaboration in exploitation of Thar coal and its use for power generation
- Proposal for setting up Oil Refinery in Gwadar along with oil storage and petrochemical complex
- Proposal for setting up oil pipeline from Gwadar to Kashgar
- Examining the feasibility of installing additional nuclear power plants in Pakistan (besides two units already set up at Chashma)
- China upgrades our dame and also making new dames for us (Besham dame, Malakand Power House Warsak dame)

Construction

- Increased participation of Chinese firms in construction works in Pakistan (roads, telecommunications, ports, industry, etc.,)

Defense

- Expanding joint defense production (Aeronautical complex, JF 17 Thunder, Frigates for Pakistan navy)
- In Air Craft Karakoram_8(K 8) and super 7 fighter as known as CF 1 for Pakistani air force

Emerging National And Global Scene

National Scenario

It should be recognized that the past collaboration had nurtured in a different environment than prevailing now. At that time China was following socialistic and state-controlled path while Pakistan was pursuing a planned and relatively mixed economic approach. Mutual cooperation was therefore confined to state enterprises and agencies. The situation has changed in recent years. Since eighties the two countries are pursuing policies of liberalization, deregulation and promotion of private enterprise. China has registered sustained high growth rate of around 10 percent per annum for about three decades. Its global trade is equal to one-third of the GDP, capturing the world market through sustained expansion in exports. It is a leading destination for foreign direct investment and transfer of technology. With membership in WTO (2001) and IMF (2001) coupled with regional arrangements such as APEC and Shanghai Cooperation Council, China has assumed a critical role in global affairs (PCIC 2005).

Pakistan has also revived a high growth path (6-7 % GDP growth) in recent years with liberalization of economy and attracting foreign direct investment. These developments should be kept in view in future relationships. The government to government cooperation should be supplemented by market oriented approach and greater cooperation between business enterprise (PCIC 2005).

Global Scene

The global economy, dominated by industrialized North, is once again facing mounting challenges after a decade of sustained growth following the Asian financial crisis of 1997. The challenges include slowing down of economic growth, higher oil and food prices, and liquidity crunch, particularly in the world's largest economy United States. The IMF projects that world economy will grow at 3.7 % during 2008, as compared to 5.2 per cent in 2007 and earlier projection of 4.2 per cent. The notable feature of the global economy today, however, is that while US, Europe and Japan continue to hold the major share of world production and consumption, the contribution of other emerging economies from Asia, Middle East, Africa and Latin America is also increasing (PCBF 2005). China, with its fast paced and sustained economic growth, is poised to play a bigger role in the world economy from now onwards. It is expected to become world's largest economy on Purchasing Power Parity basis in 2015. China will also become a major player in world trade – as a leading exporter and destination of imports. Its global competitiveness is likely to continue though there will be a shift from factor driven competitiveness to technology driven and innovation driven. Pakistan, on the other hand, will remain in the factor-driven category for some more years to come. This will also enhance the scope of collaboration through inter-industry linkages and joint ventures.

The global, regional and national realities should underscore future efforts of mutual cooperation. These events should be seen as a source of strength for enhancing mutually beneficial cooperation (Khan 2004).

Prospects for New Phase Collaboration

The emergence of China as a global economic power should be viewed as a source of strength for China-Pak relations. As discussed in the earlier section the possibilities have expanded and diversified. Concerted efforts should be made to realize the potential fully. Areas needing attention are discussed below.

Adopting long term integrated planning

The nature and content of the agreed fields of cooperation warrant the adoption of a long term and integrated strategy and plan. Many issues are inter-related and should be pursued in integrated framework. It is desirable to adopt multi-year and integrated strategy (5-10 years) for promotion of cooperation between two countries. Good to note that a framework agreement for comprehensive economic cooperation covering five years period has been enforced. This needs to be continued, with well in advance planning through mutual consultation. The Chinese assistance policy to Pakistan should also be shifted from project to multi-year programme approach focusing on medium term needs and potential of two economies (Ministry of Commerce 2004).

Improving implementation mechanism

Despite wide ranging programmes and agreements that are agreed during visits of head of state and government in recent years, the implementation remains slow and inadequate. The desired results are not being achieved. This aspect should be seriously considered by both the sides and steps taken to strengthen and improve the implementation mechanism at bilateral and inter-agency levels (Pakistan Forum Report 2009).

Using market based approach

China-Pak relations began in a different environment than the one prevailing today. At that time the two countries were pursuing planned and relatively controlled and state-managed path of economic development. Mutual cooperation was also confined to government agencies and state enterprises. Economic and financial viability of project was not given high priority. The Chinese closed economy of yester-years is moving swiftly to market oriented one. The future collaboration between the two countries would largely be dependent on the active participation of their private enterprises. This requires a shift in approach. The two governments should

assume the role of promoters and facilitators of private sector collaboration, in addition to pursuing their own collaboration. Private sector should be closely associated in developing the programmers. Contacts and collaboration among research institutions should also be encouraged (Pakistan Steel Report 2005).

Free Trade Area as harbinger of greater cooperation

The size of China-Pak trade, though expanding, remains low. While bilateral trade is expected to reach \$ 8 billion by the end of this year, and the two countries have resolved to take it to \$ 15 billion by 2010, annual imports and exports remain very low as percentage of total of both the countries. The Free Trade Agreement should help in boosting trade and reducing the trade gap. Besides it should also help in expending investment and collaboration in services sector. Effective mechanisms should be devised to implement the Agreement (see <http://www.karakoramotors.com/>).

It may be mentioned that the selection of items for tariff elimination under FTA is normally based on existing pattern of trade and does not take into account the potential production possibilities. Mechanism should be built into the Agreement to induct potential items of trade interest in it.

Enhancing regional context of collaboration

China-Pakistan economic collaboration seems to have entered a new phase where projects of regional import are also being promoted (i.e., oil pipeline, four nation transit trade agreement, rail link). This regional dimension should also be given due consideration in formulating programmes (Geo TV Report 2009).

Considering new areas of collaboration

Cooperation in following areas may also be explored:

- Electronics, computers and telecommunications
- Outsourcing and sub-contracting by Chinese to Pakistani firms
- Seeking joint construction contracts in third countries
- Enhancing technology collaboration and joint research programmes
- Collaboration in human resource development
- Raising productivity, quality and competitiveness of their products and services to penetrate in global market

CONCLUSIONS AND RECOMMENDATIONS

This paper highlights Pak-China trade and economic relations. Pak China relation in friendship and trade begins since China's year of independence 1949. Currently China and Pakistan are collaborating in trade, commerce, agriculture, defense, telecommunication, and energy sectors. Additionally, the two countries have agreed upon continuing to play the lead role in providing a strategic framework and institutions of cooperation and guiding and facilitating economic and commercial interaction through strengthening the cooperation between private enterprises. Collaboration between research institutions will help in analyzing the situation, identifying the potential areas and providing assessment that will help the collaboration process. In this research the past and present areas of collaboration are reviewed and critical conclusions are drawn.

Pakistan is among forerunners in establishing close links with China. Ever since recognition of the newly established Peoples' Republic of China by Pakistan in 1950, economic relations between the two countries grew persistently. The collaboration has entered a new phase in recent years with strengthening and widening cooperation in multiple directions for example, telecommunication, construction, infra-structure development, defense, and energy sectors. The cooperation between the two countries can be enhanced by adopting long term integrated planning, improving implementation mechanism, using market based approach etc. By doing so it is expected that the current level of bi-lateral trade of \$ 8 billion between the countries will reach up to the level of \$ 15 billion by 2010.

The emergence of China as a global economic power should be viewed as a source of strength for China-Pak relations. China-Pakistan economic collaboration seems to have entered a new phase where projects of regional import are also being promoted (i.e., oil pipeline, four nation transit trade agreement, rail link). This regional dimension should also be given due consideration in formulating programmes.

In addition to above, cooperation in other areas for example electronics, computers and telecommunications, outsourcing and sub-contracting by Chinese to Pakistani firms, collaboration in human resource development, Seeking joint construction contracts in third countries etc. may also be explored.

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A MODELING STUDY OF SHARED SERVICES AND IT'S CENTERS' STRUCTURE

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ABSTRACT

The primary purpose for shared services is to reduce duplication of effort, enable staff to focus on the highest-value work of the agency, and provide more services with the limited resources available. It is the sharing of items or services between public entities in order to reduce redundancy and save money. Comfortable modes are often a means of relaxation and procrastination in big organizations. To transform such back-office functions into flexible, responsive, effective, and customer-oriented work shared services are a good step to be taken in sour areas of the organizations. Shared services structure comprises of organizational arrangements and governance, and scope of services with leadership, initiative workforce issues and service delivery to public. In this paper, by developing alternative models, simulations are used to model and compare the existing situation with two alternative shared service arrangements comparing the various options from a quantitative analysis. The model algorithm followed is as: to identify the problem, the sour area and the path to resolve that problem and minimize the souring to establish shared service centers. The modeling of preliminary available data in its simplest form is done. It is a rich area to research using different modeling approaches.

INTRODUCTION

Nothing is constant in the world. Anything fixed will be relative to something. The change is everywhere and this change is the drift force of each and every activity in human life. Organizations and disorganizations are routes to get useful results in one's life. Entropy has no deal and may occur anytime. Service provision and access to any service is a part of human life. Systems are designed to deliver services that satisfy the needs and aspirations of customers. Self service is a famous term used in daily life whereas Shared Services refers to the provision of a service by one part of an organization or group where that service had previously been found in more than one part of the organization or group. It is the sharing of items or services between public entities in order to reduce redundancy and save money. Organizations typically overlook shared services when identifying areas. The area should be sorest spot, highly visible and have the support and authorship of senior management, where the greatest cost savings are achievable, rather than to an area that is already supposed to be saving money. The concentration of state and other related resources performing like-activities currently spread across the organization, to service multiple partners at lower cost and with higher service levels. The purpose is to optimize the value of IT and business services to front office and back office staff resulting in improved service to the public. The primary purpose for shared services is to reduce duplication of effort, enable staff to focus on the highest-value work of the agency, and provide more services with the limited resources available.

Shared Services refers to the provision of a service by one part of an organization or group where that service had previously been found in more than one part of the organization or group. It is the sharing of items or services between public entities in order to reduce redundancy and save money. The primary purpose for shared services is to reduce duplication of effort, enable staff to focus on the highest-value work of the agency, and provide more services with the limited resources available. As organizations grow, bureaucracy and administrative burdens increase. But administrative and support functions too often do not feel directly responsible for the company's results and tend to drift into a comfortable mode. Shared services centers are often a means to transform such back-office functions into flexible, responsive, effective, customer-oriented teams.

A variety of research on shared services is available in the literature. These reporting include the shared service model, organizational arrangements and governance and scope of services. Leadership of the shared service, initiative workforce issues, and service delivery to public is main part of shared services. In some services however, such as professional services, transactional services with low customer interface and services with

excess capacity or peaks and troughs in demand, it was widely felt that sharing can offer both savings and improved quality.

Motives for establishing shared service centers are discussed in this study. Reports and published work on this topic is available. Meeting formation, calling meetings and programming those are an essential part of shared service. Recently modeling and simulation of data for shared services has been started to sort out. Different approaches and techniques are being used. Survey and questionnaire help to gather the required data. This data is screened, sorted and put into model to get future predictions. Many areas to solve and facilitate public works may be listed for the research purposes in this field.

Multinational companies were not unusual during the whole 20th century. However, these monopolistic organizations with their subsidiaries can hardly be compared to the complex multinational corporations of today. As organizations grow, bureaucracy and administrative burdens increase. But administrative and support functions too often do not feel directly responsible for the company's results and tend to drift into a comfortable mode, since they are not exposed to pressing customer needs and market forces every day. SSCs are often a means to transform such back-office functions into flexible, responsive, effective, customer-oriented teams [1]. Examinations of the rationale for international trading blocs and free trade with a focus on the implications for strategic planning of firms and national industry sectors has been done which may be a guide towards shared services [2]. A variety of county, regional, and state organizations have produced reports on inter-municipal cooperation and shared services. Consistent with past studies and assessments of shared services in New York State, the projects that saw the most success with regards to action being taken were in those functional areas that have traditionally found success—public works, shared equipment, water and sewer, etc [3]. These reporting include the shared service model, organizational arrangements and governance and scope of services. Leadership of the shared service, initiative workforce issues, and service delivery to public is main part of shared services [4]. Nothing is constant in the world [5]. The change is everywhere and this change is the drift force of every activity in human life. In some services with low customer interface and services with excess capacity or peaks and troughs in demand, it was widely felt that sharing can offer both savings and improved quality. In other areas tackling the difficulties of staffing services, caused by high recruitment costs, turnover and agency staff costs may be a more important driver than the search for costs savings alone. Developing shared services in areas with high political visibility and high degree of interaction with service users, was seen as higher risk, requiring strong partnerships [6]. Whether to consolidate or offer targeted shared services depends on political factors, economic factors, a states' current technology infrastructure and architecture, a state's current IT staffing model [7]. Implementation of project of shared service starts from identifying and listing the solutions and potential partners and financial impacts. Before preparing the plan and making the agreement legal authority should be consulted. After the implementation of agreement, evaluation of the project is started [8]. The concept of shared and consolidated services to public education in Michigan was discussed. Although Public Act 63 required reports on the opportunities for additional shared services, recent political conversations have included the further consolidation of services and in some instances the consolidation of districts smaller than 2,500 students. In this report they discussed the factors related to students as reading apprenticeship, instructional consultation teams, data warehousing, gifted and talented, math and science center, homebound instruction, special education, career & technical education [9]. A pilot service is developed to subject resource discovery across a series of repositories of interest to the engineering learning and research communities. This pilot is being used as a test-bed to explore the practical issues that would be encountered when considering the possibility of full scale subject resource discovery services including shared services [10]. A discussion has been reported to up date governing board members on developments in relation to a strategic funding mechanism overseen by a new Shared Services. This is a concern report to have meetings scheduled for shared workforce planning, recruitment and development [11]. Setting priorities should be discussed periodically because there will always be more demand than supply. A group can also speak louder than just any one member agency. Sharing services should have timely group meetings [12]. These types of meeting and discussion resulted in great variety of opinions; some of these are as follows

- Transfer public services performed by municipal governments to the county level
- Provide greater financial incentives for shared services
- Provide for voter approval of shared services agreements
- Eliminate county government and transfer services to the State or municipal level
- Create a fairer method for apportioning costs in regionalized school districts

After these types of meetings, actions can be taken easily and in right direction [13].

There are basically two types of shared services: 1. Enterprise Utility Shared Services: services and applications common to all enterprise partners and managed by one entity for all agencies and jurisdictions to improve

service and/or reduce costs. 2. Multi-Agency Shared Services: services and applications required by more than one enterprise partner, and managed by one entity to improve service and efficiency [14].

Characteristics of shared service

At least four characteristics that distinguish shared services:

Collaborative service development: Agency business units are seen as partners with the shared service provider. As the partners concentrate their like-activities with the provider, they play a major role in defining shared service levels and expectations, prices, quality standards, performance measures, and the roles and responsibilities of the provider and consumers. These are included in the business case and service level agreement for each shared service. There is joint accountability for costs and quality through service level agreements.

Partner participation in governance: A governance structure, that includes partner input, guides decision making on service levels, scope, pricing, service delivery, performance management, operations, and continuous improvement.

Focus on continuous service improvement: There are ongoing efforts to improve service, reduce cost, or both. The benefits should accrue not only to the agencies but to public as well.

Location of the service provider: Service providers can be concentrated into a single location, centers of excellence, or embedded into each business unit in a physical sense, although they all report to the shared service provider's management, rather than to an individual agency's management. The service provider's organizational placement and physical location are driven by the optimization of the cost and the service level. The provider must possess the capacity, readiness, and executive support to serve.

Shared service center management structure

As an effective executive is needed [15] to run an organization, it is a strong and effective governance structure which is essential to the success of shared services implementation and operations with some defined areas for autonomy [16] (Figure 1). The governance structure ensures that:

Critical business decisions are made in a timely manner.

Services are deployed in ways that produce planned results.

The needs of consumer, provider agencies, and other stakeholders are satisfied by each service. Other committees which are essential to be a part of shared service to have successful sharing of services are a) Advisory Committee, b) User committee.

Under this governing body there comes a vice president. The organization chart is shown in Figure 2. Planning and control is a support function and does not directly deal with customers. Employee services department is responsible for recruitment of man power, their learning and training during job, their health care, their family housing as well as schooling of their children and so on. It is very important to provide desktop facilities to all employees as early as possible so that they can do their job efficiently and on time. These services are provided by IT department but support should be provided by original department. This will be discussed in detail further. Supply management service department take care of buying, handling supply of any kind, project dealing and warehouse management. Drafting, drawing and expertise services are responsibility of Engineering and project management services. General services department take cares of employees' general need collaborating with employee service department. It provides office service, housing, building maintenance, transportation and any welfare need of employee on any time etc.

IT services department is the key service department now to any shared services organization. It should provide Desktop Service bundle which include all necessary stationery and communication aid at arms length should be included in desktop service bundle. It also includes high-speed DSL internet and unlimited local and long distance landline phone, fax, scanning etc. Basic data and information related to job and work should be available to employee. Internet services contains email service, remote access, network service and for supervisor and administrators a dedicated server. SAP provision should be there in any IT department.

DISCUSSIONS

All these facilities increase the efficiency of the work team involved in providing services and running the organization and it should be on an equal opportunity basis but some exceptional are there which may vary from person to person and organization to organization. In discussion few published case studies on different aspects of shared services are provided. It is well formed and rich literature field and further reading for specific shared service may be sort as per one's need. Following case study provide the flavor of simulation and modeling of shared services comparing with alternatives. Motives for establishing Shared Service centers is discussed and compared with literature available. Considering the governance elements are discussed hereunder. The simulation advantages are related to the inclusion of statistical variability and interdependent factors that affect the performance, conducting 'what-if' analysis, and animating business processes to provide insight into the implications of alternative arrangements to the workshop participants.

Case Studies

Janssen and Joha [17] discussed Shared service centers (SSCs) and their gaining of the interest of politicians and public administrations. The motives for introducing a SSC in public administration are presented and discussed. They said that many services provided by one local department can be provided to others and by others with relatively few efforts. The introduction of a SSC is a major decision having a long-term impact on all the participants and is often competing with outsourcing arrangements. As such it is of essential importance to get a better understanding of the motives for introducing SSCs. First, by means of investigating an existing SSC in time, the initial motives for introducing a SSC have been compared with the accomplished benefits after realizing the SSC. The introduction of a SSC was driven by a series of complex, interrelated motives. To help decision-makers in making a tradeoff between SSCs and other sourcing arrangements they provided discussion on SSCs regarded as a specific kind of sourcing arrangement. They also compared the motives for establishing a SSC with the motives associated with outsourcing as found in literature. An SSC is not a panacea for everything, as the expected benefits rely on the combined advantages of both centralized and decentralized models, which are often conflicting. The SSC was introduced based on expectations about cost reduction and service improvement, which were not realized and benefits were found in other areas than initially expected. By bundling and concentrating services the SSC provides a means for retaining services in-house, still keeping a high degree of control over the services, however, also be able to reduce the complexity of control and to better focus on the core-business.

Grant et al [18] covered a variety of considerations and factors in designing governance and the elements and considerations required for shared service organizations in the public sector. The majority of literature examined supports the multi-tiered governance structure with the roles and responsibilities differing only slightly from implementation to implementation. They stated that as shared services organizations (SSO) become more popular as a service management and delivery option in government, properly defining and setting up the governance structure continues to be a key success factor. They also explored the options and issues to consider when selecting and implementing shared services governance including topics such as oversight, accountability, culture, management of resources, and of day-to-day operations. Shared services organizations are increasingly common in private sector companies and the particular challenges involved in the governance of an SSO in a public service context are highlighted and discussed. The three proposed time phases that outline activities and expectations during transition to an SSO are listed below (along with their characteristics):

6–18 months: SSO created, starts building identity. Previous process owners play high-level roles. Heavy focus set on communications to clients and staff alike.

18–36 months: Changes may involve relocation, process and system changes. Political and implementation risk is identified. Branding takes hold, roles and responsibilities are being set.

36–72 months: Integrated risk management, automation, SSO is self-funded from the shared services being provided. Steady state is achieved.

The other discussed designing governance for shared services organizations in the public service. The character of the leader and having both the thorough understanding of the expectations on objectives, timelines, and gains and the conferred decision-making power are key points. It states that the top leader needs to be someone well known and respected as a winner and a positive force in the change process. The leader chosen must have

sufficient power to deal with other obstructionist leaders or functional service heads that either thwart change or refuse to give up the proper people and resources required to centralize the services in question.

Janssen et al [19] conducted a case study and use simulation and animation models to evaluate shared services arrangements from a quantitative and qualitative point of view. By developing two alternative models, they use simulation to model and compare the existing situation with two alternative shared service arrangements and to compare the various options from a quantitative perspective. In addition, they use animation to communicate the model to the stakeholders involved, to allow them to evaluate the quality of the models. The models show sharing arrangements and the simulated implications. They focus on three municipalities that explored the possibility of sharing services in response to a budget reduction and the need to improve their customer service provisioning. The municipalities are located in the same area and are considered medium sized, although one of them is clearly bigger in terms of the number of employees. In all, they defined six performance measures, three of which had to do with efficiency, with the remaining three focusing on service levels. Efficiency is defined as the degree to which outputs are achieved in terms of productivity and input, while service levels are defined as the extent to which a supplying resource satisfies the customer requirements. The municipalities were interested in evaluating two options which differ primarily with regard to the number of shared services. Those two alternatives were 'full sharing' and 'partial sharing'. Following table show the advantages and disadvantages of their selection of full and partial sharing.

The simulation advantages are related to the inclusion of statistical variability and interdependent factors that affect the performance, conducting 'what-if' analysis, and animating business processes to provide insight into the implications of alternative arrangements to the workshop participants. The simulation, analysis and performance indicators provide insight into the performance differences of the alternative arrangements.

Following are the main points showing advantages of full sharing and partial sharing as well as disadvantages. The model steps are shown in appendix two.

Advantages Full Sharing Maximum profit of possible economies of scale One stop shop (no decentralized presence) Simple to understand responsibilities No discussion about creating local systems Municipalities can completely focus on their core-business Advantages Partial Sharing Limited customizations to the local situation Personal contact and dedicated attention Short distance to users Quick reaction time Public managers have grip on the service levels within their organizations Larger influence of individual municipalities on functioning of the service center	Disadvantages of full sharing Alienations from users Less reactive to users Long response time Less perceived service levels Less innovative as no direct user feedback Less grip on the functioning of the service center Disadvantages of Partial Sharing Extra resources necessary Per organization a one-stop shop Standardization is limited to shared activities Different interfaces between SSC and users More complicated control Still need to manage local parts; less focus on core business.
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Figure 3 shows three companies' data for common facilities/services (A,B,C,D,E, and F) available at there. It is the matter of fact to first find the sour area which is needed to be optimized. University ONE has more sour areas whereas University TWO has less. Institute ONE has F service which is badly needed to be expand or some sharing with other companies is required After identifying sour area when the model is applied in its simplest form to these areas, results show that University ONE is better to ask for University TWO to share its services with it. It will be totally benefited to University ONE. Following simplest model is firstly used to establish the sour area optimization between different companies i.e. $S_v = 1 / M_n * (w_{ft} * N_{ft} + w_{pt} * N_{pt})$ where S_v is the share able value (sour value), M_n is total number of facilities/services. W is the corresponding weight and pt , ft are full and part time. N is number of employees, users of any type etc. This simplest model can be expanded to numerous possibilities with addition of many instantaneous and time dependent variables. Better judgment and guess of future trends may be established to workout in better recourses and service management with fewer facilities available. Figure 4 shows the partial and full sharing of services by University TWO to University ONE. The sour value is reduced stepping down with partial and full sharing for all services. Service B is not the same case. It needs to be reversed or shared with some other company i.e. University TWO is not suitable for sharing for University ONE whereas from Figure 3 it is observed that Institute is better here for University ONE to talk about sharing of B even University TWO may participate in service B sharing with Institute ONE.

CONCLUSION

All is needed to work out hard to identify the problem, the sour area and the path to resolve that problem and minimize the souring to establish shared service centers. Therefore it is identified that shared service should have following major point to tackle and target. It must be equal or better than the existing service. Demonstrable and meaningful financial benefits must exist. Larger communities should not be favored over smaller ones. Loss of jobs fear and the loss of a personal level of service that might be provided by a fellow resident of the community may effect sharing. The shared services must drive cost and effort out of line and support services. It should include IT services. There should be no risk and time consuming should be less and problem should be resolved in reduced time as before. It is a rich area to research using different modeling approaches. The modeling of available data and its comparison with published data may help to identify motives and to establish governing management to enhance shared services centers efficiency. A sample questionnaire is attached in appendix one.

Figures

Delivering services

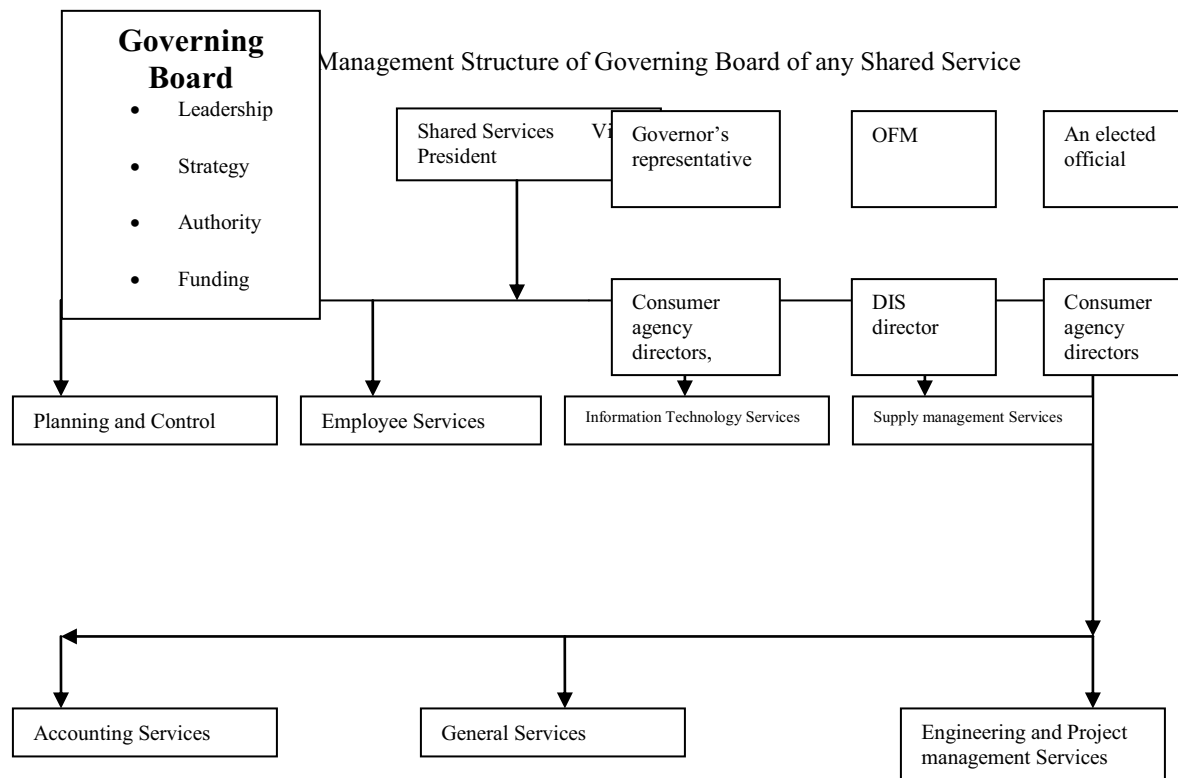


Figure 2: Shared Services: Organization chart

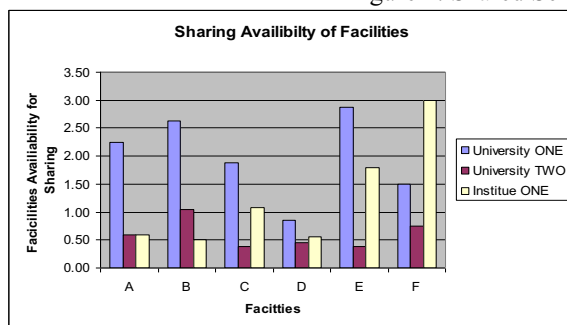


Figure 3: Sharing availability and sour areas of services

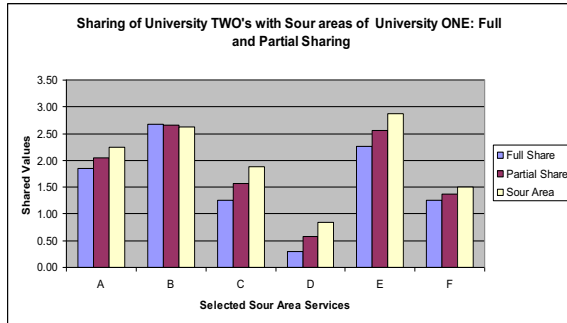


Figure 4: Simplest Sharing Full and Partial by University TWO with sour areas of University ONE

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APPENDIX ONE

SAMPLE	SHARED	SERVICES	SURVEY				Form
	Define Service						
	Define Service Center						
	Which option do you know to request service?						Option: one, two, three etc
	How many times you use telephone during 2009?						
	How many times you use Internet during 2009?						
	During 2009 how many times you request for PC service/training?						
	During 2009 how many times you request for Medical Treatment?						
	During 2009 how many times you request reimbursement of traveling?						
	During 2009 how many times you requested overtime claims?						
	During 2009 how many times you request housing maintenance?						
	Rating						Rate: minimum-maximum
	Rate employee regarding answering?						
	Regarding Fulfilling request?						
	Regarding their understanding of your problem?						
	Regarding their dealing?						
	Regarding their promptness?						
	Regarding their availability?						
	Regarding their knowledge how to solve problem?						
	Regarding their time taken to solve your problem?						
	Regarding their responding to your calls/complaints?						
	Overall rating						
	Your satisfaction Rating						
	Variety						
	Frequency						
	Speed						
	Quality						
	Offering						
	availability						
	processing claims						
	feedback						
	follow-up						

APPENDIX TWO

PROCESS MODEL STEPS [19]

- 1.Problem Identification
- 2.Objectives
- 3.Data and Model Concepts
- 4.Model Translation
- 5.Varification
- 6.If YES GOTO step 7if NO GOTO step 4
- 7.Validation
- 8.IF NO GOTO step 3
- 9. Experimental Design
- 10. Production and analysis
- 11. More runs if YES GOTO step 9
- 12. IF NO GOTO 13
- 13 DECISION

SOCIAL MARKET ECONOMY

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ABSTRACT

Old discussion among economists about the market oriented and planned economy has definitely finished with the end of the cold war, the destruction of the Berlin Wall and the collapse of socialism. There is no so strong economist today who could plan the economy of a country. There are no economists who would aim to have the country from the 60s of the last century. But there is also less economists who want laissez-faire, market, deregulation, liberalization and the country from the 80's the two sides supporting both globalization and anti-globalization are questioning. All this leads to a new discussion of the regulation in the form of finding the third way of a market oriented economy, which is, until now, followed by discussion about the best form of capitalism.

INTRODUCTION

In the modern world, especially in the Central and Eastern Europe, it is dangerous, to equalize the market economy to well-being, which market system created in the Western and Southern Europe. Even when the market economy becomes superior everywhere in Europe, the differences in well-being can remain the same or, possibly, become deeper. No illusions should be made that in the near future everyone in Europe will have long expected welfare. One can remain poor despite the introduction of market economy. Social balance simply cannot succeed everywhere. Social differences are, therefore, inevitable, as democracy and the market do not automatically lead to the well-being.

As everywhere and so far, the market economy is not indigenous plant, "growing always and everywhere. We should be just careful not to pull out the roots." However, the market, comparing with the cultivated plant, requires care and climatic conditions. Market economic system requires a lot to achieve its full spread development. Extraordinary efforts, time and investments are imperative for an individual, company, country and society. In addition, it is not certain that flower market economy will automatically ensure social welfare. The market is therefore only necessary (needed and useful), but not sufficient condition for the flourishing prosperity. Wealthy societies are regulated by market principles, but there are numerous poor societies applying market principles. The market here does not explain the differences in well-being, such as regional differences in the standards cannot be explained by any climate, geographical location, historical development, tradition, religion, race or customs. Market, even in identical economic system does not give the desired results. A good example for this can be the European Union (EU). But the power of the countries economic and an individual's social well-being does not depend exclusively on market-oriented economic system of society.

A NEW WAY OF SOCIAL MARKET ECONOMY

So far, economically always successful have been in the long run those that subordinated to economic interests in market economic system (Japan, USA, Germany). This is a "mercantilist gift of the European spirit" (Miner), in which religion and science, and art, and philosophy, and the market, and the country are in the service of economic success. Operating in cost-effective, efficient, flexible and market way is the economic power in the development of material existence.

Economic and business culture in a market economy relieves productive forces to improve the quality of material living standards. However, market-oriented economy carries different outputs and quality in Europe. In Greece it is different than in Scotland. In Sweden is not the same as in Italy. Germany is far from Spain. Switzerland stands out from Turkey. Simply, there is no alchemy between the social and economic system that will bring Central and Eastern Europe, new prosperity. This stands r Russia, Poland, Hungary, Serbia and for Germany and the EU.

Connecting social substance to the economic system and the market is a challenge in the future, in which the Europeans must have available an instrument of "private" ownership, which promotes standard. Competition between the systems is finished. An aggressive market economy won naively planned economy rather than the progressive idea of compulsory victory of socialism and self-government, the question is if this programmed new disappointment. The question is crucial, because the economic impact of market-oriented Europe will continue to vary by regions. "In fact, everything will be clear, that market economy is not a magic potion, which enriches all who drink it. A market economy or private property: both are just the instruments and nothing more than that. the way they will be handled, depends entirely just on the ability and willingness of users, which are usually effected by some other factors that in short-term can not be avoided - if possible at all. A market economy and private property ", are the values themselves. They can motivate, assist in development and release. They do not require certificate of the "great economic success. "

Professional (public) discussion of the relationship between the company and the state, and the economy and society, is as old as economics itself. The fall of "socialism" and experiment performed with deregulation have just turned the course of discussions (long-term) in the other direction. Illusions have been broken with devastating consequences: deficits in the balance of payments and government budgets are deeper, streets, buildings and cities rustier, social security is poor, population uneducated, citizens are poorer, industry obsolete. But it is real proof that spontaneously developed market economy cannot sprout or arises on its own. For its development too important and necessary is effective national framework. Simply, there will be no market economy without strong state's support. Prominent theorist of competition Porter (National competitive advantages) believes that the competitiveness of firms and national economies depend on the four general features that characterize the national environment: "First, terms such as number and qualifications of the labor force, availability of capital, scope and quality of infrastructure, quality of education and school system. Second, the so-called. terms of consumption, which are, the number, structure and awareness of the quality of domestic consumers, including the state as the buyer. Third, the strength of the industrial complex in similar industries, cooperators and related sectors (services). Fourth, the existing companies' strategies (the concept of profitability or market share, securing long-term stability) and the power of the domestic competitive influence. "These are the fundamental characteristics of the environment in which the educated system is a modern factor of competitiveness. That is why investing in education will be an important factor of future competition. The task of the state, in this context, is to create an environment in which innovative economy creates demand for new employees. Therefore, the construction, expansion and structuring of educational and research institutions and diversification of the school infrastructure are the new promotional power of reviving the competition. Modern economic sciences already thinking about leaving the principle of laissez-faire and laissez-passar, which has divided the economists in two groups - supporters and opponents of this principle of economic policy the classical and neoclassical schools of economic thought. "Laissez-faire, laissez-passar", as a principle, again returned to the scene as part of the so-called Regan mix and Thatcherism following the receipt of conservative economists Friedman and Laffer.

Renaissance of liberals options is reflected by a drastic tightening of social programs, lowering tax rates, deregulation and privatization, financial liberalization, limiting the economic power of trade unions. The race for profit has become on of the most important features of modern man with extraordinary respect. Deregulated global trade in securities, outrageous companies' sales and unrestricted discretion of managers in late 80's and early 90's indicate a new triumph of market economy in which the market principle is again approved as "the most important, if not the sole regulator of society." This "system" is verified, even when of the substantial structural changes fail. However, after the failure of "communist-socialist" economic reconstruction, as glorified alternative "to capitalism," new left-liberals economists present the thesis that "the utopia of a market economy, which is regulated by itself, represents only the ideological basis for American dominance in the West during the cold war "(Kuttner). This may be the beginning of the end of the previous reign of the conservative intellectuals in the economy, and the birth of a new era of left-liberals options. The belief in economic liberalism

is now a good way to completely disappear, as the prosperity of the people is not based only on greedily run for their own use but also on withdrawal from profit egoism in favor of the environment. The gradual return of industrial policy in the U.S., the social-democratization of economic policy in Germany, slightly more important economic role of the government in Great Britain and Japan, and restrained destruction of public sector in France and Sweden are indicating recognition of the third way between free "capitalist" market economy and socialist planned economy (Nowotny). In fact, it's oriented market economy. This basically marked new regrouping of economists who considered (for ten years) deregulation, if possible of the entire economy, the sole leitmotif of the economy. For this reason people seek for regulation to be present (in air traffic as well as in financial markets). "Today, better reputation follows those economists not seeking for smaller or bigger countries but seeking for better regulation".

Market forces during the 80-year won the largest free space in the world. But in the business world it is proved how cooperation with competitors (strategic alliances) brings more success to the companies. The specific mix of strict orientation on exports and strong state intervention in the economy (South Korea, Taiwan, Singapore and Thailand) are competitive instruments of the country bearing far stronger evidence from economists who tried to solve the problem of competitiveness with the theory of comparative advantage of the British classicist Ricardo. According to Porter the country is only successful if it manages to create and improve the most important production factors such as well-trained people and scientific base. The importance of the quality of public investment in education and infrastructure, for any company that seeks to do business more competitive, is more important than lowering taxes and salaries, as productivity cannot be lifted up by lowering wages. Accordingly, the company with low earnings (and with a poor labor) cannot be permanently competitive.

Competition in the modern conditions has become "boring pursuer on adaptation, innovation, risk and efficiency. The efficiency of economic system, however, depends on whether the system of rewards and punishment associated with the competition, is socially acceptable. Competition rule is seeking to provide high productivity, economic subjects rationality, technological development and increasing participation in the international division of labor (the price competitiveness on the world market), social policy aims, however, to ensure social justice whose ideal is equal distribution of income and wealth in society. The gain is, in this context, the reward for the willingness to take risky entrepreneurial competition, which forces the companies to adjust new created changes in the world market. [Forcing the adjustment, however, puts additional political pressure to ease the tension either through subsidies either by limiting competition. That is how emerges regulatory principle of social intervention which degrades competitive performance by subsidizing exports, protectionism, tariff protection and import quota... In competition regulations, income redistribution by the state becomes a measure of social justice both for companies that participate in the competition (by providing a fair income, although "salary" is not "proportional to performance) and for workers of given companies that are" tied "social groups. In this way, the process of acquiring income in a market economy (with regulation competitors) offers a social policy area for diverting income by state, which adjusts the distribution of income by social benefits. This, basically, weakens competition in the domestic and international market with extortion re-states distribution of income subsidies, export incentives and non-economic suitability. Accordingly, in the effective market social justice is in the background of state regulation, not among priorities. Competitive performance is the only legal basis for creating of social policy, because only the verified income on market represents the material basis of the redistribution of income and social diversion.

In the current economy there are no solid standards and landmarks, and modern politics lack a sense of responsibility for the common good. Therefore, the balance of society, which is always social, loses and disappears. This was at least the conclusion of an international meeting in Osnabrück on the theme "Business-oriented science and research in Europe in the 90s". In the period from 1985 to 2010 the world faced the waves of civil-conservative social policy, which started the process of privatization, individualization and commercialization aiming to control politics, society, and economy. Everything was under motives: (1) more the market - less government, (2) performances must be profitable again, (3) The capital must become more important factor than labor, (4) less inflation - more unemployment, (5) government's back to its real responsibilities, (6) indifference toward social problems and so on. And this is what could be called postmodern. And this just proves that policy of privatization and commercialization led to the extreme degree of individualization with definitely lost values, landmark, visions of the common good, responsibilities for man, the sense of community. Now the companies are trying to confront to disoriented individualism making the so-called corporate identities, as micro philosophy. However, commercial individualism threatens to evolve into a cultural

cynicism and a general skepticism about the value. The so called falling down into freedom with group therapy (Nietzsche) is the "grandiose" victory of the liberal project.

Social insensitivity of market economy is not, nor can it be, the rule for those who carry out reforms. Selection must be made between implosion or explosion. Accepting the liberal project of privatization and commercialization is one thing, and it is another thing to recommend nation longer way to go, , time-burdened, like capitalist grassroots development. "Radically release price is a good example for those reformers, who make small steps and follow the social interest.

Any other price reform policy leads inevitably to such a structure of enterprises, resembling mafia, the enormous inflation and social misery to the widest scale. By the rule, this should be abandoned later on, flying off the reform.. at that point of time there will be no one to repay loans, which are now easy to promise and simply to approve. Then the state property, which should belong to the people in the future, has no economic significance, since without social stability securities mean nothing. It is therefore important to make a social balance, which, with its minimum, should follow the development of social market economy. Freedoms and constraints, privatization and public guidance, interest and rationality, commercialization and solidarity, wealth and poverty, personal and general are terms in balance, making this balance over and over again.. Only socially balanced society can guarantee political stability necessary for a successful economy, which is the core of the social market economy. Otherwise, selfishness, jealousy and prejudice can become too dangerous if they completely rule maxim of economic activity in the future.

In modern debates on European-style market system there are generally three main currents: (1) first one intercedes the traditional free market, (2) other intercedes neo-liberal model of social market economy, and (3) The third intercedes diligence variant. Free market system is considered to be the most effective means of creating wealth, but wealth must be used more evenly distributed through state intervention. the government must intervene in the distribution, making equal opportunities, correcting market imperfections (due to short-term horizon given by the market impulsion), not supplementing market disadvantages (public goods and externalities) and encouraging some certain economic sectors (for which this is considered to be better solution than exposure to foreign competition). Representatives of social market economy, however, believe in the benefits of free markets, but without relying on his spontaneous development. Proponents of free markets emphasize moral values and benefits of civil society limiting the power of the state. Intervention heritage is located in the social policy, health care, education, a community of coal and steel, technology and research development, and environmental protection policy. Proponents of social market economy intercede strict observance of the law of competition and monetary authorities autonomy in relation to the political sphere (which is close to traditional liberalism). Speaking about the treatment of the tax, international trade and domestic markets, they promote the need for government intervention and state regulation. Synthesis of these concepts seems to be quite possible and desirable, since the introduction of social dominance into the market laws neither automatically mean entrance of value of distributive justice nor social cohesion means a process of state growing.

But the modern world is characterized by the fact that European capitalism has lost its historical acuteness although the basic principles of capitalism remained practically the same everywhere (the free market, private property, the law of comparative advantages, legal and public intercepting of investment). Beside these, there is a conflict between European, American and Japanese capitalist system taking place on a global scene. Those are different systems with different objectives, priorities, institutions and values, mutually competitive. The measure of success in a competitive run is to increase productivity and improve living standards, which prepare people for the future.

European economies are losing the economic and competitive ability because of the huge spending on so-called social state, which still keeps the social peace upon which economic prosperity relies. But "bad" economic time attacks even metaphors of the welfare state. Germany was among the first European countries tried to abolish the payment of compensation for so-called "bad times" that construction workers get from 1959 from state budget (winter time from November to March) during the coldness that disables work. Now those same workers invite ministers to the scaffolding to spend some time "in practice when winds flog and frost pinches. Nevertheless, Germans and Swedes become increasingly wear that shorter working hours, longer and longer vacations and more frequently increases of wages and salaries (including employer contributions) do not

represent "good instruments" for improving the competitiveness of the economy because there is no economic future if the country is organized as a collective pool for free time. On internal scene, economies are working hard to find the ways to solve different conflicts regarding distribution, surrounded by increased spending and funding the welfare state. Transitional period of capitalism reveals that the market system survived colossal changes that affect the fundamental characteristics of the economy, which "combines" impressive number of syndromes: unprecedented unemployment, long-term stagnation, the sharpest recession, total crisis in the industries (from "mature auto industry " to the avant-garde "electronics industry"), significant discrepancy of economic policy, financial policy-minded an coordination, inexperience about man's environment, speculation in the economy and finance, irrational management of resources, etc.). After eight decades, characterized by unstable fiscal policies and flexible monetary policy resulted in a ninth decade characterized by a shift to restrictive monetary and fiscal policy, which has a direct impact on reducing global economic growth and indirectly on reduction of tax revenues and the restoration of the state budget deficit. But serious analysts warn about the seriousness of well-organized thesis that inflation in the long term can become political and economic widely accepted. The so-called reflation almost reflects the possible global inflation.

International connectivity during the 80's and 90's, gives new shine to the global economy, which describes the internationalization of financial markets, the spread of transnational corporations, the process of liberalization of markets, collapse of national monopolies, the creation of new rules of relations between the public sector and private companies, and the free circulation of goods, services, capital, labor, technology and information. However, in the process of economic globalization attention should be paid to the absence of effective rules and mechanisms for the implementation of medium-term scenarios for globalization, as there is a risk of interdependence degeneration and planetary mess causing fears of massive re-location of economic activity.

Left current shrinks in front of the right current. Individualism has broken collectivism. Liberalism has destroyed interventionism. Time of deregulation, liberalization and re privatization was in the function of the growth of individualism, which follows the surprising reductionism of Christianity, which is not incompatible with capitalism. Capitalism is rushing somewhere again accompanied with democracy and political pluralism, which is less accepted with enthusiasm in growing number of countries. Creating wealth is "independent" living theme lightening the principle of efficiency of modern humanity in a different way. The relatively successful completion of the Uruguay Round should now perpetuate the acceleration of production, increased capital accumulation and consolidation of the dominant economic forces of the market. However, the economic history of modern mankind does not end with the triumph of free market. The modern age wants to get rid of the accompanying frustration, un orient failings and unpredictable shocks. Global dissatisfaction insists to create the path to a democratic, wealthy and prosperous future. Simply, the economic world should be prepared for further growth without high inflation without high unemployment and structural imbalances. The people are fed up with doctrinal learning, because the poor in the 20 century become even poorer in relative and absolute terms. Even the middle class, who benefited most from economic growth, fears because of possible loss, as well as small and medium-sized businesses from the devastating effects of global competition. If the fruits of "rejuvenate" capitalism should indeed reach the last, the bottom quarter of the Western society (Pyramid of income), welfare capitalism must find new methods of structures monitoring at a price that does not exhaust the productive forces of the economy. Price welfare must be controlled and productive social engineering created by the macro-economic control. Existence cannot be a victim of structural reforms or a burden to employers. Social existence - in the form of "capitalism at Christmas" - must be in the middle between individual entrepreneurship and the state welfare. And that is exactly the new, third way of social market economy.

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INVESTMENTS IN ENVIRONMENTAL PROTECTION TECHNOLOGIES AND THE PARADOX OF ENVIRONMENTAL TAXES AND SUBSIDIES

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ABSTRACT

Since Pigou, it is common sense in economic literature that social – and later on environmental – policy can be made by using taxes and subsidies. In order to adjust to these policy instruments under the conditions of imperfect markets, this paper presents an approach to valuating investments in environmental protection technologies and to examine the determinants of their price ceiling. This price ceiling depends on the (corrected) net present values of the payments and on the interdependencies arising from changes in the optimal investment and production programmes. Though we can confirm the well-established results of environmental economics for a single investment, environmental taxes and subsidies may have counterproductive effects on investments in environmental protection technologies. In effect, all the (sometimes contradictory and unexpected) consequences of environmental taxes and subsidies can be interpreted in an economically comprehensible manner.

INTRODUCTION

Since the times of *Pigou* (cp. Pigou 1932, pp. 172, 174, 183, 224) it is common sense in economic literature that social – and later on environmental – policy can be made by using taxes and subsidies. According to related literature, setting a price for the use of environmental resources or capacities leads to their consideration in economical decisions: the individual compares abatement costs to the costs of using these resources/capacities and, consequently, may avoid environmental harmful behaviour. Hence, due to environmental policy using taxes and subsidies, investments in environmental protection technologies can become economically significant. In this context, the paper examines to what degree changes in environmental policy can actually provide financial incentives for investing in environmental protection. Unfortunately, traditional and neoclassical models for investment appraisal (e.g. cost oriented approaches, NPV- or DCF- methods, real options approaches), can only partially cover the particular nature of such investments and their alternatives:

Since investments of this kind affect production, it is necessary to derive the payments and constraints required for a financial valuation from production planning with special regard to environmental taxes/subsidies and joint production. On this basis, we will develop a valuation model and examine the determinants of the price ceiling for an investment in environmental protection technologies. This model considers activity level-dependent and -independent payments and treats the indivisibility of the investment to be valued. Due to the fact that many of the impacts of pollution on the environment have yet to be explored and because of changes in environmental policy and in ecological awareness, this analysis also takes uncertainty into consideration.

Employing duality theory of linear programming, it can be shown that the price ceiling depends on the (corrected) net present values of the payments and on the interdependencies due to changes in the optimal programme. Sensitivity analysis provides information about the sometimes contradictory and unexpected consequences of changes in environmental policy. Nevertheless, all these effects can be interpreted in an economically comprehensible manner and are demonstrated in an example. A conclusion summarises the main results.

FINANCIAL VALUATION OF INVESTMENTS IN ENVIRONMENTAL PROTECTION TECHNOLOGIES

Background – Financial Evaluation on Imperfect Markets under Uncertainty

In economic literature, several studies examine the consequences of environmental policy on investments in environmental protection technologies. Some of these refer to a single sector or the whole economy (cp. Reinaud 2003; Zhao 2003; Knutsson et al. 2006; Laurikka and Koljonen 2006; Buchner 2007; Blanco and Rodrigues 2008). Others take an enterprise point of view and employ different techniques for project appraisal. Very common are cost-based approaches (cp. Reinaud 2003; Knutsson et al. 2006) and the use of discounted cash flow (DCF) models, which calculate the present value of an investment by discounting future cash flows at an appropriate discount rate (cp. Chakraborty 2004; Sekar et al. 2007). In order to cope with (imaginary) shortcomings of (net) present values (NPVs), especially concerning flexibility and uncertainty, Laurikka (2006), Laurikka and Koljonen (2006), Yang and Blyth (2007) use real options analyses and simulations.

However, while the discount rate may be adjusted to uncertainty, DCF models as well as real options analyses refer to **perfect markets** – a condition that does not apply to most companies (in particular, companies cannot usually borrow money at lending conditions, and capital is restricted); the best opportunity is not always determined on financial markets. Instead, for manufacturing companies it will often be an investment in other technologies, producing more or less of the desired outputs, or trade of emissions allowances. Hence, on imperfect markets the discount rates are endogenous to the investment programme, and the (net) present values in most cases have to be corrected for restricted capacities, as will be shown in section 3.1. Under these circumstances neither “ordinary” (net) present values merely calculated with exogenous interest rates (even if adjusted to uncertainty) nor real options values are adequate methods for appraising technology investments – especially, if taken into account that the characteristics of investments in environmental protection technologies normally may not fulfil all the other prerequisites for applying option pricing models either (cp. Klingelhöfer, 2009, p. 371): markets are not complete; short selling of (installed) machines and production lines is generally not possible; the underlying asset (i.e. the investment) is normally neither divisible nor following a distinct (stochastic) price process; the effects of technology investments and the consequences of interdependencies on the entire production are individually different. Thus, both alternatives, the construction of a replicating portfolio with production plants as well as finding a twin asset that is perfectly correlated with the underlying, are likely to fail. (Nevertheless, from a mathematical point of view, it can be shown that certain discrete option pricing models can be derived as special cases of the model presented in this paper if their prerequisites are fulfilled; cp. Klingelhöfer, 2009, p. 373).

Consequently, to value investments in environmental protection technologies and to examine the impact of environmental taxes and subsidies from a company point of view, we have to consider the following restrictions: Resulting from restricted capacities (due to budget constraints, production constraints or environmental policy), every activity on **imperfect markets** can have interdependencies with other decisions. Especially for capital intensive projects, budget constraints may force the investor to give up alternative investments or to limit production. On the other hand, the revenues of production may extend the possibilities for investments and finance – and, thus, for environmentally beneficial investments as well. Hence, a financial valuation needs to derive the required payments and constraints from production theory and production planning with special regard to environmental policy and joint production. This makes it impossible to calculate the value of an investment only by discounting its payments with a single market interest rate. Instead, the endogenous marginal rates of return of the best alternatives are necessary for theoretically correct valuation. Also, it is not possible to determine the profitability of an additional object merely by calculating net present values: the realisation of additional objects may lead to capacity shortages and, therefore, to changes in decision relevance of other objects or capacities (i.e. the binding restrictions may change).

Consequently, to assess the degree of profitability of an additional single investment or activity within imperfect markets, we have to compare the situation after investing (i.e. the *valuation programme*) to the situation before (i.e. the *basic programme*) (cp. Hering, 2006, pp. 57-59; Jaensch, 1966, pp. 664-665; Klingelhöfer, 2006, pp. 59-91; Matschke, 1975, pp. 253-257, 387-390). If the maximum value of the valuation programme is greater than in the basic programme, it is reasonable to invest. Ensuring this with a minimum withdrawal constraint, the valuation programme finds the maximum payable price p for the investment.

Uncertainty, resulting from either reiterative changes of environmental policy, shifts in ecological awareness or altered conditions on liberalised markets, etc., can be taken into account by using decision trees (cp. Klingelhöfer 2003, pp. 284-291; 2006, pp 59-83; Magee 1964a; 1964b; Mao 1969). Starting with the realised and, therefore, known state $s = 0$ (denoting the state actually realised in $t = 0$), we obtain a set $S = \{0; 1; \dots; S\}$ of possible

states s – “organised” in a tree structure until time horizon $t = T$. However, the states being consecutively numbered from $s = 0$ to $s = S$, the two-dimensional tree of states for each point in time can be transformed into a one-dimensional mathematical structure. Then, the valuation considers payments in *all* possible states. Information on probabilities, means or variances is not necessary, as simple dominance considerations are sufficient (it only needs to be known which states can possibly occur; the probability must be greater than zero, but smaller than 1). Therefore, the principle of *Bernoulli* and its axioms are not needed.

Derivation of the Payments from Production Planning

Every production, especially with regard to the environment, is characterised as joint production: Using activity analysis (cp. Debreu 1959, pp. 37-49; Klingelhöfer 2000, pp. 222-252, 417-442; Koopmans 1957, pp. 71-83; 1959; Nikaido 1968, pp. 180-185), a singular realisation of the production process β (for example, one hour) – the so-called *basic activity* B, β – consumes a combination of several kinds of m inputs r_μ (e.g., fuel, labour) and produces a combination of n wanted and unwanted outputs x_ν (e.g., products, electric power, heat, emissions, waste). Thus, a basic activity is defined as a vector of m input and n output commodities φ_ε :

$$(2.1) \quad \underline{\varphi}^{B,\beta} = (\varphi_1, \dots, \varphi_{m+n})' = (\underline{r}'; \underline{x}')' = (r_1, \dots, r_m; x_1, \dots, x_n)' \geq \underline{0}$$

(Underlining a variable denotes a vector and the prime (the symbol $'$) the transposition of a vector.)

Then, *every possible production* of a technology set T is a linear combination of the q basic activities with non-negative coefficients λ^β describing their levels.

$$(2.2) \quad \forall \underline{\varphi} = (\underline{r}'; \underline{x}')' \in T: \quad \underline{\varphi} = \sum_{\beta=1}^q \underline{\varphi}^{B,\beta} \cdot \lambda^\beta$$

Then, the Γ *production and environmental restrictions* can normally be written as follows:

$$(2.3) \quad \sum_{\beta=1}^q \sum_{\varepsilon=1}^{m+n} a_{\varepsilon\gamma} \cdot \varphi_\varepsilon^{B,\beta} \cdot \lambda_s^\beta \leq b_{\gamma s} \quad \forall \gamma \in \{1; 2; \dots; \Gamma\},$$

Introducing a *price system* with positive prices p_ε for the (desired) input of waste and the output of products, prices equal zero for neutral inputs and outputs (e.g. air and water in certain cases) and negative prices for the input of (traditional) factors of production (primary commodities such as material, labour, or fuel) and the output of waste and emissions delivers the *contribution margin CM*:

$$(2.4) \quad CM(\underline{\varphi}) = \underline{p}' \cdot \underline{\varphi} = \underline{p}' \cdot \sum_{\beta=1}^q \underline{\varphi}^{B,\beta} \cdot \lambda^\beta = \sum_{\beta=1}^q \sum_{\varepsilon=1}^{m+n} p_\varepsilon \cdot \varphi_\varepsilon^{B,\beta} \cdot \lambda^\beta = CM(\underline{\lambda})$$

Under the conditions of joint production, this contribution margin CM is process specific. It has to be modified for the *taxes* $t_\varepsilon \geq 0$ and the *subsidies* $t_\varepsilon \leq 0$ for the commodities φ_ε :

$$(2.5) \quad CM(\underline{\varphi}, \underline{t}) = (\underline{p} - \underline{t})' \cdot \underline{\varphi} = \sum_{\beta=1}^q \sum_{\varepsilon=1}^{m+n} (p_\varepsilon - t_\varepsilon) \cdot \varphi_\varepsilon^{B,\beta} \cdot \lambda^\beta = CM(\underline{\lambda}, \underline{t})$$

Then, an *investment I in environmental protection technologies* such as filters for process q (w.l.o.g.) has the following effects:¹

- The input/output vector $\underline{\varphi}^q$ of process q changes to $\underline{\varphi}^{dir,I}$ of the inputs and outputs directly obtained from or delivered to the outside by the combination of the filtered process I and the filter itself (assuming that they are working at the same activity level λ^I)².
- There may be new constraints for the outputs $\underline{x}^{Filt,I}$ accumulated in the filter.
- The prices \underline{p}^{Filt} , taxes and subsidies \underline{t}^{Filt} for the outputs $\underline{x}^{Filt,I}$ accumulated in the filter may differ from the other prices \underline{p} and taxes/subsidies \underline{t} .

Therefore,

- we get for the *contribution margin CM* of the cleaned production and the filter instead of (2.5):

$$(2.6) \quad CM(\underline{\varphi}, \underline{t}) = \sum_{\beta=1}^{q-1} \sum_{\varepsilon=1}^{m+n} (p_{\varepsilon} - \tau_{\varepsilon}) \cdot \varphi_{\varepsilon}^{B,\beta} \cdot \lambda^{\beta} + \sum_{\varepsilon=1}^{m+n} (p_{\varepsilon} - \tau_{\varepsilon}) \cdot \varphi_{\varepsilon}^{B,dir,I} \cdot \lambda^I + (p_v^{Filt} - \tau_v^{Filt}) \cdot x_{\varepsilon}^{B,Filt,I} \cdot \lambda^I,$$

- and the Γ production and environmental restrictions (2.3) will be replaced by:

$$(2.7) \quad \sum_{\beta=1}^{q-1} \sum_{\varepsilon=1}^{m+n} a_{\varepsilon\gamma 1} \cdot \varphi_{\varepsilon}^{B,\beta} \cdot \lambda^{\beta} + \sum_{\varepsilon=1}^{m+n} a_{\varepsilon\gamma 1} \cdot \varphi_{\varepsilon}^{B,dir,I} \cdot \lambda^I \leq b_{\gamma 1} \quad \forall \gamma 1 \in \{1; 2; \dots; \Gamma_1\}$$

$$(2.8) \quad \sum_{v=1}^n a_{v\gamma 2} \cdot x_v^{B,Filt,I} \cdot \lambda^I \leq b_{\gamma 2} \quad \forall \gamma 2 \in \{1; 2; \dots; \Gamma_2\}$$

Model for the Financial Valuation of Investments into Environmental Protection Technologies

According to section 0, the first step to assess the degree of profitability of an investment on imperfect markets under uncertainty, the *basic programme*, calculates the maximum value of the situation *without* realising this investment. The maximum value can be operationalised by maximising the sum SWW of weighted withdrawals $w_s \cdot W_s$ subject to the constraints of investment and production, where $s \in \{0; 1; 2; \dots; S\}$ denotes the present state and the S future states (Klingelhöfer, 2009, pp. 373-374).³ Deriving the constraint system, we have to consider that investments in environmental protection technologies affect production. Therefore, it is necessary to integrate contribution margins, production constraints and the payments resulting from environmental policy. While the production constraints become directly part of the constraint system, the contribution margins CM according to (2.5) modify the investment programme's liquidity constraints (Klingelhöfer, 2006, pp 127-130, 172-177, 205-207, 265-272): regarding all the payments from production and environmental policy, z_{js} from the other projects inv_j (e.g. credits or loans), the payments uz_s which are independent from production quantities and the investment programme (e.g. additional individual deposits, fixed rents, taxes or payments determined in former periods), and the withdrawals W_s , liquidity must be guaranteed – otherwise the company becomes insolvent. Thus, we receive the following basic programme as a linear programming problem:

$$(2.9) \quad \mathbf{max. SWW}, \quad SWW := \sum_{s=0}^S w_s \cdot W_s$$

Subject to:

Liquidity constraints (capital budget constraints) for the $S+1$ states s (cp. (2.5)):

$$-\sum_{j=1}^J z_{js} \cdot inv_j - \sum_{\beta=1}^q \sum_{\varepsilon=1}^{m+n} (p_{\varepsilon s} - t_{\varepsilon s}) \cdot \varphi_{\varepsilon}^{B,\beta} \cdot \lambda_s^{\beta} + W_s \leq uz_s \quad \forall s \in \mathcal{S}$$

Γ_s production and environmental constraints γ for the $S+1$ states s (cp. (2.3)):

$$\sum_{\beta=1}^q \sum_{\varepsilon=1}^{m+n} a_{\varepsilon\gamma s} \cdot \varphi_{\varepsilon}^{B,\beta} \cdot \lambda_s^{\beta} \leq b_{\gamma s} \quad \forall \gamma \in \{1; 2; \dots; \Gamma_s\} \quad \forall s \in \mathcal{S}$$

q activity level constraints for the $S+1$ states s :

$$\lambda_s^{\beta} \leq \lambda_s^{\beta, \max} \quad \forall \beta \in \{1; 2; \dots, q\} \quad \forall s \in \mathcal{S}$$

Restrictions of quantity of J other investment objects and financial transactions:

$$inv_j \leq inv_j^{\max} \quad \forall j \in \{1, \dots, J\}$$

Non-negativity conditions:

$$inv_j, \lambda_s^{\beta}, W_s \geq 0 \quad \forall j \in \{j = 1; \dots; J\} \quad \forall \beta \in \{1; \dots; q\} \quad \forall s \in \mathcal{S}.$$

With the known solution of the basic programme (2.9), the *valuation programme* calculates the maximum payable price p_I which can be paid for an investment I in environmental protection technologies for process q (w.l.o.g.) under the condition that the investor's utility may not be lower than in the basic programme. Besides this different objective function VAL, it has nearly the same structure as the basic programme. However, we have to consider a few changes regarding investment I :

- In addition to the basic programme we have to take into account all the activity level-dependent and -independent payments caused by this investment. This means that we have to consider not only the adjusted contribution margins according to (2.6) instead of (2.5), but also the price p_I of the investment and other activity level-independent payments z_{I_s} (e.g. for its installation).
- We may have *new constraints* for the outputs $\underline{x}^{Filt,I}$ accumulated in the filter.
- A special constraint ensures that the sum of weighted withdrawals of the new investment programme (i.e. the *valuation programme*) is not less than before (= in the optimal solution SWW^{opt} of the basic programme).

Then, the valuation programme results as follows:

$$(2.10) \quad \max. VAL; \quad VAL := p_I$$

Subject to:

Liquidity constraints (capital budget constraints) for the S+1 states s (cp. (2.6)):

$$\begin{aligned} & - \sum_{j=1}^J z_{j0} \cdot inv_j - \sum_{\beta=1}^{q-1} \sum_{\varepsilon=1}^{m+n} (p_{\varepsilon 0} - t_{\varepsilon 0}) \cdot \varphi_{\varepsilon}^{B,\beta} \cdot \lambda_0^{\beta} + W_0 + p_I \\ & \leq uz_0 + z_{I0} + \sum_k \left(\sum_{\varepsilon=1}^{m+n} (p_{\varepsilon 0} - t_{\varepsilon 0}) \cdot \varphi_{\varepsilon}^{B,dir,I} + \sum_{v=1}^n (p_{v0}^{Filt} - t_{v0}^{Filt}) \cdot x_v^{B,Filt,I} \right) \cdot \lambda_0^I \\ & - \sum_{j=1}^J z_{js} \cdot inv_j - \sum_{\beta=1}^{q-1} \sum_{\varepsilon=1}^{m+n} (p_{\varepsilon s} - t_{\varepsilon s}) \cdot \varphi_{\varepsilon}^{B,\beta} \cdot \lambda_s^{\beta} + W_s \\ & \leq uz_s + z_{Is} + \sum_k \left(\sum_{\varepsilon=1}^{m+n} (p_{\varepsilon s} - t_{\varepsilon s}) \cdot \varphi_{\varepsilon}^{B,dir,I} + \sum_{v=1}^n (p_{vs}^{Filt} - t_{vs}^{Filt}) \cdot x_v^{B,Filt,I} \right) \cdot \lambda_s^I \quad \forall s \in \mathcal{S} \setminus \{0\} \end{aligned}$$

$\Gamma_{1s} + \Gamma_{2s}$ production and environmental constraints γ_1 and γ_2 for objects and components (including the restrictions for realising the cycle) for the S+1 states s (cp. (2.7) and (2.8)):

$$\begin{aligned} & \sum_{\beta=1}^{q-1} \sum_{\varepsilon=1}^{m+n} a_{\varepsilon \gamma 1s} \cdot \varphi_{\varepsilon}^{B,\beta} \cdot \lambda_s^{\beta} + \sum_k \sum_{\varepsilon=1}^{m+n} a_{\varepsilon \gamma s} \cdot \varphi_{\varepsilon}^{B,dir,I} \cdot \lambda_s^I \leq b_{\gamma 1s} \quad \forall \gamma 1 \in \{1; 2; \dots; \Gamma_{1s}\} \quad \forall s \in \mathcal{S} \\ & \sum_{\varepsilon=1}^{m+n} a_{v, \gamma 2s} \cdot x_v^{B,Filt,I} \cdot \lambda_s^I \leq b_{\gamma 2s} \quad \forall \gamma 2 \in \{1; 2; \dots; \Gamma_{2s}\} \quad \forall s \in \mathcal{S} \end{aligned}$$

Minimum withdrawal constraint (ensuring that the utility is not less than before):

$$- \sum_{s=0}^S w_s \cdot W_s \leq -SWW^{opt}$$

q activity level constraints for the unchanged processes for the S+1 states s:

$$\lambda_s^{\beta} \leq \lambda_s^{\beta, \max} \quad \forall \beta \in \{1; 2; \dots; q-1; I\} \quad \forall s \in \mathcal{S}$$

Restrictions of quantity of other investment objects and financial transactions:

$$inv_j \leq inv_j^{\max} \quad \forall j \in \{1, \dots, J\}$$

Non-negativity conditions:

$$\lambda_s^{\beta}, inv_j, W_s \geq 0 \quad \forall \beta \in \{1; 2; \dots, q-1; I\} \quad \forall j \in \{1, \dots, J\} \quad \forall s \in \mathcal{S}$$

$$p_I \in \mathbb{R}$$

Besides the maximum payable price p_I for the investment and the activity levels λ_s^I of the cleaned process and the filter instead of λ_s^q , the basic programme and the valuation programme have the same decision variables: the activity levels λ_s^{β} of the $q-1$ other processes, the quantities inv_j of the other investment objects and financial transactions, and the withdrawals W_s . We find that the contribution margins (2.5) resp. (2.6) are part of the liquidity constraints, and (2.3) respectively (2.7) and (2.8) are constraints of either programme.

ENVIRONMENTAL TAXES AND SUBSIDIES; VALUES AND THE WILLINGNESS TO INVEST IN ENVIRONMENTAL PROTECTION TECHNOLOGIES

(Corrected) Net Present Values and The Maximum Payable Price for the Investment

Using complementary slackness conditions enables us to interpret the restrictions of both the duals of the basic programme and the valuation programme in an economic manner:

By introducing the dual variables

- l_s for the liquidity constraints;
- $\pi_{\gamma s}$, $\pi_{\gamma 1s}$ and $\pi_{\gamma 2s}$ for the production and environmental constraints and the outputs $\underline{x}^{\text{Filt}, I}$ accumulated in the filter;
- ξ_j for the limits of the other investment objects and financial transactions;
- ζ_s^β for the activity level constraints;
- δ for the minimum withdrawal constraint; and

dividing the dual constraints of the decision variables by l_0 , we obtain the (corrected) net present values $\text{NPV}^{(\text{corr})}$ of:⁴

- using the cleaned process I in the states s :

$$(3.1) \quad \text{NPV}_{\lambda, Is}^{\text{corr}} := \underbrace{\left(\sum_{\varepsilon=1}^{m+n} (p_{\varepsilon s} - t_{\varepsilon s}) \cdot \varphi_{\varepsilon}^{\text{B}, \text{dir}, I} + \sum_{v=1}^n (p_{vs}^{\text{Filt}} - t_{vs}^{\text{Filt}}) \cdot x_v^{\text{B}, \text{Filt}, I} \right) \cdot \frac{l_s}{l_0}}_{\text{NPV}_{\lambda, Is}} - \underbrace{\left(\sum_{\gamma=1}^{\Gamma_{1s}} \sum_{\varepsilon=1}^{m+n} a_{\varepsilon \gamma 1s} \cdot \varphi_{\varepsilon}^{\text{B}, \text{dir}, I} \cdot \frac{\pi_{\gamma 1s}}{l_0} + \sum_{\gamma=2}^{\Gamma_{2s}} \sum_{v=1}^n a_{v \gamma 2s} \cdot x_v^{\text{B}, \text{Filt}, I} \cdot \frac{\pi_{\gamma 2s}}{l_0} \right)}_{\text{Correction}} \leq \frac{\zeta_s^I}{l_0} \quad \forall s \in \mathcal{S}$$

$\text{NPV}_{\lambda, Is}^{\text{corr}} :=$ discounted contribution margin (incl. outputs accumulated in the filter)
– discounted monetary equivalent of the required capacity of the production and environmental constraints

- using the q (in the valuation programme: $q - 1$) other processes β in the states s :⁵

$$(3.2) \quad \text{NPV}_{\lambda, \beta s}^{\text{corr}} := \underbrace{\sum_{\varepsilon=1}^{m+n} (p_{\varepsilon s} - t_{\varepsilon s}) \cdot \varphi_{\varepsilon}^{\text{B}, \beta} \cdot \frac{l_s}{l_0}}_{\text{NPV}_{\lambda, \beta s}} - \underbrace{\sum_{\gamma=1}^{\Gamma_s} \sum_{\varepsilon=1}^{m+n} a_{\varepsilon \gamma s} \cdot \varphi_{\varepsilon}^{\text{B}, \beta} \cdot \frac{\pi_{\gamma s}}{l_0}}_{\text{Correction}} \leq \frac{\zeta_s^\beta}{l_0} \quad \begin{matrix} \forall \beta \in \{1; 2; \dots, q-1\} \\ \forall s \in \mathcal{S} \end{matrix}$$

- realisation of other investment objects and financial transactions j :

$$(3.3) \quad \text{NPV}_{\text{inv}, j} := \sum_{s=0}^S z_{js} \cdot \frac{l_s}{l_0} = \sum_{s=0}^S z_{js} \cdot \rho_{s,0} \leq \frac{\xi_j}{l_0} \quad \forall j$$

$\text{NPV}_{\text{inv}, j} :=$ discounted payments

With these results, it is possible to obtain the desired information about the determinants of the maximum payable price. According to duality theory of linear programming in case of the existence of a finite positive solution, the optimal solution of the primal and the dual problem are equal. Therefore, the optimal solution of the dual of the valuation programme provides information about the maximum payable price. Because the withdrawal constraint is part of the constraint system of the valuation programme, it also takes into account the optimal solution SWW^{opt} of the basic programme. Ergo, in case of the existence of a finite positive solution of the basic programme, the optimal solution of its dual can be inserted for SWW^{opt} in the minimum withdrawal constraint of the valuation programme. Then, the equation of the price ceiling contains several dual variables of the valuation programme and the corresponding ones of the basic programme.

Nevertheless, using the (corrected) net present values $NPV^{(corr)}$ (3.1)-(3.3) allows one to interpret this equation in an economic context. If one of the primal variables λ_s^I and λ_s^β of the activity levels or inv_j of the other investment objects and financial transactions is positive, then – by reason of “complementary slackness” – the corresponding inequation (3.1)-(3.3) is satisfied as an equation. Therefore, we can use the $NPV^{(corr)}$ to substitute the corresponding *positive* dual variables ζ_s^I , ζ_s^β and ξ_j of the valuation (VP) and the basic programme (BP).⁶ Introducing the dual variable δ of the withdrawal constraint, we then obtain maximum payable price for an investment in environmental protection technologies as a sum of several (partly corrected) net present values:⁷

$$(3.4) \quad p_I^{opt} = \underbrace{\sum_{s=0}^S z_{Is} \cdot 1_s^{VP}}_I + \underbrace{\sum_{s=0}^S \lambda_s^{I,max} \cdot \zeta_s^{VP,I}}_{II} + \underbrace{\sum_{j=1}^J inv_j^{max} \cdot \{ \xi_j^{VP} - \delta \cdot \xi_j^{BP} \}}_{III} + \underbrace{\sum_{s=0}^S uz_s \cdot \{ 1_s^{VP} - \delta \cdot 1_s^{BP} \}}_{IV} \\ + \underbrace{\sum_{s=0}^S \left(\sum_{\gamma=1}^{\Gamma_{1s}^{VP}} b_{\gamma 1s}^{VP} \cdot \pi_{\gamma 1s}^{VP} + \sum_{\gamma=2}^{\Gamma_{2s}^{VP}} b_{\gamma 2s}^{VP} \cdot \pi_{\gamma 2s}^{VP} - \sum_{\gamma=1}^{\Gamma_{\beta s}^{BP}} b_{\gamma \beta s}^{BP} \cdot \delta \cdot \pi_{\gamma \beta s}^{BP} \right)}_V + \underbrace{\sum_{s=0}^S \lambda_s^{\beta,max} \cdot \left(\sum_{\beta=1}^{q-1} \zeta_s^{VP,\beta} - \sum_{\beta=1}^q \delta \cdot \zeta_s^{BP,\beta} \right)}_{VI}$$

- p_I^{opt} = NPV of all activity level-independent payments of the investment in environmental protection technologies (without p_I^{opt}) (I)
- + NPV^{corr} of operating the profitable cleaned processes at their maximum activity levels $\lambda_s^{I,max}$ (II)
- + NPV of the changes between VP and BP regarding the realised other investment objects and financial transactions (III)
- + NPV of the changes between VP and BP regarding the valuation of the payments that are independent from production quantities and from the investment programme (IV)
- + NPV of the changes between VP and BP regarding the monetary equivalents of the production and environmental constraints (V)
- + NPV^{corr} of the changes between VP and BP regarding the use of the other production processes β (VI)

This price ceiling for an investment in environmental protection technologies depends on the (corrected) NPVs of its payments and on the interdependencies occurring because of changes in the optimal investment programme. Under uncertainty it includes the *discounted payments of all states* – even those which, in fact, will not occur.

Environmental Taxes and Subsidies and the Willingness to Invest in Environmental Protection Technologies

The economical interpretation of the terms (II) and (VI) of (3.4) shows that environmental policy using *taxes and subsidies* affects the *price ceiling* for environmental technology investments via changes to the corrected net present values of the processes. Thus, the known results of environmental economics (e.g. the effect of Pigou taxes) are confirmed for a single investment. Nevertheless, sensitivity analysis of the left hand side coefficients of both the basic and valuation programmes shows that these instruments may be *counterproductive even for environmentally beneficial investments*. The maximum payable price p_I^{opt} may increase, decline or remain constant if taxes or subsidies change. This has several reasons:

- Taxes and subsidies are coefficients for a decision variable which is a basis or non-basis variable. This may differ between the basic programme and the valuation programme.
- The minimum withdrawal constraint connects the basic and the valuation programmes.
- Negative $NPV^{(corr)}$ are not part of the optimal solution – neither in the basic nor in the valuation programme.

Therefore, (over-) compensation of the effects of tax/subsidy changes between the two programmes is possible. To give an example, rising taxes may initially ameliorate the conditions of environmentally beneficial processes in comparison to the older ones of the basic programme (with the result that investments in environmental protection technologies would be encouraged). However, if taxes continue to rise, parts of the optimal solution of

the basic programme may lose their profitability faster than in the valuation programme. Since processes and other objects with (corrected) NPVs which are becoming negative will no longer be chosen in the optimal solution, they will no more diminish SWW^{opt} either. The optimal solution of the dual valuation programme (and consequently p_I^{opt}) may then decline. Especially, this situation can be found, when there is no more production in the situation without filter (therefore, production is not longer affected by rising taxes in the basic programme and harm to the environment will no longer occur) while it still delivers a positive contribution margin when production is cleaned. Then, we would still produce in the valuation programme to cover fix costs – and, consequently, there would still be **harm to the environment**, and **profitability** of production would be more and more affected by tightened environmental policy.

Consequently, tightened environmental policy sometimes leads to the **paradoxical situation** that: 1. it is *unprofitable to invest* in an environmentally beneficial technology; 2. the *marginal incentive to invest is negative*; and 3. the *danger/harm* for the environment even *increases*. Or, the other way round, there exist even situations where subsidies on environmentally harmful substances lead to environmental protection.

EXAMPLE – EFFECTS OF ENVIRONMENTAL TAXES ON THE WILLINGNESS TO INVEST IN ENVIRONMENTAL PROTECTION TECHNOLOGIES

Given an imperfect market under certainty with lending opportunity at the interest rate $i_L = 50\%$ (investment object inv_L), but without the possibility of borrowing money, an investor with the initial amount of cash $uz_0 = 50$ [\$] in $t = 0$ wants to maximise his withdrawals in $t = 1$. Therefore, he can produce with the basic activities $\underline{\varphi}^{B,old1} = (r_1^{B,old1}, r_2^{B,old1}, x_P^{B,old1}, x_E^{B,old1})' = (4, 5; 8, 10)'$ and $\underline{\varphi}^{B,old2} = (r_1^{B,old2}, r_2^{B,old2}, x_P^{B,old2}, x_E^{B,old2})' = (10, 4; 10, 8)'$ at the activity level $\lambda^{old} = 1$ with the current prices $\underline{p} = (p_{r1}, p_{r2}, p_{xP}, p_{xE})' = (-4; -2; 10; 0)'$. Now, the government wants to establish a tax system for the emissions E (e.g. sulfur dioxide SO_2). Therefore the producer considers a filter investment for process old1. This will change $\underline{\varphi}^{B,old1}$ to the vector $\underline{\varphi}^{B,dir,I} = (r_1^{B,dir,I}, r_2^{B,dir,I}, r_3^{B,dir,I}, x_P^{B,dir,I}, x_E^{B,dir,I})' = (4, 5, 3; 8, 7)'$ of inputs and outputs, which the combination of the cleaned process I and filter directly obtains from outside or delivers to the outside. This means: to reduce emissions by 3 [QU] (quantity units) he needs $r_3^{B,dir,I} = 3$ [QU] of an additional input 3 (e.g. lime or limestone) which he can get at the price $p_{r3} = 3$ [\$/QU]. Hence, he gets the quantity $x_G^{B,Filt,I} = 2$ [QU] of an additional product G in the filter (e.g. gypsum after forced oxidation) which he can sell for $p_{xG}^{Filt} = 2.5$ [\$/QU].

In all cases, with and without filter, the maximum activity levels are $\lambda^{old1,max} = \lambda^{old2,max} = \lambda^{I,max} = 10$. For the installation of the filter and the change of production in $t = 0$, the investor has to spend $z_{I,0} = -50$ [\$/QU]. Depending

on the taxes $t_{xE} = t_{xE0} = t_{xE1}$ we get the new optimal solutions SWW^{opt} of the basic programme and p_I^{opt} of the valuation programme as given in table 1:

Table 1: Optimal solutions of BP and VP with respect to emissions taxes

t_{xE}	SWW^{opt}	p_I^{opt}	Emissions x_E	
			without filter	with filter
0	1.425	-116 2/3	180	150
1	1.175	-66 2/3	180	150
2	925	-16 1/3	180	150
2 1/3	841 2/3	0	180	150
3	675	33 1/3	180	150
4	425	83 1/3	180	150

5	175	133 1/3	180	150
5.4	75	153 1/3	80	150
6	75	83 1/3	80	150
6.5	75	25	0	70
6 5/7	75	0	0	70
7	75	-33 1/3	0	70
7 1/7	75	-50	0	0
8	75	-50	0	0
9	75	-50	0	0

Without taxes, the investment is not worthwhile: at both points in time, the resulting contribution margin is smaller (50 [\$] instead of 54 [\$]), and the initial amount of cash (and the interest) for installing the filter and changing the production is lost. Thus, the maximum payable price $p_I^{\text{opt}} = -116 \frac{2}{3}$ [\$] for realising the investment is negative, i.e., the investor only installs environmental protection technologies if someone else pays for it. As expected, rising taxes t_{xE} affect the maximum payable price for the filter investment; although not always in the politically desired manner as shown in section 3.2. Starting from $t_{xE} = 0$ [\$/QU], the contribution margins of production will decline in the basic programme and in the valuation programme as well. Since production with the cleaned process leads to fewer emissions than without filter, the contribution margin of the uncleaned process declines faster – and therefore, the *investment becomes more and more profitable*. At $t_{xE} = 2 \frac{1}{3}$ [\$/QU], the investment reaches its break-even point. Now, the investor is even willing to pay for it. Up to $t_{xE} = 5.4$ [\$/QU], this advantage is increasing, so that the investor is able to pay increasing amounts for the investment and still gets, at the least, the same sum of weighted withdrawals as in the situation without installing a filter.

For $t_{xE} > 5.4$ [\$/QU], the contribution margin of uncleaned production with process old1 is too low to produce. Thus, this part of production is stopped in the basic programme, and only production with old2 allows for SWW^{opt} . In the valuation programme, however, beyond production with old2 also production with the cleaned process I is still worthwhile. Thus, since in both situations there is no difference in the use of process old2, while rising taxes t_{xE} still diminish contribution margins of production with I (without equivalent in the basic programme), the *price ceiling* p_I^{opt} for an investment in environmental protection technologies must *begin to fall*.

For $t_{xE} > 6.5$ [\$/QU], also production with old2 becomes unprofitable, and the sum of weighted withdrawals SWW^{opt} remains constant (still, the initial amount of cash $uz_0 = 50$ [\$/QU] can be invested at the lending opportunity inv_L). Hence, only production with the cleaned process I is charged with rising taxes t_{xE} at both points in time. Consequently, rising withdrawals in the situation without investment and decreasing contribution margins in the situation with investment let the *maximum payable price* p_I^{opt} for the filter investment *continue to decline*.

For $t_{xE} > 6 \frac{5}{7}$ [\$/QU], the investment will even lose its profitability: production with process I is still worthwhile because the contribution margins are still positive, but they do not cover the activity level-independent payments $z_{I,0} = -50$ [\$] for the installation of the filter, and the change of production in $t = 0$. If finally $t_{xE} > 7 \frac{1}{7}$ [\$/QU], there will not be any production in the valuation programme either. For this reason, the investor *will lose* $z_{I,0} = -50$ [\$] overall.

Nevertheless, although rising environmental taxes in this example may lead to a change to unprofitability of an investment in filter technologies, it could be argued that environmental protection sometimes costs money. But even this *argument does not hold*: Starting at $t_{xE} = 5.4$ [\$/QU], rising environmental taxes lead to *more undesired output*, and for $6 \frac{5}{7}$ [\$/QU] $< t_{xE} < 7 \frac{1}{7}$ [\$/QU], investing in environmental protection technology has a *negative outcome not only in terms of profitability, but also for environmental protection* (cp. dark shadow in table 1). Taking into account that table 1 gives information on the maximum payable price for an investment in a filter, the actual price to pay will normally be greater than 0 [\$] (the difference between the maximum payable price and the actual price leads to the actual profitability of the investment), this dark shadowed area of negative outcome for both the investment's profitability and environmental protection will be even bigger.

CONCLUSION

This paper has offered a general approach to value investments in environmental protection technologies with particular regard to the effects of taxes and subsidies. Since these investments affect production, the payments required for a financial valuation have to be derived from production theory and production planning. With respect to the environment, production processes are characterised by joint production. Environmental policy may modify the contribution margins and/or the constraint system. The model considers activity level-dependent and -independent payments and handles the indivisibility of the investment in two steps.

Applying duality theory allows one to identify the determinants of the price ceiling for an investment with regard to environmental taxes and subsidies, and uncertainty. Also, the model provides *exact* information on the determinants of the maximum payable price. Information on probabilities, means and variances is not required. Using sensitivity analysis, we have been able to show that a tightened scheme of environmental taxes does not always encourage environmentally beneficial investments. In particular cases, it may even lead to the paradoxical situation that: 1. it is unprofitable to invest in an environmental protection; 2. the marginal incentive to invest is negative; and 3. the harm for the environment even increases. In particular cases even subsidies on environmentally harmful substances may lead to environmental protection.

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NOTES

- 1 From a formal point of view, regarding an investment in a clean technology would be even easier. Then we only had to change the input-/output vector $\underline{\phi}^q$ of process q to the cleaned one $\underline{\phi}^l$.
- 2 Otherwise (e.g. for batch processes) it is wise from a *formal* point of view to model the EOP technology as a self-contained process β , independent from the process to be cleaned. However, in this case a special constraint has to ensure that the quantity of inputs of the batch process is a function of the outputs of the process to be cleaned. In accordance, later on, an *investment* into a filter then has to be treated *formally* as an investment into another production process. Compare Klingelhöfer 2006, pp 108, 150 i.c.w. 130-150.
- 3 The weights in the objective function express the decision maker's individual relative preferences for payments in the regarded states. Although, at first sight, this seems to be similar to using expected values, weighting the payments of each possible state does not imply considering probabilities and, therefore, the sum of weights does not have to equal 1. For the mathematical formulation of the basic programme cp. Klingelhöfer 2003, pp 290-291, Klingelhöfer 2006, pp 75-81.
- 4 Except for (3.1), all the following (corrected) net present values NPV can be derived from the basic programme (2.9) as well as from the valuation programme (2.10). However, the dual variables and, consequently, the endogenous discount factors $\rho_{s,0} = l_s/l_0$ to discount payments in state s to state 0 normally differ between the two programmes. Especially, $l_0 = 1$ and, therefore, $\rho_{s,0} = l_s$ for all the (corrected) NPVs derived from the valuation programme: in the case of an existing finite positive solution $p_l > 0$ of the primal and dual valuation programme, we can deduce $l_0 = 1$ from the complementary slackness condition $p_l \cdot (1 - l_0) = 0$.
- 5 In the valuation programme the indices γ and Γ_s are to be replaced by γ_l and Γ_{ls}
- 6 Compare note 4.

7 The dual variable δ of the withdrawal constraint calculates the value of a marginal increase in SWW^{opt} referring to the objective function of the valuation programme (the price ceiling).

HOSPITALITY MANAGEMENT IN RURAL TOURISM (BOSNIA AND HERZEGOVINA)

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ABSTRACT

Bosnia and Herzegovina is a small transition country in the Balkans. In its development, it has all the problems like other countries in the region, which facilitates their recognizability. Globalization and transition are the processes which should be involved in making of development strategies of rural tourism which is one of the most brightest points of sustainable development. That orientation stems from: competitive advantages (healthy environment, preserved nature, genuine hospitality of people) which are in accordance with changed interest of a modern tourist who abandons „mass tourism“ of 20th century, preferring connection with nature, hospitality and new forms of tourism: health, sports, adventure, agrotourism. Since the rural economy of BiH(1) is fragmented and concentrated to small family businesses, it needs the assistance by the state and other associations in order to provide the progress through joint promotion, branding of products, education of personnel and entering the broader market. Clusters and social entrepreneurship are possible models of survival and sustainable development.

INTRODUCTION

Analysis of economic potentials of Bosnia and Herzegovina shows that rural tourism is a potential which has very broad and unused possibilities, the sector to which future scientific researches and investments should be directed. The first thing to do is reconstruction of existing tourist capacities and then upbuilding of new ones, with assistance of foreign investments. Of course, the foreign investors will see here their chance for making profit, but Bosnia and Herzegovina alone is not capable to do anything. Regressed by long-year's war managed by previous system of development, the scene of religious, national and other skirmishes of large forces, it is not able to preserve its independence and integrity. The road to the future must be the road of „dependant“ development where a man, citizen, worker and every entity will have benefit. Foreign investments will bring fresh capital that will launch the infrastructure, economy, exploitation of natural resources, but our man will do everything, he will „enjoy“ novelties and progress, and only potentates will be dependant and incapacitated to work whatever they want and manage the state as if it is their private property.

Here, predispositions for development of rural tourism are very far-reaching and can be actualized by emphasizing many advantages of total social environment that will become more quality such as: improvement of quality of the life in villages and suburban areas, pointing out the significance of historical inheritance and increase of its value, improvement of life style, penetration of esthetics, culture and emphasizing the feeling of affiliation to a place and construction of local patriotism, inclusion of local communities in development of destination, which would become more and more touristic or agrotouristic. With strengthening positive attitude toward nature, care for preservation of healthy and intact nature, settlement of the issue of waste and production of new energy-generating products of it etc. we get new possibilities for employment of the young and for their stay in the villages.

RURAL TOURISM OF BOSNIA AND HERZEGOVINA: GLOBALIZATION AND TRANSITION

Internationalization, transition, globalization, backwardness, low level of education of personnel in tourism... are the basic factors that determine the condition of economy of Bosnia and Herzegovina and development of rural tourism. All of them act jointly, sometimes they present the restraint and sometimes the challenge and new possibility and chance.

Reflection of globalization to rural tourism of BiH

It is necessary to measure the significance and reflection of globalization in Bosnia and Herzegovina on the tourist market and then to examine its implications to national tourist economy, to tourist sectors or particular organizations that deal with tourism or work something for tourism. However, for the needs of this work, we will only point out some of the consequences that directly determine the situation in the domain of tourism, especially the rural one which is yet to be developed in BiH:

- Qualitatively new relations in world economy and European economy have certain influences to functioning of the economy of all countries individually so BiH as well. It is all the same whether we call this new condition as „new world economy“ or „transnational“, as Drucker calls it (1992), or „global“ as called by Hirst and Thompson (1992) or „world without borders“ called by Ohmae (1992).(2) The essence is that the world is functioning in a new manner and we have to position ourselves toward it with more attention because we are the small country, because our power is smaller;
- New researches show that the world is functioning on new principles of complex systems, where the power of decision making has been transferred from national states to regions, to regional associations and the power of states has been decreased;
- Next to this process there is, almost autonomous, world economy of money, loans and investment flows, which do not know for boundaries, nations and regions;
- Transnational companies are also the element of globalization, which determine the ambience of tourist operations of particular countries.

Therefore, whether we want it or not, we act internationally and globally and our autochthonousness, independence and national isolation are only restraints in the process which is inevitable in all segments especially the tourist segment. In fact, it is questionable even to talk about being isolated because isolation refers only to some segments of life, while in other segments it is impossible to prevent the influence of global market, global and international mode of life.

Transition in Bosnia and Herzegovina and rural tourism

Hamlet's Dilemma "*To be, or not to be*" in Bosnia has been replaced by the slogan "*To stay or to leave*"?

Since the end of the war (since Dayton, 1995) until today, more than 150 000 people left BiH, mostly the young and educated people and researches show that $\frac{3}{4}$ of the young wish to leave the country, but are not able to do that because of visa regime or economic weakness. Basic motives of leaving are:

- *Economic position of the young.* In BiH, 45% of the young is unemployed, and 1/3 of the unemployed is below 30 years of age. The young (15- 30 years of age) make one fourth of the population in BiH, and unemployment rate is 2,5 higher than total unemployment rate. (3)

- *Educational problems.* BiH is at the very bottom (38 out of 40 countries) in implementation of Bologna convention in education. Its implementation in BiH experienced highest distortion. Technical and personnel capacities in educational institutions are very weak, politics on universities is very strong, the young are not on the scale of priority of state because transition states are not able to provide adequate support to scientific projects which would engage young people, the state does not invest enough into peoples and ideas, it does not appreciate their scientific potential, their social position, wishes or possibilities. We notice establishing of funds for scholarships for young talents, stimulation of the employment of the young, opening of credit lines for helping the young to buy a place to live, especially intellectuals, which presents a step forward in the past years and these are the tendencies that should be supported. Condition in schools and faculties is an image of the

condition in society whose main characteristic is a low degree of economic development, decline of general values and standards, so that the change of global condition is a prerequisite for everything.

- *Political problems.* Only 6% of the young in Bosnia are the members of political parties, only 1% of the young believe that they can influence political and social circumstances in BiH, and that is the reason why the young take passive and not active relation toward political reality in the country.(4) The presence of international organizations in BiH is partly responsible for such condition, because they are in charge of promotion and introduction of European standards and increase of the participation of the young in all segments of the society through various educational seminars, the aim of which is inclusion of the young into economic, political and social life. Considering the present globalization processes, it is realistically to expect that the importance of knowledge as a basic social resource of 21st century will increase also in the transition countries. Besides, BiH experiences similar processes as the transition countries in surroundings such as Slovenia, Croatia or Serbia.

PERSPECTIVES OF RURAL TOURISM IN BIH

Rural tourism comprises every tourist activity within rural area and these are various scopes of tourism such as: hunting, fishing, tourism in the parks of nature, winter tourism, health tourism in villages, cultural tourism in villages, agrotourism. Strategic advantages of Bosnia are obvious: healthy environment, favourable geographic position, variety of climatic conditions, altitude – air spas (Manjaca, Borja, Kozara), many sources of spa water (Teslic, Kulasi, Slatina, Mljecanica), vicinity of the sea, several beautiful rivers (Una, Vrbas, Bosna, Drina, Neretva), famous ski resorts on Olympic mountains (5) and many various contents on geographically small area. (In one day possible is bathing in the sea, skiing on some of the mountains, rafting on rivers Tara or Vrbas, or resting in some of surrounding spas). Agrotourism includes: agriculture, gastronomy, folklore, old art-craft and various other events in villages, based on competitive advantage of the region, tradition, specificity of agroculture and people.(6)

Altogetherness of these elements make a complete tourist product which gives the tourists the services of accommodation, rest on village estate, and then various specific agricultural contents: familiarizing of children with domestic animals, riding, taking part in agricultural works, production of food, bread, wine, brandy, winter food, collection of medicinal herbs, tea, mushrooms, snails, as well as adventure contents: riding, driving in coach with horses, teaching the traditional crafts: production of canvas (weaving), crocheting, embroidery, production of tools etc. Agrotourist location cannot be developed on the basis of only one element, but the combination of attractivenesses and specificities is safer and better, or association with neighbouring locations which make a complementary entity – heterogenous destination, which is complementary in offer, which is safer base for development, because entire tourist destination appears as a tourist product.

One of the most important predispositions of rural tourism in BiH is hospitality, which is immanent to these people. The famous Bosnian writers Mesa Selimovic and Ivo Andric wrote about specificities of the man from this area, who gladly receives guests, who has in its soul the things that modern tourist demands saturated by mass tourism and touristic chains: warmth, proximity, kindness, openness, in one word *hospitality*. That genuine hospitality and wish of contemporary tourist to be as close to the nature as possible, is possible to be realized in BiH because, mostly for the reason of being undeveloped, the nature remained intact in a large extent, clean, with lot of healthy food, drinking water and clean air. These are huge resources which, joined with knowledge and education may bring brighter future.

CLUSTERS AND RURAL TOURISM

Rural tourism of Bosnia will not be able to develop in small family households, fragmentized agricultural households, or individual offer of a village or attractive destination. Rural tourism is low productive from the capital point of view, so it is necessary to find the possibilities for cheaper joining the global tourist processes and wider tourist offer. The road toward these integrations leads through binding with the similar or completely different, in order that offer would be packed into one complete system of offer on certain location. Clusters present one of possible and very acceptable models of binding when we talk about rural tourism. The advantages of binding or networking are: cheaper creation of target group, improvement of productivity and cheaper expenses of promotion, advertising, brand, division of labour between the organizations that deal with rural tourism and better distribution of human resources according to vocational skill and training. Clusters may assist in: lobbying in the authorities of power at the local level and state level, in international organizations and financial institutions, may ease the access to contemporary knowledge and experience, not to explore something

that has already been discovered and to use experience from surroundings. Competition in cluster system is specific and presents delicate mixture of rivalry and cooperation, and basic values of cooperation are: trust, team spirit, transparency and cooperation in the interest of higher earning regardless of competition. Quality cooperation of business firms within cluster reduces transaction costs and increases further competitiveness. Atmosphere of cluster is cooperative, and competition and cooperation may exist together, because they appear in different dimensions and between different entities. Competition stays in horizontal level and cooperations appears as necessity in vertical level, so that competition and cooperation in fact present the basics of dynamicity of the cluster itself. Economic development of Bosnia is orientated to regional openness, where clusters are basic starters of development in technical and technological sense. On the other hand, they enable networking of small business firms with the business firms that have the same activity in other regions or countries aimed at connection of technologies and their cheaper improvement. Therefore, clusters are not only spatial binding and networking, but also binding on the basis of the same activity aimed at its improvement. This binding is often more productive, because spatial competition is excluded which appears in case of same neighbouring activities, where interest for clusterization is searched in vertical cooperation.

Only the cluster policy in Bosnia will provide that people – small manufacturers are encouraged to initiate and develop rural tourism in all forms. Advantages of Bosnia are huge in that sense and especially in the sector of land ownership, because we are the country in which the ownership of land per capita is among the largest in Europe. This is important competitive advantage, which has been unimportant so far, because the owners were „chased” off their properties by previous development policies at all levels. Rural tourism will be also development of all forms of production which are at the service of tourism, but are still non-profit making, as well as individual and fragmentized modes of life of entrepreneurs such as: various crafts, production of canvas, tea, collection of wild fruits and similar. Policy of clusterization must be implemented gradually, encouraging cooperants to join, to think in a new way, which is very important in the territory which was subject to completely opposite policies of past, unforgettable times. It is important that the members do not have the feeling of loss of identity, to see the advantages that will be promoted in adequate manner, with as less administration as possible, and with more attracting of fresh capital and donations by the state. Promotion of results, struggle for new markets and promotion of real pioneers and leaders is important, because Bosnia is the environment in which the role of a personality is important and special.

Image 1. Marketing related to rural tourism BiH



SOCIAL ENTREPRENEURSHIP AND RURAL TOURISM BIH

Significance and strength of social capital and its influence to improvement and development of standard of living is huge and often underestimated in science and theory. It is especially important for transition countries, undeveloped countries and former socialist countries, in which the social moment in economy has been expressed, and is expected in new economies as well. Such country is Bosnia and Herzegovina.

The phenomenon of social entrepreneurship has appeared since the very beginning of development of private entrepreneurship and its significance has been intensified for the past twenty years. This notion and phenomenon, especially important for 21st century has been emphasized by Drucker, (1992) and gives it the advantage in the future in relation to traditional entrepreneurship. Increase of social businesses appears from impossibility and incapacity of many governments to fulfill social expectations through humanitarian activities and to improve standard of majority of population. Social entrepreneurship is non-profit organization, as it is often interpreted, but the combination of best practice of profit and non-profit sector, where entrepreneur plays a very important role whose characteristics are: creativity, innovativeness and readiness to risk.

Social entrepreneurship is application of entrepreneurship principles in social sector aimed at improvement of quality of life. Unlike other forms of entrepreneurship (traditional or corporative), social entrepreneurship inclines simultaneously to accomplishment of both social and financial aims. Social entrepreneurship is related to development of social economy, and this economy comprises the domain of economic activities between market, state and non-market sector, for accomplishment of certain social and economic activities for citizens. Holders of social economy are: business firms (that do not see only interest of capital), representatives of civil society that are joining in order to create business firms that would satisfy the needs of target social groups or communities. The Institute of Entrepreneurship defines it as: „*Social entrepreneurship is an art of simultaneous pursuing both a financial and social return on investment.*” (The Institute for Social Entrepreneurship 2005.). This definition overall explains the relations between commercial and social entrepreneurship, without giving the priority to creation of new values, but the basic aim is: sustainability of organization, opening of new workplaces, employment of marginal groups and the profit as well. This tells about importance of this entrepreneurship for the countries in transition, such is ours, considering that the country has not got mechanisms for protection of those social categories, and if it has the laws about it they are not being implemented because there is no money for it. Therefore, the aim of this entrepreneurship is creation of new social values, and if smaller or larger profit is realized, it is not appropriated by anyone but instead is used for accomplishment of mission of social entrepreneurship which is creation of new workplaces and employment of marginal groups. In order to realize that mission, very important is key person – entrepreneur, who must have the following positive characteristics of personality: passion for business, focus on product and consumer, persistence despite failure, executive intelligence, and then innovation, creativity and readiness to risk, along with rich and modern managerial knowledge. Only young and fresh knowledge may oppose the small countries to the process of globalization and to emphasize individualities, specificities and variety of tourist destinations, as basic competitive advantages, as well as to confront the phenomenon called „mass tourism“, and to create management processes of such quality which will lead these countries in the future in which megatrends are not restraint but an advantage and chance.

CONCLUSION

BiH suffers from all diseases like other transition countries in the region, which means that we have to look for the way out on the roads on which other countries are, but also on our own, recognizing own competitive advantages which are obvious. The future of development should be directed toward rural tourism, because this is the domain which is attractive, unspent and possesses competitive advantages. Since this domain is characteristic for particular, fragmented, private estates – ownerships – businesses of mostly family type, development of technological as well as human resources is not possible without binding into organizations that would solve most of the problems: from creation of development strategies, making of business plans, opening of financing lines to personnel and their education and searching of markets. That is why clusters are emphasized as one of the best models for existing space and time. In some environments, we have also other types of networking: associations, agencies, cooperatives and similar.

It should be pointed out that the future of development of rural tourism here is in connection with the known, larger and stronger entities on European and world market. Many are afraid of low productivity and economic and political uncertainty, and it is necessary to animate the creators of global policy to create stable and safe economic environment, in order to encourage foreign investors to bring capital to our country. All forms of joining are good and may bring us advancement: contractual dealings for managing, franchising, direct investments, subcontracting, timesharing and similar dealings. It is important that domestic product goes into the world, that people hear for it, that that tourists visit us and recommend us to others because they are satisfied and have a wish to come again and to bring someone else.

Since *mass tourism* is not accepted in the countries of the third world, its is considered destructive and new form of colonialism which destroys their culture and values, rural tourism may be only and real alternative. The most important is that the people understand that this tourism must be of smaller scale and with smaller and limited benefits. It could be additional source of income, but it is far away from being dominant economic activity, which will perhaps preserve it from the world powers that turn everything into „mass“ and „global“.

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FOOTNOTES

(1) Hereinafter referred to as BiH and RS (Bosnia and Herzegovina and its entity Republic of Srpska), we will use our domestic expression BiH or „Bosnia“, which comprises entire territory of the state of Bosnia and Herzegovina.

(2) Knezevic, M. (2009): *Savremeni pristupi dizajniranju menadzment procesa hotelskih sistema*, (doctoral dissertation), University „Braca Karic“ Belgrade, (monography), page 28.

(3) 55% of the young smoke cigarettes (and the western countries have decreased smoking by a half), 65% of the young population „often drink“, they watch TV beyond measure or spend their time in cafes. That way of life becomes their style, and source of income for that way of life are – donations of the parents.

(4) Research by the Helsinki Citizens` Assembly in BiH, 2009

(5) Bosnia and Herzegovina was a host to the Winter Olympic Games 1984

(6) Hajdas, S. Horvat, D. (and others), (2007), „Klaster – model interregionalnog povezivanja kontinentalnih agroturističkih odredista“, *Acta Turistica Nova* No. 1(2007). p. 6

STATE MONETARY POLICY - TARGETING AND MODELING: RUSSIAN EXPERIENCE

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ABSTRACT

This article is dedicated to solving problems of a State monetary policy by means of targeting and modeling. The problems and its solutions are shown at the example Russian economy.

INTRODUCTION

Monetary policy of a country central bank is of particular importance in the global economic crisis. Search options for central banks monetary policy should be adequate environment. An important question is what it will be at a post-crisis period. The central element in the formation of monetary policy is to define its objectives. Here, as a rule, allocate some strategic, the ultimate goals of ensuring the stable development of economy.

TARGETING IN STATE MONETARY POLICY

The central element of any monetary policy is the definition of its objectives (targets). Thus, F. Mishkin identifies six strategic objectives [8 Mishkin, 2006]. By his opinion, any central bank must have the following targets:

1. High level of employment,
2. Economic growth
3. Price stability;
4. Stability of interest rates;
5. Stability of financial markets;
6. Stability of the currency markets.

The price stability, full employment and growth are the main among targets in real output [2 Dolan E. . J, Campbell DK, Campbell RJ., 1991]. It is clear that the multiplicity of targets means in practice the choice of the Central Bank of priorities in its policies. Nevertheless, it is possible to change depending on the prevailing economic situation specifically. Notably, that in the "Guidelines for the single state monetary policy" is developed annually by the Bank of Russia says the only main target now is reducing inflation and maintaining it at a low level, which corresponds formally to legislation.

However, we can't achieve the ultimate targets together; so, central banks must establish interim objectives, i.e. indicators, which are characterized by:

certainty and predictability effects on the ultimate targets,
measurement accuracy,
speed of obtaining relevant information,
controllability of the central bank.

The Central Bank has such tools of monetary policy realization as:
the monetary aggregates,

nominal interest rate,
prices level,
nominal GDP,
the national currency.

But with the help of only these very tools the central banks have a lot of difficulties in direct impact on the operational targets. Therefore the central bank must allocate operational targets that are easier to manage, adjust and measure.

However, the simple definition of desirable targets currently is not restricted. Central banks are trying to establish one or another mode of so-called **targeting**. The targeting policy means a public declaration of a target as a priority and its documentary fixation. As a result, targeting is seen as "anchors" of stabilizing prices, reducing inflationary expectations, thereby providing favorable conditions for economic growth. The **nominal anchors** appear in different ways:

money supply,
exchange rates,
inflation,
nominal GDP,
nominal interest rate.

It is widely accepted in the economic literature that none of the options of targeting is not perfect, and therefore we can see both pluses and minuses of these options, and it's adequacy of the specific economic situations in different countries. Members of the Board of Directors of the U.S. Federal Reserve DE Lindsay and GS Uollich, describing the target set of central banks, make the following conclusion: "... a macroeconomic analysis, and practical experience show us that no single variable can not consistently serve as a reliable guide monetary policy, so that definitely choose the best of them in all circumstances, not possible" [6 Lindsay and Uollich, 2004]. Such an approach clearly indicates that in determining the direction of monetary policy should not get hung up on some supposedly the only effective mode of targeting

Lack of monetary targeting is no close relationship between inflation and monetary aggregates in the case of unstable demand for money. The above authors emphasize in this connection: "Monetary aggregates are a good guide for monetary policy when the demand is steadily related to nominal spending and market interest rates and has a relatively low sensitivity to interest rates." [6 Lindsay and Uollich, 2004] It is also known, monetary targeting is not in a position to have any effect on non-monetary factors of inflation, whereas the inhibition of the money supply could undermine the conditions for economic growth as credit limits, promotes growth, interest rates and reduce liquidity in the banking system.

The interest rate depends on real factors so its level can't be maintained in the long run. Talking about targeting the nominal interest rate, DE Lindsay and GS Uollich noted that "the relationship between nominal values of cost and market interest rates, quality is less predictable and stable over time than the underlying and the already weak relationship between their real values. Determining what level of real interest rate corresponds to a given level of nominal interest rates, complicated by the fact that inflationary expectations of the population are very difficult to measure".[6 Lindsay and Uollich, 2004]

Targeting the exchange rate, despite the apparent simplicity and transparency leads to loss of independence of state monetary policy. In general, such policies are far from solving domestic economic problems. Besides the opportunity to support the exchange rate is limited by the availability of foreign exchange reserves.

In recent years, version of inflation targeting has been extended by a publicly announced a primary objective of monetary policy inflation (price index), without any intermediate targets and in enhancing the accountability of the central bank to achieve its target. Inflation targeting requires a transition to a regime of free floating exchange rate, and uses interest rates as the main instrument of monetary policy, performing a signal function and affects the monetary conditions of the economy.

The disadvantages of this option targeting are indicating in a problem of lags, i.e. the fact that the impact of monetary policy affects inflation after a considerable period of time. F. Mishkin draws attention to the fact that "... the estimated macroeconomic models of the U.S. economy, monetary policy might need about a year to affect output and about two years - for a significant impact on inflation".[8 Mishkin. 2006] This is so-called "delay of the signal". In addition, the priority of reducing inflation can lead to excessively tight monetary policy and reduce economic growth. Indeed inflation targeting implies that all other ultimate goals are become necessary secondary. It seems, however, that especially in the context of economic crisis, the priority must be the opposite. Price stability may be incompatible with the stability of interest rates and high employment.

MONETARY POLICY RULES

A monetary policy rule describes a systematic response of monetary policy to events in the economy. Many different monetary policy rules have been proposed and adopted around the world. Even if, as in the United States, policy makers do not determine policy according to a mechanical formula, they do respond to economic events. Their behavior and its impact on the economy are more accurately described by a systematic behavioral relationship than purely by discretion.

Monetary policy rules can be specified in two ways. The central bank can set either the growth rate of the money supply or the short-term nominal interest rate. Since almost all central banks, including the Fed, now conduct monetary policy by setting the short-term nominal interest rate, we focus on those types of rules. The Fed does not actually set the short-term nominal interest rate. To be precise, the FOMC sets a target level of a very short-term (overnight) nominal interest rate, the federal funds rate, and then keeps the federal funds rate close to its target by increasing or decreasing the money supply through open-market operations.

Fed's ultimate goal is to keep inflation low and stable and the fluctuations of real GDP small. Like many other central banks, we can think of the Fed as having a target inflation rate, a level of inflation it would like to see on average over the long term. Let π be the inflation rate and let π^* be the target inflation rate. Then, if the central bank is successful in its inflation goals, the actual inflation rate π will fluctuate around the target π^* , with the fluctuations as small as possible. The idea of an inflation target has become increasingly accepted among central bankers. In fact, some central banks are very explicit about their target inflation rate. For instance, the European Central Bank, the ECB, sets money growth with a 2 percent target inflation rate. The Reserve Bank of New Zealand seeks a range of 0 to 2 percent inflation, with an implicit target inflation rate of 1 percent. The Bank of England also has an explicit inflation target. The Fed is less explicit about a target inflation rate, but it has emphasized the importance of a low inflation rate like other central banks.

Central banks are also concerned with the fluctuations of real GDP and unemployment. Most central bankers recognize that monetary policy has no impact on the level of real GDP or unemployment in the long run; in other words, they recognize that potential GDP (Y^*) and the natural unemployment rate (U^*) do not depend on monetary policy. But they know that monetary policy affects real GDP and unemployment in the short run. Therefore, central banks try to keep business cycle fluctuations small; in other words, they endeavor to keep the gap between real GDP and potential GDP as small as possible. To derive the implications of these endeavors for monetary policy, let $\tilde{Y} = 100 \text{ times } (Y - Y^*)/Y^*$, or simply the percentage deviation of real GDP from potential GDP. Then, central bankers try to keep \tilde{Y} as close to zero as possible; alternatively stated, they try to keep the fluctuations in \tilde{Y} small.

How do the Fed and other central banks set the interest rate to achieve their long-run inflation and output-stability goals? A convenient way to describe the actions of a central bank is through a monetary policy rule, or reaction function. A monetary policy rule is simply a function that describes how the Fed, or any other central bank, sets the interest rate in response to variables in the economy. Just as consumption function describes how aggregate consumption reacts to economic variables, such as income or wealth; a policy rule describes how the interest rate reacts to economic variables, such as real GDP or inflation. The consumption function describes the behavior of consumers, while the monetary policy rule describes the behavior of Fed policy makers. Both a consumption function and a policy rule are approximations of actual behavior. The idea of describing the behavior of central bank policy makers through a policy rule is now common among macroeconomists.

One of the descriptions of a monetary policy rule for the United States and other countries is called the Taylor rule [John B. Taylor, 1993]. The Taylor rule states that the central bank raises the nominal interest rate r when real GDP is greater than potential GDP, or the GDP gap Y is positive, and when inflation is greater than the target inflation rate. The Taylor rule is given by the equation:

$$r = \pi + \beta * \tilde{Y} + \delta * (\pi - \pi^*) + R^*$$

where r is the short-term nominal interest rate set by the Fed (the federal funds rate). Both coefficients β and δ are greater than zero and indicate how much the central bank changes its setting for the interest rate r when real GDP or inflation changes. The variables Y and π have been previously defined as the percentage deviation of real GDP from potential GDP and the rate of inflation, respectively. Finally, π^* is the Fed's target inflation rate and R^* is the **equilibrium real interest rate**, the real interest rate when the economy is at full employment.

Suppose the economy is at its long-run equilibrium, so that real GDP is equal to potential GDP, or the GDP gap \tilde{Y} is zero, and the real interest rate is equal to the equilibrium real interest rate R^* . If the inflation rate π is equal to the target inflation rate π^* the nominal interest rate r equals the real interest rate R plus the **actual rate** of inflation π . Since the nominal interest rate is defined to equal the real interest rate plus the **expected rate** of inflation, the Fed's target inflation rate determines inflation expectations at the long-run equilibrium.

MONETARY POLICY IN RUSSIA

In Russia, from the 90-ies of last century to the present day, the Bank of Russia established as the primary objective of monetary policy the reducing inflation, achieving and maintaining it at a low level, the stability of internal and external purchasing power of the national currency. In the 90 years as an interim goal of Central Bank of Russia was the growth of money supply (M2). During the period of the currency corridor (from 1995 to 1998), Central Bank of Russia also established exchange rate. Operational objective in terms of monetary targeting is the monetary base and the control of the net international reserves and net domestic assets of monetary authorities control, as well as net lending agencies monetary increased and the federal government.

Nevertheless, already in the Guidelines for the single state monetary policy for 1998 ("Guidelines") was spiking about "a gradual reduction of the role of monetary targeting as a method of forming and carrying out monetary policy in terms of effective attainment of the ultimate goals." [11 The Guidelines, 1997] This was due to problems re-monetization of the economy, unpredictable decrease of lags between changes in monetary aggregates and inflation. Reducing the effectiveness of monetary targeting was recorded in the Guidelines for 2001, which highlighted the need using of in 2001 the monetary policy **the principle of inflation targeting**; in connection with this a role of macroeconomic indicators in addition to the monetary aggregates is growing.

The Guidelines in 2002 stated that the achievement of low inflation "is the best contribution monetary policy in economic development" [11 The Guidelines, 2002]. It was mentioned on two basic principles on which will be formed and conducted monetary policy. First - a continuation of the elements of the method the target inflation. Second - using M2 as an interim milestone ... ".

However, immediately in the Guidelines was pointed that currently we haven't any single figure whose relationship with the ultimate goal of monetary policy would be stable, reliable and fairly predictable, and therefore we should take into account a wide range of indicators and their impact on inflation. Nevertheless, in the Guidelines one can read that the Bank of Russia will focusing on the design parameters of the growth of M2, given the opportunity to go beyond these boundaries. The operating procedure is continued to be based on monitoring the growth of the money to continue. Here we can say that, despite all the verbal tricks, the Central Bank continued to implement the monetary targeting.

In subsequent years, the Bank of Russia was trying to dissociate itself from monetary targeting declaring that "the boundaries of growth of money supply are not rigidly defined, however, the money supply remains" an important reference point for assessing both current and inflation expectations and to determine the medium-term inflation trend. "

The Guidelines for 2006 finally appeared more definite statement on the alleged *using of inflation targeting*. In this case correctly pointed that the Bank of Russia have a limited capacity to reduce inflation during the growth of monopoly and administratively regulated prices, which requires the harmonization of measures of monetary, fiscal, tariff and structural policies.

The Guidelines for 2007 is even more promising is definitely declared objective of transition to a regime of inflation targeting and the gradual expansion of the elements of this regime:

acquires targets for reducing inflation,
medium-term goal setting,
limiting the presence in the domestic market,
increasing the role of interest rate policy.

The basic guidelines for the next, 2008 year, are only refers the necessity in the medium term (three years) a shift from programming the money supply for the use of interest rate and the transition from the management of exchange rate regime to a freely floating exchange course. It is also confirmed the line of the Bank of Russia on the use and development the elements of inflation targeting.

In the pre-crisis period the Central Bank considered sterilization of "petrodollars" again under the slogan of fighting inflation. As a result, a stabilization fund grew up, the so-called "Airbag" was swelling. Funds, that were necessary to economy diversify and modernize, were frozen, which in turn provoked a huge growth of external corporate debt (more than 0, 5 trillion. Dollars), and thus preparing the ground for the unfolding financial crisis. "Airbag", of course, was useful, but not for the real economy, but to the banks and financial speculators.

In October 2008, the guidelines for 2009 and for 2010 and 2011 were established. Here we saw "the establishment of targets growth in consumer prices in the three-year rolling period, exceeding the duration of the major lags in the effect of the transmission mechanism of monetary policy, takes into account the influence of the dynamics of money supply and decisions to adjust its trajectory to the annual inflation rate beyond one calendar year. In addition, the ad medium-term strategy of monetary policy contributes to the stabilization of inflation expectations " However, in autumn of 2008, it was already clear that in light of the unfolding financial crisis and growing uncertainty of forecasts a more or less a reliable account is impossible not only in the medium term, but the year ahead.

It is not surprising that in the Guidelines in 2010 and during 2011, and 2012 we see a more modest goal - "to complete consciousness of the conditions for the application of inflation targeting and the transition to free navigation of the ruble." The main objective of monetary policy remains the reduction of inflation to 9-10% in 2010 and 5-7% in 2012 (see Table 1).

Table 1 - Forecast rates of the monetary program for 2010-2012 (billion rubles)

	1.01.2010 (estimate)	2010				2011				2012			
	59,5 USD per barrel	1 variant (45 U.S. dollars per barrel)	2 variant (58 U.S. dollars per barrel)	3 variant (68 U.S. dollars per barrel)	4 variant (80 U.S. dollars per barrel)	1 variant (45 U.S. dollars per barrel)	2 variant (59 U.S. dollars per barrel)	3 variant (74 U.S. dollars per barrel)	4 variant (87 U.S. dollars per barrel)	1 variant (45 U.S. dollars per barrel)	2 variant (60 U.S. dollars per barrel)	3 variant (81 U.S. dollars per barrel)	4 variant (95 U.S. dollars per barrel)
The monetary base (narrow definition)	5008	5428	5710	5789	5858	6002	6566	6790	6973	6780	7617	7929	8305
Cash in circulation [outside the Bank of Russia)	4909	5321	5597	5674	5741	5885	6436	6654	6831	6649	7466	7766	8133
- Required reserves	99	107	113	115	117	117	130	136	141	131	151	163	172

Net international reserves	12095	11858	12549	13246	14142	11968	13185	14752	16756	12268	14074	16706	19891
- Billions of U.S. \$	411	403	427	451	481	407	449	502	570	417	479	568	677
Net domestic assets	-7086	-6430	-6840	-7457	-8284	-5966	-6619	-7962	-9784	-5488	-6458	-8777	-11586
Net credit to general government	4867	-2593	-3104	-3359	-4011	-1947	-2345	-3353	-4789	-1309	-1615	-3370	-5443
- net credit to the federal government	-4047	-1723	-2184	-2439	-3091	-1027	-1375	-2383	-3819	-339	-595	-2350	-4423
- remnants of the consolidated budgets of the Russian Federation subjects and state extrabudgetary funds in accounts at the Bank of Russia	-820	-870	-920	-920	-920	-920	-970	-970	-970	-970	-1020	-1020	-1020
Net credit to banks	159	-1088	-1100	-1555	-1746	-1025	-1431	-1816	-2154	-976	-1827	-2053	-2454
- Gross loans to banks	1355	1022	952	924	829	951	905	878	788	861	830	800	750
- the correspondent accounts of credit organizations, deposits of banks in the Bank of Russia and other instruments to absorb the free bank liquidity	-1195	-2110	-2051	-2478	-2575	-1976	-2336	-2694	-2942	-1836	-2657	-2853	-3204
Other net unclassified assets	-2379	-2749	-2636	-2543	-2527	-2994	-2843	-2793	-2840	-3204	-3016	-3354	-3689

* Program indexes are calculated on a fixed exchange rate, determined on the basis of the official exchange rate at the beginning of 2009.

AV Ulyukayev forms the key, in his opinion, conditions, execution of which will ensure the success of inflation targeting [12 Ulyukayev AV, 2009]:

- macroeconomic stability and a balanced fiscal policy;
- developed financial system;
- independence of the monetary authority;
- clearly understood and well-working channel of monetary transmission;
- availability of qualitative methodology of forecasting inflation;
- regular reporting and transparency of monetary regulation.

AV Ulyukayev noted that inflation targeting is frequently criticized. But it is not just criticism, but objectively existing shortcomings of the regime. He really thinks that the Central Bank must concentrate on the inflationary purposes, making minor other purposes - employment and economic growth.

Inflation targeting was highly critical of such an author as J. Stiglitz [10 Stiglitz, J, 2008]. He notes that "inflation targeting - the principle that whenever price growth exceeds a target level, interest rates should be raised. Theoretical foundations and empirical evidence that can back up this tough recipe, not nearly enough, there is no reason to expect that regardless of the source of inflation increase in interest rates would be the best answer. We must hope that most governments have enough sense to abandon the idea of introducing inflation targeting in their countries. In particular, this council relates to developing countries where high inflation is not really linked to the quality of macroeconomic management. Under these conditions, the reduction of inflation by raising interest rates would entail "significant economic downturn and high unemployment. The drug proved to be more dangerous than the disease itself".

STATE MONETARY POLICY MODELING

To solve the problem of constructing a computable simulation model of the Russian economy we must answer on the following questions: methodology issue; establishing the purposes of the model; selection tools [1 Afanasyev V., Solovyev V., Zhilkina A, 2009].

An important element is the identification of priority goals, in our case – it is the real economy. The global financial crisis has shown that even healthy companies can face unexpected challenges, be forced to turn production, lay off workers, to change the usual methods of management.

The basis of this trend is a fundamentally new approach to modeling economic processes by creating a so-called computable models of general equilibrium, known in literature as Computable General Equilibrium models (CGE models). The first work on computational models was assumed by Swedish scientist Johansen in 1960. However, the most common computable general equilibrium model (Computable General Equilibrium models, abbreviated CGE) received in the past three decades. The predictive power of these models was based mainly on historical data, and the main drawback was based on behavioral-sky perspective that severely limits their predictive power. Beginning with the 1990's the situation began to change.

In our country the first computable model of economic equilibrium Russian economy was developed in 1999 by Academician Makarov - Model RUSEC (RUSSian EConomy) Model RUSEC operates various macroeconomic indicators such as GDP, budget, money supply, the price level by sector. As of the quality of economic agents in the model are considered:

- four aggregates producer (state, market, budget, and the informal sector),
- aggregate household,
- three types of governments (federal, regional and criminal),
- the banking system (central bank and commercial banks) ,
- CIS countries and the rest of the world.

Model RUSEC calibrated according to the statistics of Goskomstat RF. The purpose of calibration - to bring all calculated in the model variables (output, prices, inflation, employment, wages, investments) in line with the actual data (Goskomstat). RUSEC model is very flexible. It allows to integrate into model any relationship between the indices, for example, using econometric analysis.

CONCLUSION

The competitiveness of any economy, including due to globalization, is influenced of many factors. In these conditions, the monetary policy of the state, which aims at High level of employment, Economic growth, Price stability, can be realized through targeting. The achievement of these objectives should be implemented to promote a model of economic growth in Russia.

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TOWARDS A WEB SERVICES ADOPTION FRAMEWORK

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ABSTRACT

Web Services have become synonymous with Application Programming Interface (API) or web API's accessible over the network. Definitions of Web Services can also be confusing since they are used in many different ways and approaches. With these differing views businesses are then confronted with challenges on how Web Services can be used in their environments. Web Services adoption remains and continues to be a challenge that requires investigation. This paper proposes a framework for the adoption of Web Services. The discussion in this paper is relevant for many readers and not just IT experts. The framework will be a result of the research study that will be conducted focusing on businesses that intends to adopt Web Services, in the process of adoption or have already adopted Web Services. The paper aims to challenge the presentation of Web Services as a "black box" that is complex to understand and thereby requiring technical IT experts to aid in the adoption. There is a need to explore on the implementations of Web Services solutions and the potential roadblocks in the adoption of the technology.

INTRODUCTION

A Web Service is a software system designed to support interoperable machine-to-machine interaction over a network; Web Service are also known to have an interface described in a machine-processable format that is mostly Web Service Definition Language (WSDL) (Web Service Architecture, 2010). In addition Web Services refer to technologies but allow for making connections (Service-Architecture, 2010). The technology of Web Services is also the most likely technology for SOA (Services Orientated Architecture) implementation; Web Services essentially use XML (Extensible Markup Language) to create a robust connection (Service-Architecture, 2010). With all these definitions there is a growing discomfort and confusion about the requirements when business is adopting Web Services. The paper aims to extend on initiatives made by studies conducted by businesses and research institutions on Web Services.

Web Services were initially intended for use over the Internet but they have since gained adoption inside the firewalls of enterprises (Newcomer, 2007). This is interesting since it signifies the conservative, cautious and careful nature of adoption. According to Newcomer (2007), Web Services specifications can be improved or re-focused to define an interface between the Web and existing enterprise systems.

The remainder of this paper is organized with the next section describing the background on Web Services and the founding elements of technology adoption. Section 3 considers a poll conducted on Web Services. Section 4 addresses some of the strategic implications for Web Services adoption. Section 5 examines the underpinning essentials that need to be considered for the Web Services community. Section 6 discusses the supporting and related concepts, these are the latest challenging, competing and complementing concepts related to Web Services. Section 7 details the Web Services adoption framework. Section 8 details the proposed framework for Web Services adoption. Section 9 lists some lessons learned. Finally section 9 is the conclusion, which will focus on the items discussed, the future of the study and related work.

BACKGROUND

With the hope of Web Services to evolve into a true platform for a global network of applications, there needs to be a provision of a richer and more solid foundation for interoperability (Daniels, 2001).

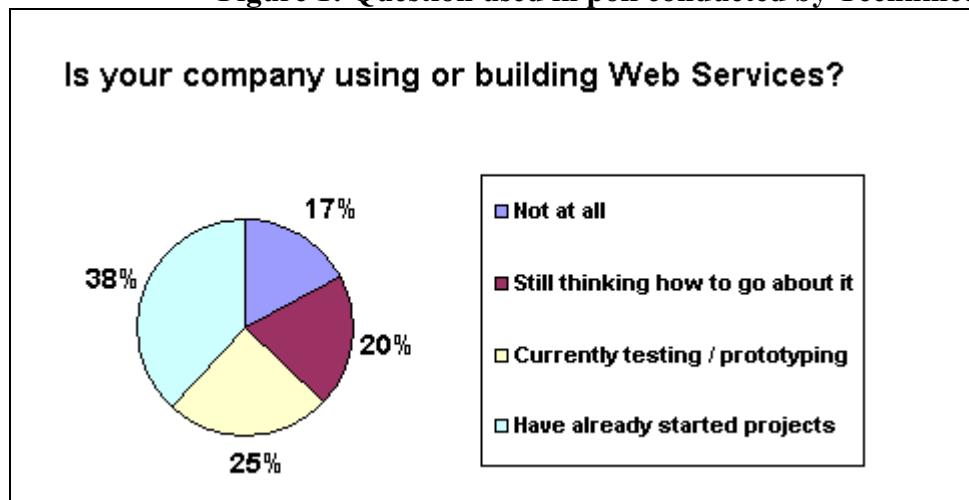
The success of Web Services (Daniels, 2001) indicates that there needs to be some high-level standards in areas of service description, service delivery and basic enterprise-level extensions such as security, reliable messaging and transactionality. According to Guillaume (2004), the ever-increasing adoption of Web Services demands future solutions that seamlessly transition between the varieties of communication channels. The best solutions will allow a single content source tailored to all available channels (Guillaume, 2004). This is a clear sign that there is a need for standardized communication that can be understood by any service consumer.

SOAP (Simple Object Access Protocol), WSDL (Web Services Description Language) and WS-* (Web Service) specifications are being used for applications inside the enterprises (Newcomer, 2007). While these are considered successful areas of Web Services adoption, the interpretation and significance of WS-* trends vary considerably from product to product and application to another (Newcomer, 2007). These are some of the literature reviews that prove that the Web Services adoption phenomenon needs further investigation.

RESEARCH CONDUCTED ON WEB SERVICES

A quick poll conducted by Technmetrix (Cimetiere, 200b) in a month with the following question: "Is your company using or building Web Services?" yielded results as depicted in the below diagram:

Figure 1: Question used in poll conducted by Technmetrix



Source: http://www.intranetjournal.com/articles/200109/ptm_09_12_01a.html,
Intranet Journal. January 16, 2010.

There were 81 respondents; this was however deemed to be lower compared to previous polls conducted by the company. 38% of the respondents had started projects, 25% were testing or prototyping. It appeared that those familiar with and concerned about Web Services were most likely to cast their vote. With 82% of the respondents having some knowledge or projects; this is a demonstration that there is a growing interest in the use and building of Web Services.

STRATEGIC IMPLICATIONS FOR WEB SERVICES ADOPTION

There are strategic implications related to the adoption of Web Services that need to be considered by business decision-makers. Business decision-makers should also evaluate the financial and strategic value of architectural

decisions such as the adoption and implementation of Web Services. The participation by business decision-makers is important since they will determine if the organisation continues with the proposed adoption or not.

Service grids are described by Hagel and Brown (2002) as critical architectural components required for realising the business potential of Web Services. There is an opportunity for a diverse array of businesses to form and create significant economic value through service grids' distributed service technology. The pace and scope of service grid deployments are cited as going to significantly affect the adoption of Web Services technology (Hagel and Brown, 2002).

A precaution by Farrel and Akkiraju (2005) indicates that integration and process automation projects are often expensive and time consuming even with Web Services, and may not result in solutions that are flexible and reconfigurable as needed to best react to today's dynamic environment.

UNDERPINNING TECHNICAL ESSENTIALS FOR WEB SERVICES ADOPTION

The decision to adopt Web Services in an organization is an important one. This decision needs to be made with an informed set of guidelines that maintain a balanced view on what is required, what is available, and what is good for the business. Informed by extensive literature this study has identified underpinning essentials to be considered in the adoption of Web Services. These essentials need to be understood clearly in order to make decisions in the adoption process. The remainder of this section will discuss some of these essentials.

1.1 Services defined

A service is a function that is well defined, self-contained, and does not depend on the context or state of other services (Service-Architecture, 2010). This is a very simple definition that is aimed to assist a reader of this paper. It is essential for the services to be clearly defined and understood. These services will be central to the adoption process.

1.2 XML and HTTP

XML is an acronym for Extensible Markup Language. HTTP is an acronym for Hyper Text Markup Language. These are key concepts that will always feature in discussions on Web Services.

1.3 Web services Platform elements

W3schools (2010a) defines three Web Service platforms; these are discussed further in this section.

SOAP is an acronym for Simple Object Access Protocol. SOAP is defined as an XML-based messaging protocol that defines a set of rules for structuring messages that can be used for a simple one-way messaging but is particularly useful for performing RPC (Remote Procedure Call) style requests and responses dialog (Soapuser.com, 2010). W3schools (2010b) describes SOAP as providing a way to communicate between applications running on different operating systems, with different technologies and programming languages.

WSDL (Web Services Description Language) is based on XML, used to describe and locate Web Services (W3schools, 2010a). It is essential to know where Web Services listings are can be found.

UDDI (Universal Description, Discovery and Integration) is a directory service where companies can register and search for Web Services that communicates via SOAP (W3schools, 2010a).

1.4 OWL-S

OWL-S is an acronym for Ontology Web Language for Services (Martin *et al.*, 2010). OWL-S is a Semantic Web Service technology that is developing the means by which services can be given richer semantic specifications thereby enabling fuller, more flexible automation of service provision and use. It also supports the construction of more powerful tools and methodologies (Martin *et al.*, 2010).

1.5 Types and Styles of Web Service use

1.5.1 Types of Web Services uses

Firstly there is the reusability of application-components that offers application-components such as currency conversions, weather reports or even language translations as a service. Second there is connecting existing software, this helps to solve the interoperability problem by giving different applications a way to link their data.

With Web Services data can be exchanged between different applications and different platforms (W3schools, 2010a).

1.5.2 Style of Web Service use

There are three most common Web Services uses defined by Wikipedia (2010), namely RPC, SOA and REST.

1.5.2.1 Remote Procedure Call (RPC)

In Remote Procedure Call (RPC) according to Wikipedia (2010), Web Services present a distributed function or method call interface that is similar with many developers, typically with the basic unit as WSDL operation. RPC is often implemented by mapping services directly to language-specific functions or method calls, thereby being criticized for not being loosely coupled.

1.5.3 SOA

1.5.3.1 General SOA

A technical definition by Gartner (Natis, 2003) indicates that SOA is a software architecture that starts with an interface definition and builds the entire application topology as a topology of interfaces, interface implementations and interface calls.

Coetsee (2009) defines SOA as an architectural style in which a system is composed from a series of loosely coupled services that interact with each other by sending messages. This definition also emphasizes the importance of messaging and decoupled services. The decoupled nature of the services in SOA assists Web Services to communicate with no binding of functions.

SOA provides a stable architectural foundation for Web Services to operate.

1.5.3.2 SOA Gateway

SOA Gateway allows for the runtime governance of services and transactions. This provides the means to aggregate the services of an enterprise in one consolidated location and centrally enforce reusable policies with regard to access control, security and monitoring (SOA Gateway, 2009). An organisation requires a SOA Gateway to ensure that Web Services are well managed.

1.6 Representational State Transfer (REST)

Representational State Transfer (REST) attempts to describe an architecture which uses HTTP or similar protocols by constraining the interface to a set of well-known, standard operations like GET, POST, PUT, DELETE for HTTP. The focus is on interacting with stateful resources rather than methods or operations. An architecture based on REST can use WSDL to describe SOAP messaging over HTTP, which defines operations (Wikipedia, 2010).

SUPPORTING AND RELATED CONCEPTS

There are key concepts that support and are related to Web Services. This section addresses a number of these concepts and how they impact and affect the adoption of Web Services. The concepts to be explored may be competing and complementing of Web Services adoption.

1.7 Software as a Service (SaaS)

SaaS is an alternative for Web Services; SaaS has grown in popularity (Newcomer, 2007). SaaS also proposes extending the Web-Architecture for use in the enterprise systems as an alternative for Web Services. SaaS is a competing technology to Web Services.

1.8 Cloud Computing

Cloud computing is an emerging computing technology that uses the Internet and the central remote servers to maintain data and applications. Cloud computing allows consumers and businesses to use applications without installation and access their personal files on any computer with Internet files.

Cloud computing extends the concept of SOA further by providing a dynamic SaaS at a lower cost and on-demand services; this is according to the SOA Gateway (2009). The success of cloud computing for enterprises transactions will depend on solving the core business concerns of reliability, security, access control and accountability (SOA Gateway, 2009).

1.9 Ubiquitous Computing

Ubiquitous Computing (Dix *et al.*, 2004:260) relates the concept of computing happening everywhere, the actual form of the physical interface is described as having been transformed from a noisy teletype terminal to a large, graphical display with Windows Icons Menus Pointers (WIMP) or natural language interface.

According to Gartner (Natis, 2003) the ubiquitous Web Services standards enhance the mainstream appeal of SOA. This however needs caution since there is potential for great success and great failure by an attempt to implement SOA. Ubiquitous Computing is a related and supporting concept for Web Services.

ELEMENTS FOR WEB SERVICES ADOPTION

It is important to note that the Web Services adoption process is not limited to the technical and related concepts discussed in the previous section. This section investigates and proposes a checklist of other elements that are required in the adoption of Web Services. These elements are important since the decision to adopt must be approved by business. The decision will be derived from the value that will be created by adopting Web Services and not just the IT department.

1.10 Business Considerations

Business benefits need to be considered. The strategy of the organisation needs to be taken into account before technology approval can be issued.

1.11 Web Services Architecture (WSA)

The Web Service Architecture (WSA) according to Booth *et al.* (2004) provides a conceptual model and a context for understanding Web Services and the relationships between the components of this model. The architecture does not attempt to specify how Web Services are implemented and imposes no restriction on how Web Services might be combined. The WSA describes both the minimal characteristics that are common to all Web services and a number of characteristics that are needed by many, but not all Web services.

1.12 Web Services value chain

Cimetiere (2001a) identified five levels for the Web Services value chain. They are listed as follows:

- Application Server Infrastructure;
- Standards (XML, SOAP and WSDL);
- Web Services Server (Security, authentication, session and others);
- Web Services Developers (Develop the Web Services); and
- Web Services Marketers (Sell the Web Services)

1.13 Web Services Specifications

Web Services specifications are generally referred to as WS-*. Four items have been identified for this section (Wikipedia, 2010). The first specification, WS-Security defines how to use XML Encryption and XML Signature in SOAP to secure messages exchanges. The second WS-Reliability is an OASIS standard protocol for reliable messaging between two web services. The third one, WS-Transaction is a way of handling transactions. The last one, WS-Addressing is a standard in the SOAP header. These specifications are key elements to consider when adopting Web Services since they have been developed to extend Web Services' capabilities.

WEB SERVICES ADOPTION FRAMEWORK

From all the preceding sections, the below diagram represents the framework for Web Services adoption:

Table 1: Web Service Adoption Framework (WSAF)

Business →	IT Strategy →	Technical →	Support and service producer →	User and service consumer
<ul style="list-style-type: none">• Reuse• Quick to market• Clearly	<ul style="list-style-type: none">• Web Service value chain• Types of Web Service use	<ul style="list-style-type: none">• Style of Web Service use• Web Service specifications	<ul style="list-style-type: none">• Service grids• Local support• External and consultant support	<ul style="list-style-type: none">• XML• SOAP• WSDL• UDDI

defined business services	• Web Service architecture	• Web services Platform elements		
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Source: Own adaptation

Some elements of the Web Service adoption framework (WSAF) are based on the ITIL (Information Technology Infrastructure Library) framework which is an international benchmark for IT service management. Five focus areas are defined, namely: Business, IT Strategy, Technical, Support and producer and User and consumer. These focus areas featured have sub elements that need to be considered. The flow direction of the framework is from business objectives down to the user and service consumer level.

LESSONS LEARNED

Here are some lessons learned during the study:

- A key learning point was that Web Services are aimed at providing a foundation for easier system integration by providing a standards-based approach (Farrel and Akkiraju, 2005).
- Web Services adoption needs to have both business and IT strategy buy in;
- Costs of adoption and flexibility need to be taken into account;
- There are essentials that need to be addressed before Web Services adoption can take place;
- Numerable businesses have started and are making efforts towards the adoption of Web Services; and
- A Web Services Framework is necessary to keep all key adoption items in check.
-

CONCLUSION

It is important to have a Web Services Adoption Framework (WSAF) since it will ensure that there is a guideline that organizations can follow in the adoption of Web Services. Lists of key elements that make up the framework were presented. This will also help enterprises to ensure that they do not miss the key elements that are essential for the adoption of Web Services in both business and technical specifications.

Future works aims to apply the framework in organizations and investigate the experiences and value derived from use. Depending on the findings the framework could be upgraded.

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CYBER-DIGITAL PLAGIARISM ON NOVICE RESEARCH: AWARENESS ON MISCONDUCT

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ABSTRACT

More often than not, there exists some form of infringement relating to the use of other authors' work. E-Plagiarism is the intentional taking of another person's work, and claiming it as one's own, while a novice researcher is a first-time and inexperienced researcher. A question now is - how should e-plagiarism be eradicated from the use of another author's works desperate first-time authors of articles? This article looks into some ways of circumventing e-plagiarism and also as a means of providing guidance to novice authors against e-plagiarism.

INTRODUCTION

Plagiarism within the cyber-digital environment is a subtly vexed phenomenon amongst the first-time authoring and research community within the global writing fraternity. The rationale behind this stems from the fact that the contribution to a general body of knowledge should at all times be authentic and also from the fact that every institution is the mirror through which all novice researchers (NRs) can gauge their prosperity thus creating positive image and contribution in their academic careers. This is done, amongst other things, through publications of the first-time writings and articles. This descriptive article aims to dissuade novice authors against plagiarism within cyber-digital environment using the Internet as a research tool.

METHODOLOGY

The methodology applied in putting together this article is qualitative; having the digital resources such as firstly, e-books - secondly, e-articles and thirdly, national and international e-legislation including *rationes decidendi* of decided cases, all groundedly juxtaposed through the Web. In accomplishing the objectives, all the categories of these sources have been triangulated.

NOVICE AUTHORSHIP

A NR, from this context is a first-time and a not-very-experienced author who, after writing the article, expects it to be published in the acknowledged journals for the recognition of his/her knowledge within the cyber-digital environment for that specific area of excellence. Except for the usual common mistakes made by NR's when preparing a digital manuscript for submission, ranging from major, to minor, there is generally a propensity that the first-time authors copy directly from the works of other authors without permission, thus committing misconduct, and thus, e-plagiarism.

MANIFESTATION OF E-PLAGIARISM

Plagiarism is the intentional taking of another person's work, and claiming it as one's own. This practice has been observed not only amongst first-time researchers at every level, but also amongst academics, administrators and professional researchers publishing in peer reviewed acknowledged journals. Infringement is infringement when it infringes upon another person after which it manifests itself into e-plagiarism.

References and Citations

Previous studies **are** used to provide support for an author's proposed rationale for a research study. In order to assess the validity of the cited studies, editors and reviewers must have the opportunity to review the original source material if necessary. Inaccurate citations can be a significant barrier to this process. NR seeks to **advance** a specified field of study by building on studies that have been conducted and reported.

The use of select references allows NR to build a case justifying an approach to a research question. It should be noted, however, that if the writer had used these phrases or sentences in his/her own paper without putting quotation marks around them, he/she would be *e-plagiarising*. Using another person's phrases or sentences without putting quotation marks around them is considered *e-plagiarism* even if the writer cites in his/her own text the source of the phrases or sentences he/she has quoted.

What should be Common Knowledge?

Quotation: using someone's expressions. When quoting, one has to place the passage one is using in quotation marks, and document the source according to a standard documentation style. Failure to do this amounts to infringement and thus, *e-plagiarism*.

Paraphrase: using someone's ideas, but putting them in one's own words. This is probably the skill one should use most when incorporating sources into one's writing. Although one uses one's own words to paraphrase, one must still acknowledge the source of the information. Failure to do this amounts to infringement and thus, *e-plagiarism*.

CYBER-DIGITAL ENVIRONMENT

Digital Content Protected

Cyber-digital content has the same protections under the Copyright Act of 1978, including those of The US, Australia and Europe, as analog works. Digital content consist of electronic versions of books, graphics, video, audio, music, Web sites and online databases, *etc.* Using digital content requires permission that is beyond the scope of fair- use doctrine. What follows are examples of the type of digital content to be protected: E-books, digital video, digital audio, graphics, e-mail, Web sites and embedded works on Web site.

Electronic Reserves

Electronic Reserves is an extension of traditional library reserves managed according to fair-use exclusions and the rights of cyber-copyright holders as embodied in the current copyright law. Materials may not be placed on electronic reserves without permission of the cyber-copyright holder if the nature, scope, or extent of e-copying exceeds the reasonable limits of the fair-use doctrine (Hamette, 1992; Harper, 2001) available at <http://www.utsystem.edu/OGC/IntellectualProperty/fairuse.ht>. [Accessed on 18/12/2009]. If this be the case it will amount to *e-plagiarism*.

The Web 2.0

The Web 2.0 is a conglomeration of tools, including the Internet which has become a more popular source of information for NR papers, and many questions have arisen about how to avoid *e-plagiarising* these sources. If a writer wants to use virtual information from a WWW site, many of the same rules apply (Ginsburg, 2000; Ferrera *et al.*, 2001) Thomas Learning site about which e-plagiarism and these tools can be accessed is available at <http://lcweb.loc.gov/copyright> [Accessed on 29/12/2009].

E-copying visual information or graphics from a WWW site is very similar to quoting information and the source of the virtual information or graphic must be cited. Failure to do this amounts to infringement and thus, *e-*

plagiarism. Some authors such as Brinson *et al.* (2001) and Buys and Cronje (2004) conclude that it is advisable that it should always be in writing for future reference and evidential purposes.

FAIR-USE DOCTRINE

The *fair-use* doctrine refers to an aspect of copyright law that provides for the licit, non-licensed citation or incorporation of cyber-copyrighted material in another author's work under certain, specifiable conditions. According to one author, the term "fair-use" is not unique to some countries like South Africa; a similar principle, fair dealing, exists in some other common law jurisdictions (Patry, 1995; Masango, 2009) available online at http://www.wordiq.com/definition/Fair_dealing [Accessed on 15/12/2009].

The fair-use doctrine makes cyber-copyrighted work available to the public as raw material without the need for permission or clearance, so long as such free usage serves the purpose of copyright law. It may be argued that this tantamount itself to the work in the public domain. The doctrine, also advocated (Siriginidi Subba Rau, 2003), hereby attempts to balance the interests of individual cyber-copyright holders with the social or cultural benefits that follow from the creation and distribution of derivative works. It has been related to *fair dealing* in most respects.

The information on e-copyrights, Carter (1996), guidelines on educational use of e-copyrighted materials and crash course on e-copyrights, all available online at <http://www.wordiq.com/definition/Copyright> [Accessed on 15/12/2009], <http://publications.urel.wsu.edu:80/copyright/CopyrightGuide/copyrightguide.html> [Accessed on 7/12/2009] and <http://www.utsystem.edu/ogc/IntellectualProperty/cprtindx.htm>. [Accessed on 7/12/2009], respectively.

Ethical Responsibility

Ethically (Gregory, 2003), ethics form a cornerstone of every form of research by every researcher whether veteran or novice. Some authors such as Leonard & Cronan, (2001) and Leonard *et al.*, (2004) extend this by conceptualising this description further and say that ethical morality refers to the principles of right or wrong but individuals acting as free moral agents, use to make choices to guide their behaviour.

Quite a number of authors have advocated the issue of ethics and moral conduct for NRs as opposed to misconduct (Ackermann & Britz, 2006). This academia includes some renowned authors (Masango, 2007-2009; MacDonald *et al.*, 2002 Leonard & Cronan, 2001; Leonard *et al.*, 2004 and Lahore & Rothnie, 2004).

Determining Fair-Use Doctrine: the Four Factors

Fair-use doctrine is the most significant legal principle pertaining to and in respect of limitation of the cyber-copyright holder's exclusive rights. It is not a science deciding whether the use of a work is fair. There are no set guidelines that are universally accepted. Instead, the NR who wants to use a cyber-copyrighted work must weigh four factors (Fausette, 2007), *viz.*, the purpose and character of the use, the nature of the e-copyrighted work, the amount and substantiality of the portion used and the effect of use on the potential market for the e-copyrighted work. *Will the expression by the author be used? Will the use go beyond the fair-use? Is the expression protected by copyright? (Dodge & Kitchin, 2001; MacDonald, 1999) available online at <http://www.copyright.com.au/reports%20&%20papers/new%20communications%20environment.pdf> [Accessed on 09/12/2009].*

E-PLAGIARISM

E-Plagiarism, as opposed to cyber-ethics (Quinn, 2005; Spinello, 2006; Elgar, 2005; Halbert & Ingulli, 2005). is the practice of claiming or implying original authorship, in whole or in part, into one's own without adequate acknowledgement (AHDEL, 2005. Available online at http://www.geneseo.edu/~elmore/Why_plagi... [Accessed on 14/12/2009]). What visibility, if any, of policing or law enforcement agencies do computer community in its entirety, experience in combating this cybercrime, like any other crime? If there is, granted, meaning that there is indeed a substantial amount of deterrence. If not, then, there is and will still be, a huge unlawfulness riddling research seen as a whole unless something pervasively urgent is done about it.

Internet Plagiarism: Deterring Misconduct

As more researchers use the Web 2.0 for research, the temptation to e-plagiarise has greatly increased. Regarding Internet Plagiarism, it is imperative to ask the following questions: have NRs a clear understanding of what constitutes misconduct? What are the procedures by which incidents of e-plagiarism are handled? Rebecca Moore Howard proposes a model policy in which she includes the following explanation of *e-plagiarism*:

“... Writers must acknowledge the sources not only of words, but also of ideas, insofar as is possible, even when they are not quoting word for word from the Web. Moreover, in final-draft writing, writers may not paraphrase a source by using its phrases or sentences, with a few changes in grammar or word choice - even when the source is cited begins and ends.”

Howard's *Plagiarism* Policy: three categories

Cheating . . . the act of borrowing, purchasing, or otherwise obtaining work composed by someone else and submitting it under one's own name . . . *Non-attribution* . . . "writing own's paper but including passages copied exactly from the work of another regardless of whether that work is published or unpublished or whether it comes from a printed or electronic source . . . and *patch-writing* which involves the practice of writing passages that are not copied exactly, but then have been borrowed from another source, with some changes. Howard notes that in *The Bedford Handbook for Writers* the definition of patch-writing as "paraphrasing the source's language too closely". In addition to descriptions of these three forms of e-plagiarism, Howard's policy also provides examples of each type of e-plagiarism and lists the appropriate retribution for each level of misconduct.

How Can NR Avoid E-Plagiarism?

To avoid e-plagiarism, one must give credit whenever one uses another person's idea, opinion, or theory; any facts, statistics, graphs, drawings—any pieces of information that are not common knowledge; quotations of another person's actual spoken or written words; or paraphrase of another person's spoken or written words. These guidelines are taken from the Code of Student Rights, Responsibilities, and Conduct available online at the above link or at <http://www.edu/~code> [Accessed on 13/01/2010].

What to expect from Advanced PlagiarismDetect.com

PlagiarismDetect.com offers 100% e-plagiarism detection in any written content using novelty multi-layered technology. It offers convenient and fast search, which will save a lot of time, instead of googling every sentence. It also offers user-friendly e-plagiarism checker interface. Detailed e-plagiarism results display, which points out the most problematic fragments of one's text. These are coupled with detection without saving text to any databases, to avoid any problems with further e-plagiarism check. Lastly, PlagiarismSearch.com provides an accurate e-plagiarism detection reporting without any delay.

INTERNATIONAL CONTEXT

Within the International arena, SA may not entirely rely on its own IP laws for cases involving reproductive technologies. It also has to keep abreast legislation of other countries such as Digital Millennium Copyright Act (DMCA) 1998, Copyright Amendment (Digital Agenda) Act 2000 and the European Directive of the US, Australia and Europe respectively. For the purposes of Management and Government Information Systems the same ought to be true in respect of the MIS and GIS of Federal States of the US, Australia and that of Europe respectively.

CONCLUSION

Stripped to its essence, it is no wonder that in Cyber-digital environmentalist researchers often do not understand just how much leeway they have in using other people's work. The law seems confusing, ambiguous, and unclear because of lack of cyberspace policing. Most interestingly on the other hand, it is said, for instance that an academic who does not publish, will perish (Band, 2008 available online at

<http://www.policybandwidth.com/doc/20080523PublishANDPerishFinal.pdf> [Accessed on 14/12/2009]. This encourages some form of pressure on e-plagiarism, something that should be done with at once. *E-Plagiarism* is a serious act that can have consequences that the plagiarist may not be ready to accept for their behaviour. If caught e-plagiarising the punishment is harsh. If e-policing was virtually seen to be done, e-plagiarism would, to a larger extent, be combated.

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INSTITUTIONAL BASIS OF SUSTAINABLE DEVELOPMENT

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ABSTRACT

Recently more often there are such terms as: "development", «development strategy», «economic growth», «sustainable development» and others in the popular scientific literature and in the performances of politicians, and in many cases these concepts are used as synonyms, without seeing a special difference between them. Analyzing the economic results of Russia's development in 2000-2008 it is possible to notice that the country has reached high indicators of economic growth that as crisis has demonstrated once again, it is not an analogue of the economic development.

In this article authors have presented their vision of sustainable economic development, and have made an attempt to its institutional basis revelation.

Concept "growth" and its rates expresses quantitative change of structure and interrelations of system, hence, growth should not be identified with development. Growth is directed on quantitative increase in scale of economy in its physical measurement. It assumes increase in volume and speed of the material and energy flows passing through economy, quantitative growth of the population and increase in volume of stocks of products of human work. Development means qualitative improvements in structure, designs and compositions of physical volumes and flows.

INTRODUCTION

Economic systems of any level are dynamic systems, that they are in constant change which have both quantitative (growth), and qualitative measurement (development).

One of the first differentiation between economic development and economic growth was carried out by I. Shumpeter who has proved discrepancy of two considered categories. In its representation economic development opens two characteristics:

- internal changes in the economy, not connected from the outside, breaking developed economic balance and explaining non-uniformity of economic growth;
- changes in the economy, connected not with quantitative growth, and with qualitative shifts, that is with technological innovations.

Quantitative change of structure and interrelations of system are expressed by concept "growth" and its rates, hence, growth should not be identified with development. Growth is directed on quantitative increase in scale of economy in its physical measurement. It assumes increase in volume and speed of the material and power streams passing through economy, quantitative growth of the population and increase in volume of stocks of products of human work. Development means qualitative improvements in structure, designs and compositions of physical volumes and streams.

After the Second World War the most widespread interpretation of economic development among the western economists, among which W.Rostou, P.Rozenshtein-Rodan, F.Harrod, E.Domar, R.Nurkse, A.Hirshman, H.Chinery, M.Bruno, A.Strouti (Keynesian school); A.Luis, J. Fei, G.Rani, J. Boyk, D. Jorgenson (neoclassical school); its understanding as the process of structural changes caused by growth of the income per capita became A.Emmanuel, S.Furtado, R.Prebish, P.Baran, S. Amin (institutional school). But, firstly, income of the population growth is only one of many factors of national economy development. Secondly, in development process not only system structure (structure and communications) but also relations between system components,

and also the mechanism of functioning of national economy changes. Thirdly, change of structure of economy is one of results of economic development, hence, the second cannot be defined through the first.

In the Declaration on the Right of Development, accepted by General Assembly of the United Nations in December, 1986, development is defined as the all-round economic, social, cultural and political process directed on constant increase well-being of the population on the basis of its active, free and constructive participation in development and in fair distribution of the created blessings.

In the literature there is a set of interpretation of sources of economic development. One group of authors (L.Baltserovich, L.Bezchasny, G.Murdal, A.Kruger, H. Thomas) connects economic development with increase of well-being, incomes per capita, improvement of quality of a life, increase of degree of satisfaction of the main requirements of all members of a society. The second group (B.Gabovich, G.Clark, D.Lukyanenko) focuses attention on the most general laws of economic development: its cyclic character, communication with progress and growth, evolution and expansion. The third group (R.Nureev, S.Enke, G.Arndt) places emphasis on complex, multidimensional character of this process that includes radical changes in technical, economic, social relations, political, in the field of an infrastructure, technologies, formation, and also in domination of primary factors of manufacture: the capital, natural resources, work.

DIFFERENT APPROACHES TO SUSTAINABLE DEVELOPMENT

Going into a sustainable development trajectory became the global purpose of economic transformation of social and economic systems. In effect the sustainable development concept became qualitatively new approach to problems which either were not noticed earlier, or were not realised as important, or were considered not concerning sphere of an economic science.

The sustainable development is understood as long continuous development which satisfies requirements of the present generation, but does not threaten ability of the future generations to satisfy own requirements.

The sustainable development concept is based on the five principles.

1. The mankind is really capable to give to development long-term character so that it met requirements of recent people, without depriving thus the future generations of possibility to satisfy the requirements.
2. Available restrictions in the field of operation of natural resources are relative. They are connected with modern level of technics and the social organisation, and also with ability of biosphere to cope with consequences of human activity.
3. It is necessary to satisfy elementary requirements of all people and to all to give possibility to realise the hopes of more safe life. Without it steady and long-term development simply is impossible.
4. It is necessary to co-ordinate a way of life of those who has the big means (monetary and material), with ecological possibilities of a planet, in particular concerning energy consumption.
5. The sizes and rates of increase of the population should be co-ordinated with the varying productive potential of a global ecosystem of the Earth.

Modern interpretation of concept "sustainable development" has considerably extended — to consolidation of three basic points of view: economic, social and ecological. Initial sense of concept "sustainable development", and also main objectives of the concept with each new forum considerably changed: a difference between the purposes of the Stockholm Declaration (1972) and Declarations of Millenium are obvious. In spite of the fact that in 1980 in the report «World strategy of wildlife management» necessity of the account of economic, social and ecological factors was already underlined, however only since 90th years a sustainable development began to be considered as set of three components: ecological integrity, economic efficiency and fair conditions in access to the blessings. (Fig. 1.)

Other scientists approach to sustainable development definition, as for example at Institute of the sustainable development created on the basis of College of the nations of Menominee more widely, including in it such elements, as the sovereignty, environment, institutes, technologies and a society, economy, culture.

This approach to a sustainable development is integration of national wisdom, knowledge, values, agreements, and methods which considers stability as continuous process of an establishment of balance between six measurements of a life of community. These measurements illustrate difficult interrelations between historical, social, cultural, and spiritual bases of a life.

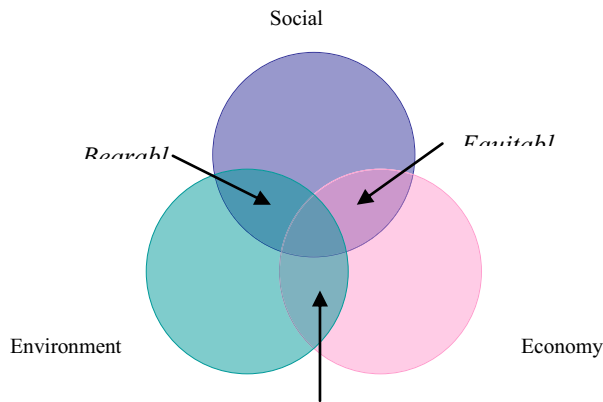


Fig.1 Components of the sustainable development (classical approach)



Fig. 2. Components of the sustainable development (Menominee approach)

This theoretical model conceptualizes sustainable development as the process of maintaining the balance and reconciling the inherent tensions between the various dimensions of sustainability. Each dimension is understood to be dynamic, both in respect to its internal organization and in relationship to each of the other five dimensions of the sustainable development process. The model takes its point of departure that change within one dimension will impact other dimensions in an ever-unfolding diffusion of responses to change, whether externally driven or inherent to the dynamism of a specific dimension.

At level of corporations a sustainable development often represent as interaction of the financial, natural, social, human, physical capital (Fig. 3).

INSTITUTIONAL BASE OF SED

Nevertheless, turn to a new paradigm of development can occur only as a result of expansion of problems of the economic theory and change of the purposes of development. The special role in it belongs to formation of institutional bases of sustainable development.

The institutional environment as set of the basic social, political legal and economic rules defining frameworks of behaviour, is considered as the means providing transition to a sustainable development.

According to «Agend XXI» institutional environment belongs to one of four measurements of a sustainable development in which economic, ecological and social components also are presented. Thus institutional environment is considered as the means providing stability of development as a whole, regulating interaction of each of systems, and being a basis of development of all other systems.

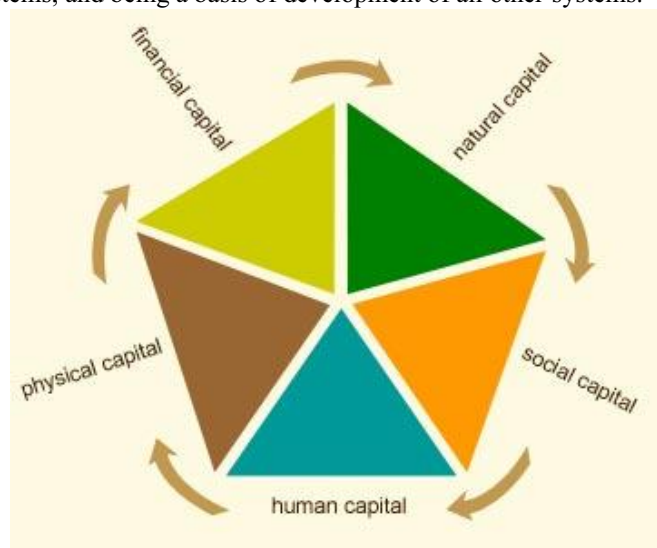


Fig. 3. Components of the sustainable development (Corporate approach)

In the Concept of transition of the Russian Federation to a sustainable development it is told: «Transition to a sustainable development will demand the co-ordinated actions in all spheres of a the society life and adequate to reorientation of social, economic and ecological institutes of the state, which regulating role in such transformations is basic».

The basic priorities at formation of institutional bases of a sustainable development should become:

1. Functioning of economy within the frames of ecological restrictions, resource-saving and the closed production cycle;
2. Manufacture transition to strategy of qualitative growth on an innovative basis taking into account socially-ecological technologies;
3. Optimisation of consumption and distribution taking into account criterion of social justice;
4. Stimulation of general ecological formation and information education of the population;
5. Stimulation of changes in structure of requirements of the population and consumption standards.

Institutional bases of sustainable social and economic development creation occurs in parallel on a formal and informal basis (Fig. 4).

The formal institutional base of transition to sustainable economic development in Russia is formed by a number of acts:

- ♦ The Decree of the President of the Russian Federation «About the state strategy of the Russian Federation on preservation of the environment and sustainable development maintenance» from 2/4/1994 №236;
- ♦ The Decree of the President of the Russian Federation «About the concept of transition of the Russian Federation to a sustainable development» from April, 1st, 1996 №440;
- ♦ The Ecological doctrine of the Russian Federation, is approved by the order of the Government of the Russian Federation from August, 31st, 2002 № the 1225-p.

Some elements of a sustainable development policy are designated in the «Basic directions of the Government of the Russian Federation activity for the period till 2012» (are confirmed by the order of the Government of the Russian Federation from November, 17th, 2008 № 1663-p), such as:

- ♦ occurring everywhere distributions of the innovations, the accelerated development of a science, technologies and highly technological manufactures;
- ♦ developing of an information society;
- ♦ increases of branches of economy efficiency, decrease in power consumption of economy and labour productivity increase;
- ♦ strengthening of an ecological policy of the state.

However the concept "sustainable development" in Directions is not mentioned.

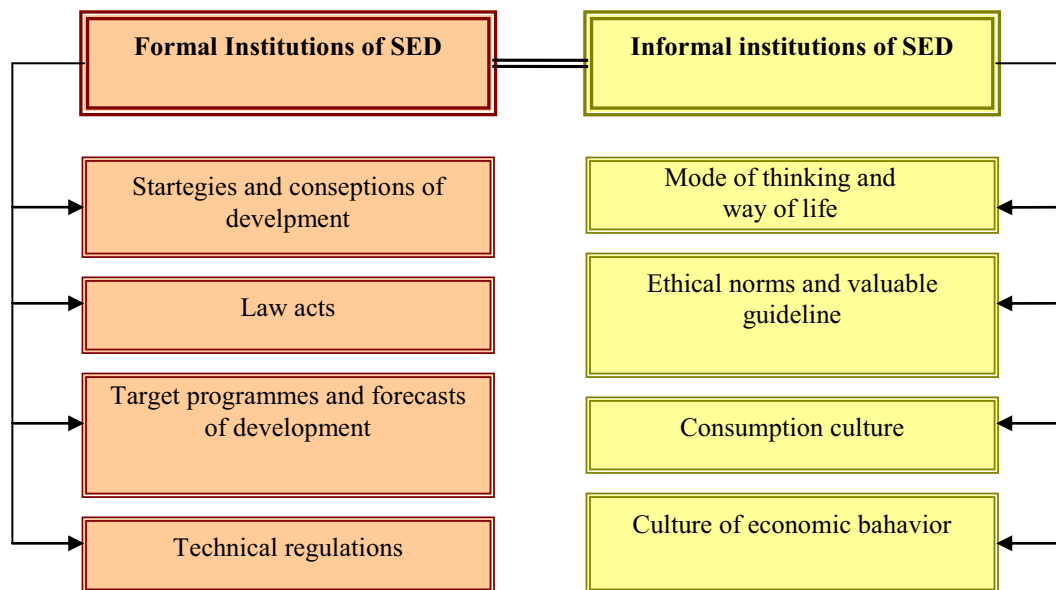


Fig.4 System of SED Institutions

ECOSYSTEM SERVICES AND WELL-BEING

Investigating institutional a sustainable development basis it is necessary to give special attention to interdependence of development of ecosystems, with given by them ecoservices with well-being of the population. (Fig.5)

The set of factors of formation of well-being is directly or indirectly provided by the ecosystems services. The volume of given ecosystems services is not boundless and also possibilities of their reception can be complicated. Though there is some potential of replacement of services by other forms of the capital, there are thresholds outside of which such replacement is impossible. Deficiency of ecosystems resources and possibility of its market cost increase serve as powerful stimulus for separate people or groups to try to get exclusive access and rights of priority usage of many ecosystems and their services.

They affect the political, economic and social institutes which regulate access to ecosystems services, their management and use.

Institutes — formal and informal — mediate communication between ecosystem services both making and defining factors of people well-being formation. In most cases unfair distribution or access to ecosystems and their services occur when formal or informal institutes collapse. It occurs when institutes do not exist, or when they are inefficient. There are many reasons for institutional failures.

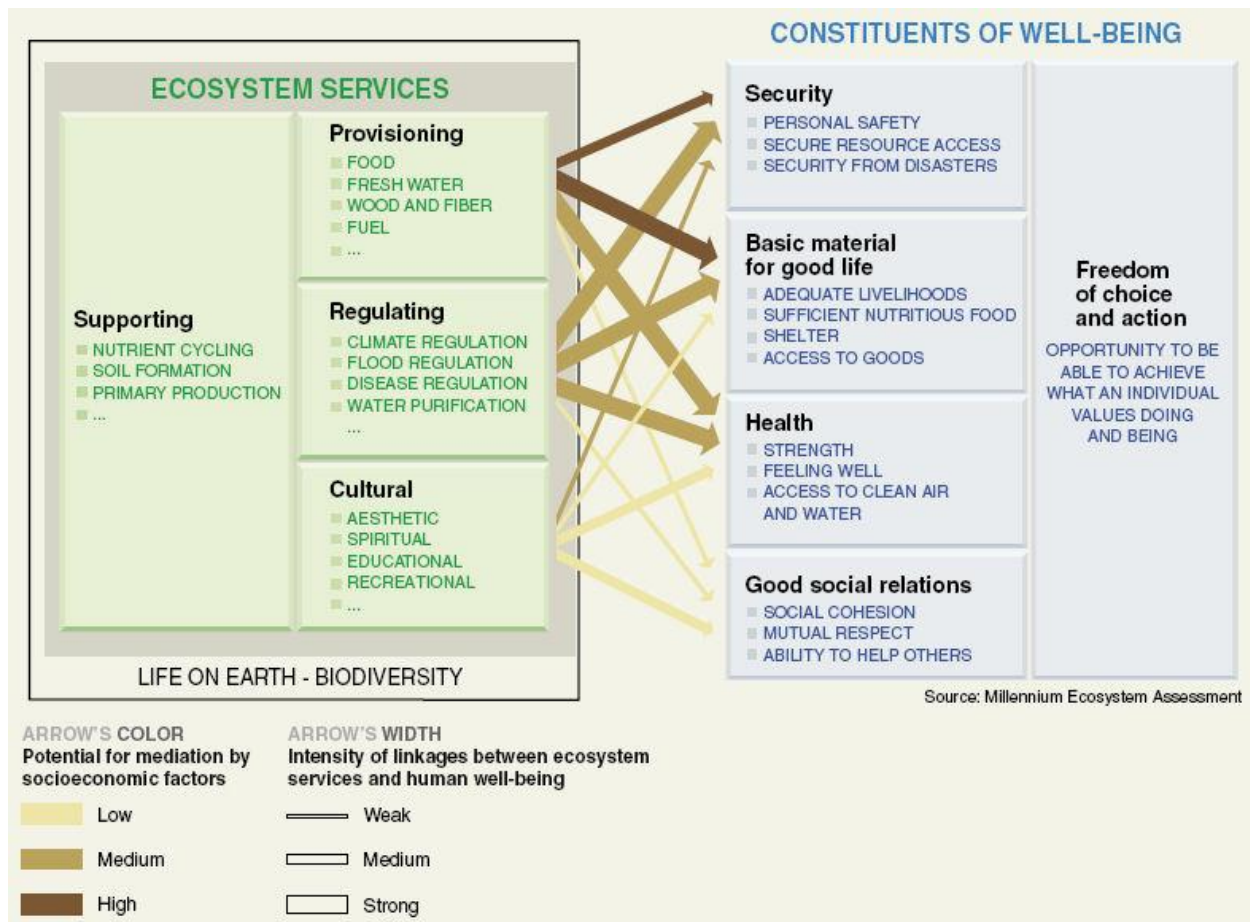


Fig. 5. Interrelation of ecosystem services and well-being of the population

Creation, revision and updating of institutes is a social process. Certain preconditions or "freedom" are necessary for a guarantee of that this process is fair and honest. These freedom, promoting fair and honest social process, play a critical role in prevention or lessening institutional failures. It is possible to mark out such five freedom: freedom to participate, presence of economic means, social possibilities, guarantees of an openness and safety. To them it is necessary to add the sixth kind of freedom — ecological safety. We define it as a minimum level of ecological reserves (ecologically safe rest) which is required for producing of supporting services that it was possible to guarantee steady receipt providing, regulating and cultural ecosystem services (Fig. 5). Thus ecosystems and their services are not only tools for well-being improvement, but also and represent well-being components. For example, water which on microbiological indicators can be proper for use with the goal of good healthmaintenance, can be appreciated also such qualities, as cleanliness and ease of access to it.

These six freedom provide space which allows individuals to define their rights — legal, political, social and ecological — and to create institutes for protection and supervision of fair distribution of these rights between all members of a society. The ecological and economic education, and as result change of consciousness, thinking and a way of a life and economic activities of the person should become a basis of formation of informal institutes of a sustainable development. Education, as a system of formation of knowledge and abilities of the future generations should become the key factor promoting a sustainable development of a society, to growth of its possibilities.

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CAN SMALL ISLAND AGRICULTURE SURVIVE? A CASE STUDY OF PUERTO RICO

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ABSTRACT

Since its settlement by Europeans in the late Fifteenth Century, the island of Puerto Rico has been plagued by economic difficulties, and at time crises. A persistent crisis has revolved around the agricultural sector, which has traditionally been the leading sector of the economy both in terms of production and employment. However, over the centuries, and particularly within the last century, agriculture has eroded in both areas, and today is a minor player in the economic life of the island. This paper explores the reasons for its demise and hopes for its future revival.

HISTORICAL SURVEY

The small island of Puerto Rico has been plagued by economic woes virtually since the arrival of the first Europeans on its shores in the late Fifteenth Century. Initially, under the economic theory named Mercantilism, those who arrived sought speedy, if not virtually instantaneous wealth. Early settlers were rewarded with panned gold gleaned from the short, fast-flowing rivers, but those who followed, say after the first three decades, found that source of wealth depleted and were left to fend for themselves in other areas of the economy. Many turned to agriculture, and for many, the type of farming revolved around export crop *latifundia* (plantation) farming, featuring what became the rather traditional products of many Caribbean economies, sugar and its products such as tobacco, coffee, cattle, limited amounts of sugar, and the like. Unfortunately, for the Puerto Ricans, they were surrounded by larger islands which produced similar products destined for virtually the same markets controlled by the Spanish masters. The truth was, that under the concept of economies of scale, these island could produce greater amounts of as good or better products, normally, as a result, at lower prices. The agricultural economy of the island faltered, and though it has often been described as a "boom/bust" type of economy, though it may have initially felt "booms" they usually, fairly rapidly, went "bust." The island survived, though in many cases rather poorly. Often a significant portion of the agricultural contribution to the economy was in the form of food and other products sold to those conducting shipping ventures, not unusually, pirates.

Whatever else may have been said of the Puerto Rican economy, for the most part, the Sixteenth through the Nineteenth Centuries were not successful in terms of agriculture, particularly as compared with neighbors such as Cuba and Santo Domingo, to say nothing of many of the mainland colonies of Spain. Puerto Rico, of course, was in direct competition with these other lands, for under the mercantilist trade patterns of the day, there was no legal opportunity for trade with the colonies of other European powers or with those powers themselves, except under special circumstances, trade was organized and regulated by the *casas* back in Spain, such as those of Seville.

Puerto Rican historian Lidio Cruz Monclova divided the island's history since the European settlement as being divided into two distinct periods, the Sixteenth through the Eighteenth, and then the Nineteenth forward (Cruz Monclova). In a very real sense that is quite correct, even with the Puerto Rican economy, though it must be said, much less so with agriculture. It must be admitted that over the years of the Nineteenth Century efforts were made to revamp the island's economy and to enhance the welfare of its population, particularly as the Liberals extended their political power on the Iberian peninsula, and their sharing of political power and advantage was reflected in the various colonies, including Puerto Rico. However, in general, it must be stated that relatively little was done to improve its agricultural outlook, and that by the time of the arrival of the Americans during the Spanish-American War, despite some gains in export, as for example with cigar tobacco

and coffee as well as sugar, the island remained quite poor, and the agricultural sector was without question one of the poorest of all.

AGRICULTURE UNDER AMERICAN COLONIZATION

Under early American rule, the fortunes of the island varied, as Puerto Rico went through period of benign neglect, period of particularly, poor governance by the American appointed administrations, or, at times, periods of actual care to the island's economy and general welfare. A prime example of this latter are the untiring efforts of Governor Theodore Roosevelt, Jr., famous for his explorations of the island and exposure of the wretched conditions which he often found and recorded. Various, and often significant efforts were initiated in order to enhance the political and economic conditions of the island residents. In agriculture, without question the most important was the passage of the so-called "500-acre" law (Foraker Act, 1900), which "protected against exploitation of land usage – though this spent years in the court" (Le Veness, 1978) before finally being successfully enforced on a widespread basis. Blanca Silvestrini noted that this same legislation "provided the legal framework for economic dependency through the incorporation of the Puerto Rican economy into the American scheme" (Silvestrini, 148).

It was not really until the early Twentieth Century that sugar became the major, or even that important a crop on the island of Puerto Rico. It was subsequent to the American arrival that Puerto Rican sugar was no longer subject to United States tariff regulations, and therefore, that American sugar corporations purchased vast tracts of island acreage for its production (much of which had previously been utilized for other crops). Once again, however, the agricultural economy, now almost completely dependent upon this one product, became "boom" and, after a massive decline of prices in 1925, "bust (see Rogozinski)." "In 1929, Puerto Ricans had on average an income of \$122 per year, about one-fifth of the level on the mainland. By 1933, during the Great Depression, the average yearly income fell to \$84" (Rogozinski, 286). Add to the economic woes of the period the factor of severe agricultural damage due to persistent hurricanes, such as San Felipe of the mid-1930s, or even island droughts which have been more recently been shown to have some negative impact on the plant life of the island (Beard, et al.)

Silvestrini has noted that early American legislation such as Foraker negatively impacted all three major exports, coffee, sugar and tobacco, noting that in "the sugar industry, the process of mechanization and concentration of land in fewer hands, which had begun in the late nineteenth century, accelerated.... By 1928 U.S.-owned plantations held over three quarters of the sugar lands and well over half of its production. Although noting that tobacco production actually increased in the first thirty years of American occupation, she also pointed out that "although most cultivation remained in Puerto Rican hands, the processing and export phases of the industry became the domain of American investments" (Silvestrini, 149).

Speaking of the following decade, Gordon Lewis noted that the "land use pattern centering around the sugar monoculture prevailed, with all of its hazardous consequences – concentration on a lucrative cash crop, the use of the best lands thus for export purposes, the failure to produce subsistence crops for local consumption,[and]..... the continual extension of cultivation to increasingly marginal soils" (Lewis, 114). The sugar industry itself had been badly damaged by competition from cane produced on the U.S. mainland and other territories, such as Hawaii and The Philippines, and lower production costs elsewhere in the Caribbean region such as Cuba (Lewis, 114). In addition, Silvestrini notes that the island also suffered from *minifundism* or the use of small plots by some 75% of those engaged in farming which together accounted for only some 15% of the arable land. Their vegetable and fruit production was not of sufficient economy of scale to enable them to compete successfully with imports from the U.S. mainland (Silvestrini, 156).

Lewis reported several additional factors which damaged the insular agricultural output. Its famous cigar production was damaged by smokers' switching to cigarettes after World War I, and the pre-war European coffee trade was never really reestablished to anywhere near its prewar levels. Finally, he noted that "apart from the corporate sugar *latifundia*, the insular agriculture was characterized by an almost feudal pattern of technical equipment and skills, since the family-oriented farm structure inhibited the growth of a rationalistic-competitive spirit" (Lewis, 114). Finally, he noted that other exports such as tropical fruits, and perhaps especially grapefruit, were very severely damaged by competition from the mainland and the lack of tariff and/or quota protection. Poverty in the rural areas was widespread and living conditions often quite wretched.

In a 1978 paper delivered before the Society of Caribbean Studies in England, I made the following general comments about difficulties in the agricultural sector: "The island possesses decided physical limitations including small size and high population density, rainfall variations which cause a rainforest in the Northeast and

a semi-desert region in the Southwest, hurricanes.....land configurations.....leaving only approximately one-half the land.....suitable for agricultural purposes, short but swift rivers which are prone to flooding, destructive insects, considerable soil variations.....severe loss of labor.....loss of relatively scarce agricultural land.....lack of credit facilities, low wages and difficult work.....mechanization which has eliminated some jobs.....lack of agricultural diversification, poor marketing facilities and procedures, inferior crop quality.....severe competition.....and the like (Le Veness, 1978, 2).

COMMONWEALTH ACHIEVED: HAS IT MADE A DIFFERENCE?

Hopes arose, however, as in the period after the Second World War, Puerto Ricans gained increasing self-government, at least with regard to local insular affairs. In 1947, Jesus T. Pinero, the first Puerto Rican to be named governor in nearly three hundred fifty years of occupation was installed in La Fortaleza. The following year the Elective Governor Act permitted the election of don Luis Munoz Marin of the *Partido Popular Democratico* (PPD) whose administration brought with it a determination to fight for increased political autonomy and economic improvement. The former was achieved through the creation in 1952 of a new relationship with the United States known commonly as Commonwealth, or more accurately, in Spanish, *Estado libre asociado*. In economic terms, the transformation was known as Operation Bootstrap, an effort at self-realization, with an economy heavily externally funded, but increasingly locally owned and operated. At least that was the early theory and the hope.....

Whatever may or may not have been the expectation or the subsequent reality with regard to industry and finance on the island, hopes concerning the transformation of agriculture have been rather dashed. The initial Land Law of 1941, especially in its Title V, did provide for free smaller holdings, really “subsistence farming,” in the belief that this would “‘democratize’ land tenure through land distributions, eliminate social relations of servitude, and settle Puerto Rico’s highly mobile landless workers” (Garcia-Colon, 44). However, “the government did not provide the financial resources necessary for commercial exploitation of the land. There was no protection against the strong competition with American products.” As a result, “small farmers seldom had the technical knowledge or the financial resources needed for intensive farming” (Silvestrini, 156). That view is seconded by Ismael Garcia-Colon who notes that the “Individual Farms program attempted to transform landless workers into small farmers by distributing land for agricultural purposes, but the lack of funds and land made it very limited” (62, note 4). Lewis added that “by 1954 the state policy of redistributing sugar lands as *parcelos* to the landless had not worked out. The life style of the rural squatter remained much the same as before: the promise of the “proportional profit” farms as the harbinger of a genuine rural cooperative organization had failed to materialize.....” (125). Nevertheless, given government attention to the numerous social problems encountered in rural life, conditions dramatically improved with electrification, improvements in water supplies, housing, education, roads, communications, and the like. Of course, over the years more people owned these smaller rural landholdings. Rural population also declined as thousands moved to more urban centers to partake in the improved employment opportunities offered by the industrial and other economic sectors located in urban settings. Relative poverty in rural areas has persisted, and Silvestrini, in a rather dire comment, has noted that “early in the development of the.....economic policies, agriculture was abandoned as a practical alternative to industrial development.[A]griculture began to be supplanted by manufacturing in the 1940s. By the 1970s commercial agriculture had virtually collapsed. In addition to the direct economic impact of the decline of agriculture on employment and income, the lack of production for local consumption has resulted in the importation of large amounts of food” (164). Even sugar, a supposed mainstay of the agricultural economy has gone into a steep and steady decline. Rogozinski noted that “from a peak of 1.3 million tons in 1952” it had fallen “to 249,000 in 1973 and only 34,000 in 1966,” adding that coffee has also seen a marked decline “and almost no tobacco is grown” (288). Weather continues to pose extreme difficulties to agricultural production, as for example as coffee was further devastated during Hurricane Hugo in 1989, which destroyed about one-fourth of year’s crop, along with 80% of the plantains, and very significant portions of the ornamental plant, poultry as well as fruit and vegetable production (Luxner, 1989). In addition, the general low prices, and, ironically, in an island with extremely high unemployment, by a shortage of labor during that same general time frame. However, there was at the start of the new decade renewed hope as Japan’s Ueshima Coffee agreed to the purchase of some 40,000 pounds of premium beans (Luxner, 1990). By 2001, coffee production stood at 8, 650 tons, estimated at nearly \$35 million, whereas “normally” production could be 14-15 thousand tons. Actually, some 5,000 tons were *imported* that year just to cover local consumption (Crop.....).

All this has been further complicated by a continuing pattern of change with regard to land usage on the island. As a geological structure formed by volcanoes, none still active, Puerto Rico's land mass is dominated by a *cordillera central*, or central mountain range, with sloping sides and rolling hills culminating in a low coastal plain on most sides of the island, mostly created by the years of wind and rain which have worn away the peaks. As a result there is significant arable land along the island's coastal plains and hills. However, this land is also close to rivers, highways, and urban settlements. As a result it tended to be heavily cultivated, but over the years of the Twentieth Century, much farming land was abandoned or badly underutilized, offering an opportunity for urban and suburban expansion with regard to single-family housing, suburban shopping malls and industrial parks. The use of the land for these purposes has further reduced future agricultural possibilities. For example, it has been demonstrated that between 1974 and 1994, the amount of potential agricultural land converted to urban purposes was more than twice that of non-arable land, mostly in these low coastal valleys and the rather unique Caguas valley. Noting similar problems in the high population countries of Japan, Korea, and Taiwan, this study indicated that between those same years "42% of the new urban areas.....occurred at the expense of potential agricultural lands.....The rental or sale of these lands is resulting in a transition of nonurban uses to irreversible urban uses.....(Lopez, Aide, Thomlinson, 53-54).

A second change in land use, perhaps for the better with regard to agriculture, is the conversion of abandoned hillsides, formerly utilized for coffee production, back to forest. A number of studies have been written concerning the efficacy of various types of trees and the short term and long-term effects of such new growth, which go far beyond the analysis of this present study. However, the replanting of abandoned areas, while limiting the possibility of the return of tobacco has had positive effects on soil, including the curtailment of erosion, as well as the flora and fauna of the areas involved (Lugo, 271-73).

Proposed solutions to all these problems have been varied over the years. In 1978, I reported, in a fairly upbeat paper on efforts which were being undertaken to significantly improve rural life and production on the island. These included hurricane insurance, price supports, creation of a government run sugar corporation, the *Corporacion de Credito Agricola* (1960) to extend credit in rural areas, subsidies and other payments to farmers to defray such items as some labor costs, the *Corporation para el Desarrollo Agricola* (1973) which would assist farms by purchasing products, plus increases in electrification, irrigation (especially in the South and Southwest), marketing schemes, and in 1977, the *Administracion de Fomento y Desarrollo Agricola* which "integrates the work of four previous government corporations and agencies, including the Agricultural Development Corporation, taking responsibility for such tasks as agricultural development, agricultural services, farm insurance, and salary subsidies" (Le Veness, 1978, 13).

Around that same period discussions were in progress between the Commonwealth government and the U.S. Department of Agriculture. They led to a December 1979, which clearly outlined the decline of insular agriculture, noting, for example, that from 1950 to 1976 that sector had dropped from the most important major sector, employing around 216,000 (36% of employed) and contributing \$149 million to the smallest of the major sectors, employing a mere 6% and earning only 5% of insular income. At the same time, although food production had risen, it was still nowhere near the levels needed to feed the island, with eggs around 50%, dairy at 90%, starches at 65%, vegetables at less than 40%. Coffee was seen to be in a state of collapse (U.S., Commerce.....293-94). At that point, three strategies were proposed, (1) continue existing practices, (2) create a market driven economy, or (3) construct a government directed plan. Under the first, significant decreases in land usage would result with coffee and tobacco suffering the most, and increases in livestock and dairy. In the second, about half the land would be withdrawn from use, sugar would suffer significantly, and there could be significant declines in livestock and dairy. Pineapple growth could be significantly enhanced. Under the third scenario, there would be a significant increase in acreage, about 1/3 increase, sugar would be reduced to profitable levels, sun-grown coffee would replace shade coffee and would increase dramatically as would production (and marketing abroad) of tropical fruits, vegetables, starches, and livestock (as a result of forage production). Beef might well be up 50%, pork up 30% (U.S., Commerce, 304). The last two options would be particularly expensive, but would appear to achieve the best long-run results when compared with a continuation of present policy. Unfortunately, looking back from a Twenty First Century perspective, little seems to have been accomplished with regard to any of the three options.

Unfortunately, despite that optimistic list of possibilities, little appears to have transpired to enhance the island's agricultural situation. Indeed, quite the opposite appears to be the case. One source listed employment in agriculture on the island in 2004 as 2.1%, down from 39.1% in 1954 (Collins, et al., 34). Three years later, agriculture, forestry, fishing and hunting combined account for approximately 1.5% of total employment on the island and it is admitted that agriculture "plays a small role in the commonwealth's economy" ("Trends and Developments.....,2, 3). Surveys from 2002 through 2007 indicate the number of farms dropped by nearly

2,000, the largest number being so-called “family farms,” tenant farmers rose by approximately 800, and the size of farms dropped in each category (listed according to total cuerdas) (U.S., Agriculture, “Summary”). It is interesting to note that the three highest income earners in agriculture on the island have switched from sugar, coffee, and bananas, to (in 2007) milk, plantains, and eggs (FAO). The very latest statistics do little to encourage. Undoubtedly suffering from the ongoing recession on the U.S. mainland and elsewhere, production in some of the more hopeful agricultural statistics declined in 2009. For example, milk production decreased 2.9%, egg production decreased 8.2%, layer production was down 4%, red meat production decreased 13% (U.S. Agriculture).

CONCLUDING REMARKS

In short, the future of the island’s agricultural production appears rather bleak. Production is clearly turning from the traditional “monoculture” products such as sugar, tobacco, and coffee to milk, vegetables, fruits, meats, and ornamental plants, much of which is for local consumption. With the possible exception of coffee and ornamental plants, there seems relatively little to be exportable at the present time, with no apparent plans for improvement. It is almost as though the island has given up on agriculture and under the concept of “relative advantage” is continuing to turn to other sources of income. The only problem is, that has become readily apparent, other sources of income are also becoming increasingly untenable due, among other reasons, so a change in U.S. taxation as applied to the island, and the general effects of the recession, which have been felt quite severely on the island.

One important indicator in the field of agriculture has been the introduction of organic farming. Clearly organic meats, vegetables, dairy, fruit, and the like has a growing market, one which can absorb at least limited rise in prices. There has been a noticeable increase in organic farming on the island, with most farmers selling directly to consumers via roadside stands. Verification is handled by the U.S. Department of Agriculture, for as a U.S. territory, Puerto Rico must comply with the regulation that all farms or other businesses dealing in “organic” foods must carry the “USDA Organic” seal awarded to them by USDA authorized agencies (Ruiz).

Radical reforms are being proposed for many of those other areas of the economy, some of which I have covered in previous GBATA papers. Some of these include difficulties directly caused by the island’s relationship with the United States. As a territory, although named a Commonwealth with limited special privileges, the island must follow all United States policies and regulations applying to foreign and interstate policies. These include tariffs and quotas, taxation, including the payment of Federal taxes, currency issues, and most certainly international trade and its regulation. The island is part of the United States and comes under its jurisdiction for such items as membership in international organizations, relations with the World Trade Organization, and the like. Thus, the island is prohibited full membership in a trade organization such as The Caribbean Common Market and Community (CARICOM), and is a part of the United States for purposes of the North American Free Trade Association (NAFTA). As I reported earlier (Le Veness and Fernandez), Dietz has claimed that the island’s relationship with the United States is “another fetter to Puerto Rico’s development” because of the colonial-type political relation to the US that has existed since 1898 with only a modification in who administers the local political apparatus. The nature of Puerto Rico’s status *vis-à-vis* the US has consumed untold financial and human assets.....that have diverted the allocation of scarce resources from higher-value issues” (262-63). It has been suggested that a entire rethinking of the Puerto Rican economy is needed, addressing the persistent high unemployment and underemployment, and particularly the high public expenditure, often concerning the extremely sensitive job creation (if need be in the public sector) issue, so important for employment, but so devastating to the insular budget. Without question it is time to look toward serious, perhaps radical, applications appropriate to agriculture vital sector seemingly virtually overlooked.

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WORD-OF-MOUTH MARKETING TO MIDDLE CLASS BLACK WOMEN IN SOUTH AFRICA: AN EMERGING PERSPECTIVE

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ABSTRACT

The buoyant black middle class in South Africa is still underplayed and sometimes ignored by marketers. Their specific frame of reference and the context of their background call for a marketing approach based on true insight into their attitudes, values and belief systems. Middle class black women are gaining economic and influential ground by the day. Word-of-mouth is an integral part of their life and networking culture, especially standing with one foot in a Western world and another in their traditional African roots and culture. Trusted advice from relevant sources is now more needed than ever.

INTRODUCTION

South African brands today are only skimming the surface on the potential of recognising consumer communities. Advertising is pushed down on individuals. The inverse of this action is embracement of the consumer mindset in a particular psychographic profile or community and to truly bond i.e. having an “authentic understanding” (Gremler, Gwinner & Brown, 2001: 50), with those consumers. This will enable the brand to form a long-term relationship where customer commitment exists, opposed to loyalty only; something that could be bought (Hofmeyr & Rice, 2000: 107).

A Harvard Business Review study has shown that 91 percent of people believe in word-of-mouth, i.e. trusting advice from a friend, whereas only 14 percent of people believe in advertising (Instant Grass, 2009: 10). In a 2007 study titled “Effectively Measuring the Impact of Consumer Comment”, done by Millward Brown, it was found that South Africa is the world’s leader in spreading positive stories about brands. The study also found that 86 percent of South Africans are “extremely likely” to recommend a brand to another person (Seopa, 2009); this is high above the world average of 69 percent of people “extremely likely” to recommend something (Instant Grass, 2009: 9). South Africa was ranked under the top four countries in the world where its citizens indicated that they have trust or place their trust in advertising, according to the Nielsen Online Global Consumer Study (2007). The results were as follows: Philippines (67%), Brazil (67%), Mexico (66%) and South Africa (64%). It could be due to the fact that they are all emerging economies or merely have trustworthy advertising, as the countries least trusting advertising were Denmark (28%), Italy (32%), Lithuania (34%) and Germany (35%), i.e. first world countries.

RESEARCH PROBLEM AND QUESTION

Due to a lack of knowledge about the emerging market, local marketers of brands and products are not currently exploiting this market and neither are they aware of the power of word-of-mouth as a marketing tool amongst the South African female consumers in this segment.

The following research question was formulated: How do marketers activate a successful word-of-mouth campaign amongst South African middle class black women in an authentic and creditworthy way?

RESEARCH OBJECTIVES

The following research objectives were formulated:

- (i) To develop a better understanding of the black South African emerging market in general and of the black women in this market in particular.
- (ii) To understand the strength of brand loyalty and cultural interpretations of brands amongst blacks in South Africa.
- (iii) To understand middle class black women in South Africa and the relevance of word-of-mouth in their everyday life.
- (iv) To explore ways of how to market to middle class black women in South Africa.

RESEARCH DESIGN AND METHODOLOGY

This study was exploratory in nature and a qualitative methodology was employed whereby primary data was gathered through personal one-on-one interviews with five specialists in the field of marketing pertaining to word-of-mouth marketing or black middle class women or both (see References for detail on respondents). Opinions and insights obtained from the interviews were integrated and consolidated with secondary data from a literature review in order to investigate the research problem, to answer the research question and to meet the research objectives.

Literature review

The literature provided information on global principles and findings on word-of-mouth marketing and insight on ways to successfully market to women. This was combined with South African research done on black South African women and advocacy in a local context that included the following two studies:

- (i) Black Diamond Surveys™ (2005 – 2008) on the emerging/ emergent middle class black consumer in South Africa. The studies were done by the University of Cape Town (UCT) Unilever Institute of Strategic Marketing in conjunction with TNS Research Surveys™ and B-two Strategic Marketing.
- (ii) The Wildfire Index (2006) on identifying and engaging with Influencers in social networks geared towards successful word-of-mouth initiatives, mainly based on personality, conducted by the UCT Unilever Institute of Strategic Marketing in conjunction with TNS Research Surveys™.

RESEARCH AND LITERATURE REVIEW FINDINGS

The South African black middle- to upper class, referred to as Black Diamonds™ in the marketing community in South Africa, is growing at a phenomenal rate as their spending power has increased from R180 billion in 2007 to R250 billion in 2008, thus matching white spending and accounting for nearly 40 percent of all consumer spending power (Black Diamond™ Survey, 2008: 22). Black Diamond™ women represent over 40 percent of all female consumer spending power, which is an estimated R120 billion (Unileverinstitute, 2008).

Despite all the research conducted and insights from South African research giants, especially on the black middle class consumer, the fact that South African companies have not yet fully explored this lucrative section of the market cannot be dismissed. Botha (2009) states that only lip service is being paid to the Black Diamonds™, using the motoring industry as example: according to Adex, the car industry spent more money on cinema than on SABC1, which is by far the main mass channel where Black Diamonds™ can be reached. He further discovered that SABC1 only received two percent of all branded car advertising in 2008 and when looking at the All Media and Product Survey, the black market contributes 30 percent of the new vehicle-purchasing group.

From a traditional advertising perspective as well as a word-of-mouth marketing initiative perspective, Black Diamonds™ are receiving below-par attention. To add to this, recognition that Black Diamonds™ are becoming global citizens is underplayed.

Understanding the black South African emerging market

Simpson (2009) denotes that the African culture is inherently one of word-of-mouth. This comes from a background where the history has never been recorded, where stories and folklore were passed on through generations via the spoken word. Egan (2009) feels strongly that marketers should realise the background of black women in South Africa prior to the 1994 inauguration of Nelson Mandela, which announced the dawn of a free and democratic South Africa. This background includes the following: being black, being a woman and being seen a “minor” (especially in the household) in a male-dominated black tradition where being a woman did not count for much. Black women nowadays have all sorts of freedom brought about by, for example, access to education and Broad Based Black Economic Empowerment in Business that includes boosting the representation of women in the work place. Even in the household, middle class black women now start playing a more dominant role as decision-maker and bring their children up with high expectations, embracing high levels of independence. Eighty-four percent of Black Diamond™ children speak English fluently (Buhr, 2009).

For a brand to self-actualise in South Africa, the brand needs to address its target audience at a certain needs level. As the black middle class is evolving, personal and economic needs are imperative, but it is of utmost importance for companies to pitch their brand at the right level – especially brands trusted through tradition and years of heritage. Clever brand extensions will also resonate with the Black Diamond™ market. A good example is a popular South African washing powder called OMO. This brand has managed to retain its heritage throughout its brand extensions, evolving with the evolving needs of its loyal customers, not alienating its loyal users. OMO has taken the journey with its customer set as its customers undergo different life experiences by evolving to different life stages. OMO’s product offerings now include not only products for cold water use (mostly appropriate to lower income band users), but also products for washing machines, which are now common among the higher income band black woman. OMO managed to retain its heritage and loyalty with Black Diamonds™ and according to Unilever (as stated in 2007) is growing at 30 percent year on year in the black middle class sector (Swart, 2007: 28-30).

Understanding the strength of brand loyalty and cultural interpretations of brands amongst blacks in South Africa

To understand the concept of brand loyalty amongst the emerged black middle class person, one ought to understand that, according to Simpson (2009), most Black Diamonds™ came from either a single-parent family, or circumstances where both parents were working, which meant that the children did most of the housework. By doing that, these children were introduced to a brand at a very young age. These children would most likely also be the ones who would do the replenishment buying, thus experimentation with different brands when growing up and evolving along the economic spectrum will pose a dual challenge, i.e. that of emotional attachment and whether the brand practically can still serve current needs.

Simpson (2009) states that brand loyalty is generally much higher among poorer black people in the country as lack of money compels them to buy products they can trust. Retailer branded products or generic products usually come at a more affordable price, but would not be found in spaza shops in South African townships as well-known and trusted brands are still in demand due to huge brand consciousness and brand loyalty. Simpson (2009) does say however, that in the case of no-name-brand shopping, the retailer would then become the brand and its customers will make the decision based on trust in the retailer or not.

Understanding the middle class black woman in South Africa and the relevance of word-of-mouth in her everyday life

Black Diamond™ women are unique and different, both from each other and also from other South African women – the speed of change results in highly fragmented and polarised attitudes (Black Diamond™ Survey, 2008: 64). The Black Diamond™ mindset continuum ranges between those embracing the status quo, or the way it “used to be” in the past or that what they grew up with, referred to *Status quo* Black Diamonds™, and

those who are focused on the future and embrace change, referred to as *Future focused* Black Diamonds™. The differentiation between the two plays a vital role in analysing the Black Diamond's™ beliefs, attitudes, and behaviours (Black Diamond™ Survey, 2008: 48). The *Status quos*, for example, would generally prefer to remain in the township where they feel safe as the *Future focused* would embrace change and rather move to a suburb. *Status quos* earn on average half of what the *Future focused* earn (Black Diamond™ Survey, 2008: 50). Thus, in concentrating a marketing effort for a product relatively new to the black market and to a market with a higher disposable income, the *Future focused* Black Diamond™ would pose to be more lucrative in this regard. *Future focused* Black Diamonds™ are also likely to be Igniters (Wildfire Project, 2006: 91). A word-of-mouth campaign using *Future focused* Igniters could have a higher chance of success than using *Status quo* Igniters.

“Culture is the inner script and lens through which Black Diamond™ women view the world,” (Black Diamond™ Survey, 2008: 74). Being proud of your culture is of great importance to Black Diamond™ women as 87 percent believe that most black people are proud of their culture and only 34 percent believe that, generally when one's got money, one would stop practicing one's culture. Of Black Diamond™ women, 66 percent believe that certain aspects of culture and tradition are outdated and need to be transformed and 89 percent believe in *lobola* (dowry), and 70 percent believe in slaughtering to thank the ancestors or ask for their help and guidance (Black Diamond™ Survey, 2008: 76). Although these findings may look quite contradictory, it needs to be understood that, even though the more emerged black women do not necessarily participate in traditional rituals, they still generally believe in the principles thereof or some aspects thereof and have a strong sense of pride in their culture, although exposed to a very Westernised business world. Marketers should thus be sensitive to their cultural belief system.

Baalbergen (2009) denotes that it is ultimately about “fitting in” for the emerged middle class black woman, and not about standing out from the crowd. She continues to say that emerging or emerged black woman wants to express herself in a unique manner, not copying white peers. Acceptance by other emerged or emerging black women is a strong motivator for word-of-mouth as the best source of information on trends, product choices and even to which clubs, events and shopping places they must go could be found amongst her peers. The place of conversation to be had by middle class black women depends on the context of what is being discussed, says Bovim (2009). She mentions that money issues will rather be discussed in taxis than with a family member who depends on her for financial support, as this may put strain on the relationship. Money problems are often the discussion point in taxis. Baalbergen (2009) mentions feedback from a Black Diamond™ respondent on a qualitative study conducted, saying “... We don't need therapy like you white people ... we have the taxis ... you can talk about all your stuff to a group of people that are like you, but don't know you.”

Marketing to middle class black women in South Africa

When communicating to Black Diamond™ women, the following guidelines should apply (Black Diamond™ Survey, 2008: 149-161):

- (i) Understand the impact that culture has on her life as it is the foundation and “inner script” for the Black Diamond™ woman.
- (ii) Speak to their dreams and recognise their ambitions.
- (iii) Relationships between men and women provide rich creative territory.
- (iv) Appreciate the power of family.
- (v) Retain the aspirational value of your brand – with status being a key driver in this market, 64 percent expressed that they will pay more for brands and would delay gratification for key luxury purchases.
- (vi) Enable Black Diamond™ women to make the most of their money with paying cognisance to the fact that the Quality-Value relationship is becoming increasingly important.
- (vii) Enable Black Diamond™ women to make the most of their energy.

Heritage, trust, communal confidence, social participation and localism should be recognised as major role players in even how brands use niche communication strategies to connect with consumers who lead increasingly diverse lives, for example Rama talking to the mother who blogs and MTN talking to the YouTube user (Crosswaite, 2007: 31-33).

When marketing to *Status quo* Black Diamond™ women, the following should be taken into consideration (Black Diamond™ Survey, 2008: 130):

- (i) Characters used in marketing communication must look approachable.
- (ii) Do not eschew from showing other family members and reference on how using the product promoted could also benefit other family members.
- (iii) Always refer to family as “loved ones”.

When marketing to *Future focused* Black Diamond™ women, the following guidelines apply (Black Diamond™ Survey, 2008: 130):

- (i) Attract with bold characters.
- (ii) Focus on “big picture” goals and promote product via referencing to how the product could assist in achieving “big picture” goals.

Women communicate to build bonds and forge relationships based on mutual interests and values. Brands should therefore avoid over automation and should rather focus on relationship-building opportunities, such as one-on-one experiences and story sharing facilitation, as suggested by Aardweg (2008).

MANAGERIAL IMPLICATIONS

The role word-of-mouth plays in an organisation depends on four factors (Rosen, 2006: 204):

- (i) The nature of the product; the more innovative and exciting, the better.
- (ii) The people the company are trying to reach; different audiences have different propensities for naturally talking about products – *some cultural and some based on age, i.e. younger people tend to socialise more and would be influenced by peers and older people rely less on advice from others.*
- (iii) The company’s customer connectivity; the higher the degree of connectivity amongst the company’s customers, the more the company will depend on word-of-mouth for future business.
- (iv) The company’s marketing strategy; not only the company’s marketing strategy but also that of the company’s competitors might affect the degree to which word-of-mouth is relied upon.

RECOMMENDATIONS FOR FUTURE RESEARCH

Given the background of this study, future research propositions on the subject are as follows:

- (i) A comprehensive qualitative study on Black Diamond™ women aged 25 – 45 years on the subject of word-of-mouth in both the online and offline world.
- (ii) Establishing the degree of proneness to experimentation with new products or brands of Future focused Black Diamonds™.
- (iii) Quantifying referral marketing on a product whose main target market is one or more of the Black Diamond™ women segments through building a statistical model to project income based on historical marketing efforts.
- (iv) A qualitative study looking for the keys that will stimulate engagement with the Black Diamond™ woman, i.e. what strategies companies and brands can put into place to provoke and sustain an engaging relationship which will ensure organic advocacy.

Terblanche-Smit (2009) is of the opinion that *lifestyle* should be analysed to a better extent, i.e. that qualitative research is imperative to gain true insight, where quantitative research would not necessarily be able to provide the same level of insight on middle class black women.

SUMMARY AND CONCLUSION

The post-modern consumer is sceptical of advertising messages. Friends’ advice is trusted more. The product or message must be relevant and appropriate to their lives. Influencers exist in every product category and marketers could utilise them authentically to infiltrate network hubs. Although the black middle class presents itself as an ever-growing goldmine, this buoyant part of the South African market is still underplayed and

sometimes ignored by marketers. The South African black middle class is indeed different from the white middle class due to their frame of reference and the context of their background and should be approached differently in a marketing sense when truly gaining insight to their attitudes, values and belief systems.

Black women in South Africa were discriminated against in the past based on being black, being a woman and being seen as a “minor” (especially in a typical male-dominated household integral to African culture). Despite protection by South African law in a fully democratic country, some of these aspects may still be true to some extent. Middle class black women are however gaining economic and influential ground by the day. Word-of-mouth is an integral part of their lives and network culture, especially standing with one foot in a Western world and another in their traditional African roots and culture. Trusted advice from relevant sources is therefore now needed more than ever. Understanding the dreams that inspire these women in each of the Black Diamond™ segments, being able to catch the fleeting moments that provide motivation in their lives and actively collaborating with this target market, are imperative for marketers to understand if they want their product or brand to be taken with on their journey to success. Coming out of an economic recession, conspicuous consumption by the black middle class consumer would come to the fore stronger as the quest towards self-actualisation is ongoing.

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ENTERTAINING OR NOT ENTERTAINING? PERCEPTION AND EVALUATION OF THE ENTERTAINMENT OFFERINGS IN MACAO – AN EMPLOYEE PERSPECTIVE

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ABSTRACT

This paper is two-fold. The first part looks at the importance of the entertainment elements in making a destination choice by the employees working in the tourism, hospitality and/or entertainment industries in Macao. As a sub-topic in this part, a comparison study was performed with two other stakeholder groups (tourists and residents). The second part of the paper looks at the awareness level and the adequacy of the entertainment offerings in Macao. The results revealed that employees placed a high level of importance to themed events when choosing a travel destination and very low importance to gambling related activities, much lower than tourists and residents in Macao. Moreover, while the respondents were mostly aware of the existence of the entertainment offerings, there were some entertainment elements that required more promotion to enhance awareness. In general, respondents considered that Macao provided ample gambling facilities and night entertainment but were lack of facilities that were suitable for the enjoyment of the whole family.

INTRODUCTION

“You Are Now Entering the Entertainment Zone” is the title of the first Chapter in Wolf’s (1999) book “The Entertainment Economy”. We are indeed entering the entertainment era. Las Vegas, Atlantic City, Macao, Gold Coast, among others, all have one thing in common, that is, they are moving towards being recognised as “Cities of Entertainment”. As Wolf (1999) also pointed out, “(E)entertainment content has seeped into every part of the consumer economy ...” (p.4). However, entertainment is not well-studied from the consumers’ and providers’ perspective. Despite the fact that there has been increasing recognition of the importance of customer-supplier relationships in many tourism studies, not many looked at their roles in the context of entertainment (Bryman, 2004b). Entertainment has also been seen as a regeneration or rejuvenation strategy for the sector (McCarthy, 2002; Fainstein & Robert, 1998; Minton, 1998). Because of the exclusion of this important aspect from the general forms of tourism, there is a need to fill this gap.

The subjects of investigation in this paper were the employees working in the hospitality, tourism and/or entertainment industries in Macao. They were selected as target respondents because they represent a significant group of stakeholder in the business. According to Freeman (1984), “(a) stakeholder in an organization is any group or individual who can affect or is affected by the achievement of the organization’s objectives” (p.46). Jamal and Getz (1995) employed a similar definition: “stakeholders are the actors with an interest in a common problem or issue and include all individuals, groups, or organizations” (p.188). Following Bryson and Crosby (1992), a stakeholder is defined as “any person, group, or organization that is affected by the causes or consequences of an issue” (p.65). Freeman (1984) sets forth that in the tourism context stakeholders include local businesses, employees, government, competitors, national business chains, tourists, activist groups and residents (p.55). Because of the high involvement of the key stakeholders in the tourism environment, many researchers advocated that representatives from these stakeholder groups should be involved at an early stage in the planning process so as to develop a shared vision for tourism (Gunn, 1988; Haywood, 1988; Inskeep, 1991; Jamal & Getz, 1997; Jamal & Getz, 1995; Murphy, 1983; Ritchie, 1993; Yuksel, et al., 1999).

While understandably it is much easier for researchers to access and assess the consumers' (tourists') evaluation rather than the service providers, it is desirable that researchers should attempt to penetrate a topic by embracing the opinions of different stakeholder groups. In the entertainment world at least three groups of stakeholders might be identified - those who make the decisions about the entertainment, those who provide the entertainment and those who experience the fruits of the other two parties' efforts. This study aimed at gathering information on the perception and evaluation of the existing entertainment activities / facilities by the employees working in the hospitality, tourism and entertainment industries in Macao. It was believed that employees (working closely within the industry) should possess different opinions from the other stakeholder groups.

Due to the increasing growth of entertainment business and the role it plays in the destination choice process, this paper attempts to understand the importance of entertainment offerings when a destination choice is made as well as to evaluate the awareness level and the existing adequacy of such provisions in one Asian Pacific tourist destination - Macao - which is also vigorously developing its entertainment industry alongside its gambling orientation. Macao relies very much on the tourism. The gaming industry employs around one-third of its working population (Macao Statistics and Census Service, 2008a) and 85.6% of the total government tax revenue in 2006 came from direct gaming taxes (Monetary Authority of Macao, 2008). Macao is the only city with legalised gambling in China. It has been labeled for a long time as the "Las Vegas of the East". The enclave's gambling revenue, amounting to 57.5 billion patacas (more than USD7 billion), exceeded that of Las Vegas in 2006 (Macao Gaming Inspection and Coordination Bureau, 2008). Gaming revenue contributes to more than 50% of Macao's Gross Domestic Product and 70% of government revenue (Macao Statistics and Census Service, 2008b).

This small piece of land received close to 27 million visitors in 2007 (a contrast to the local population base of 448,500) (Macao Statistics and Census Service, 2008c). The tourism industry, however, differs from many other economic activities in that it is subject to considerable instability of demand (Sinclair, 1999) and at the same time highly seasonal. Such high level of uncertainty means that tourism destinations without affluent reserves and savings are exposed to the risk generated from such instability in terms of income generated. The tourist profile of Macao is also very concentrated. Visitors mainly come from three markets – Mainland China, Hong Kong and Taiwan. These three markets accounted for over 92% of total visitor arrivals in 2006 (Macao Statistics and Census Service, 2008c). Hong Kong used to be Macao's largest generator of tourists before 2002. This situation, however, has slowly changed and Mainland China visitors have exceeded Hong Kong visitors since 2003. This is not surprising since it was in July when Macao started opening up for individual visa application by some places in Mainland China. More and more cities have received this privilege since then. At the same time the tourist arrivals from other destinations remained relatively stable. This implies that Macao's clientele base is too narrow and concentrated. It relies too heavily on the two nearby markets. The tourism industry can be regarded as a highly seasonal and demand-driven industry. It is also so vulnerable that it is often the first to be hard-hit in times of crisis. This is compounded by the fact that the tourist-generating countries coming to a destination are themselves very sensitive to (possible) bad news, thereby making the demand very unstable. This problem would be intensified if the market sources are very concentrated and from only a few places, such as in the case of Macao. Therefore Macao, although it has achieved quantity in terms of tourist arrivals, it is in fact very prone to negative impacts arising from any sudden changes in the demand and/or taste of the tourists from these two concentrated market sources. As a result, Macao is urgently in need of diversification alternatives and this paper focuses on the entertainment market.

SAMPLE

The sample of employees was collected through distribution of questionnaires to the service providers through personal network. Macao, being part of China, the personal network is very important in achieving a task and it is highly difficult, if not impossible, to get a job done if personal network is not used within a target organisation. After several rounds of questionnaire distribution, finally a total of 48 completed questionnaires were returned and included in the analysis. Table 1 below shows a summary of the demographics of the sample.

Table 1: Demographics of the sample

	Frequency	Percent	Cumulative Percent
Gender:			

Male	13	27.1	27.1
Female	35	72.9	100.0
Age:			
18-24	10		
25-29	21	20.8	20.8
30-34	10	43.8	64.6
35-39	2	20.8	85.4
40-44	4	4.2	89.6
45-49	1	8.3	97.9
Workplace Categories:		2.1	100.0
Hotel/Accommodation Units	31		
Show Business/Theatres	10		
Casino/Slot Centres	6	64.6	64.6
MICE	1	20.8	85.4
		12.5	97.9
Average Years of Experience in the Industry:		2.1	100.0
Total (N=) 48	4.4 years		

METHODOLOGY AND INSTRUMENTATION

This paper adopted a quantitative survey approach, which is widely perceived to be an effective means of generating mass responses and is one of the most frequently utilised designs in dissertations within the leisure and tourism fields (Smith, 1995; Finn, et al., 2000). Please note that this paper interprets only part of a larger dataset which includes more sample groups (tourists and residents) as well as more aspects on perception, tourist destination experience and destination comparison.

The questionnaire asked the employees to rate the importance of each of the entertainment items listed in Table 2 when choosing a travel destination to spend a holiday using a 7-point scale (with 1 being “Very Unimportant” and 7 being “Very Important”). In addition, they were also asked to evaluate the adequacy of the entertainment offerings in Macao, again using a 7-point scale (with 1 being “Very Inadequate” and 7 being “Very Adequate”).

Table 2: Entertainment elements

1. Live concerts and shows (in general)	10. Circus and acrobatics	19. Themed transportation
2. Popular concerts	11. Street entertainment	20. Golf
3. Classical concerts	12. Themed shopping	21. Horse racing
4. Magic	13. Themed dining	22. Greyhound racing
5. Opera and musical	14. Spectator sports	23. Lottery
6. Girl shows	15. Karaoke	24. Slot machines
7. Theatres	16. Bars and disco	25. Gaming tables
8. Theme park	17. Horse riding	26. Car racing
9. Thrill rides and roller coasters	18. Themed wedding	

RESULT DISCUSSION

Importance of Entertainment when Visiting a Destination for Holiday

It is important to understand why people travel and why they choose their destination because it allows tourism marketers to better understand what motivates people to travel and what destination-specific factors influence the selection of a specific destination. Several researchers use a two-dimensional or forces approach called “push and pull” concept. While push factors are generally regarded as influencing people’s travelling decisions, it is the pull factors that affect people’s destination choice behaviour (Gavcar & Gursoy, 2002). Lee et al. (2002) established that destination attribute-based pull factors exerted a stronger influence on destination choice, in comparison with those factors intrinsic to individual psychological motivations in their 1996 German Pleasure Travel Market Surveys. Pull factors emerge or are aroused as a result of attractions at the destination. They help explain destination selection decision (Lee, et al., 2002). In summary, what a destination has to offer could affect significantly the destination choice. Therefore, this section looks at the role played by entertainment elements (as part of a destination tourism offerings) when selecting a destination for holidays. Respondents were asked to evaluate the importance of each of the 26 entertainment elements. On a scale of 1 to 7 (with 1 being “Very Unimportant” and 7 being “Very Important”), the respondents expressed their preferences towards the different elements available when going on a leisure trip. A summary of the results is presented in Table 3 below.

Table 3: Importance ranking of the entertainment elements when visiting a destination

	N	Mean	Std. Deviation
Themed dining	48	5.25	1.376
Theme park	48	5.06	1.743
Themed shopping	48	5.00	1.414
Street entertainment	48	4.42	1.773
Themed transportation	47	4.28	1.638
Circus and Acrobatics	48	4.21	1.501
Theatre	47	4.19	1.689
Live concerts and shows (in general)	44	3.82	1.646
Opera and musical	48	3.75	1.874
Thrill rides and roller coasters	47	3.74	1.738
Popular concerts	48	3.73	1.581
Themed wedding	48	3.60	1.807
Bars and disco	47	3.51	1.780
Spectator Sports	48	3.48	1.571
Classical concerts	48	3.25	1.605
Car racing	48	3.21	1.967
Magic	48	3.08	1.381
Karaoke	48	2.98	1.578
Casino gambling - Slot machines	48	2.96	1.957
Casino gambling - Table games	48	2.92	1.911
Girl shows	48	2.88	1.645
Golf	47	2.74	1.510
Horse riding	48	2.63	1.696
Lottery	48	2.58	1.711
Greyhound racing	48	2.29	1.515
Horse racing	48	2.29	1.443

Scale ranged from 1 to 7, with 1 being “Very Unimportant” and 7 being “Very Important”.

If we take the 3.5 level as the distinguishing line, we can observe that exactly 50 percent of the entertainment elements were rated with an importance level of above 3.5. If we further break down these 13 elements into 3 zones according to their importance levels (3.50-3.99; 4.00-4.99; 5.00 or above), we can see that the top 3 most important elements claimed by the respondents were all themed events (namely “themed dining”, “theme park” and “themed shopping”). In fact all of the themed events were amongst the above-3.5 level. This means that the respondents allocated a relatively high importance level to the availability of themed events when

deciding where to go on holiday. As people are getting more experienced in travelling, constant exposure to forms of entertainment heightens their expectations of being entertained in many activities even when the main focus of these occasions is not entertainment (Bryman, 2004b). Therefore it is not surprising to see many operations across different industries trying to “dress up” their operations with different themes. Many destinations have included theme parks into their tourist product portfolio because a theme park alone can attract millions of tourist attendance (Swarbrooke & Horner, 1999). By applying a particular theme, these parks could proclaim themselves differently rather than clustering with the many other amusement parks in this highly competitive arena. The restaurant business is also drawing on an array of themes of music, sport, movies, history and geography. The Hard Rock Café, the Planet Hollywood, the Rainforest Café and the Harley-Davidson Café are just some examples. A theme is very important in the restaurant business. People go to a restaurant for many reasons. Some of them simply go there for the sake of filling stomachs; others are seeking a pleasure dining experience on top of this basic need fulfillment. The former focuses on the products (food) and the latter focuses on the experience (ambience, service, décor etc.). The incorporation of a theme helps enhance such experience and instill elements of entertainment into the event. In themed restaurants, experience is sometimes more important than the food itself which “*functions as a prop for what is known as an ‘eatertainment’ experience*” (Pine & Gilmore, 1999, p.3). The application of themes is very wide indeed. Parades, fairs and festivals are commonly organised as themed events (Sonder, 2004). Themes are also seen in hotels, shopping malls (terms such as “shoppertainment” and “entertailing” are recently used to refer to the integration of entertainment with retail), museums, casinos and any businesses that are deemed to be able to benefit from the incorporation of a theme. Undoubtedly theming is a critically important element of the entertainment industry.

Another interesting observation is the very low ranking of the 5 gaming elements (namely “lottery”, “casino gambling - slot machines”, “casino gambling – table games”, “greyhound racing” and “horse racing”). All of them were rated below the 3.5-level. In fact except the two casino gambling elements that occupied higher ranks, the other three were deemed the least important. These results align with the author’s another paper (using the same dataset) which interpreted opinions of tourists and residents in Macao (Loi, 2008). Comparatively speaking, the employees’ mean scores for the gaming elements were even much lower than that in the study for tourists and Macao residents. Employees, being closer to the reality of the industry, know better behind the glamour of the gaming sector. This might be one of the reasons attributable to the relatively low importance of gaming offerings in their destination choice consideration. For them, there are other recreational elements that can entice them to a destination. These low scores from the two related studies should be able to provide some implications to policy makers. Respondents in general (employees, tourists and residents) did not place as high an importance level to these gambling related activities as many people might have expected. People did not choose a destination simply because it had good gambling facilities and those who came just for gambling would not stay long and thus would not benefit other sectors. In the case of Macao the average length of stay of visitors was only 1.4 nights (data up to November 2009) (Macao Statistics and Census Service, 2010). If Macao would like to attract tourists who would stay longer and possibly spend more in other sectors, it has to diversify its tourist product portfolio.

As previously mentioned, this employee sample is part of a larger dataset which consisted of other samples groups - tourists (N=200) and residents (N=200). As an auxiliary part of this section, the author finds it helpful to make a brief comparison of opinion among these three stakeholder groups here. To achieve this purpose, these three sub-samples were analysed using ANOVA to detect the existence of significant differences among groups with the Tukey HSD test employed to see where the differences laid.

The One-way ANOVA results in Table 4 indicate that the three stakeholder groups held significantly (at the 95% confidence level) different opinions regarding the importance of entertainment in 17 (out of 26) entertainment elements. They held similar opinions mostly in themed activities and concerts and theatre performances (popular concerts, opera and musical, theatre, theme park, street entertainment, themed shopping, themed dining, themed wedding, and themed transportation).

Table 4: ANOVA – Importance of entertainment elements

	F	Sig.		F	Sig.
Live concerts and shows (in general)	3.399	*.034	Spectator sports	6.658	*.001
Popular concerts	2.371	.095	Karaoke	7.195	*.001
Classical concerts	8.273	*.000	Bars and disco	4.173	*.016
Magic	9.115	*.000	Horse riding	6.093	*.002
Opera and musical	1.579	.207	Themed wedding	.556	.574
Girl shows	12.122	*.000	Themed transportation	.401	.670
Theatre	2.914	.055	Golf	3.710	*.025
Theme park	.114	.893	Horse racing	9.554	*.000
Thrilled rides and roller coasters	10.436	*.000	Greyhound racing	7.845	*.000
Circus and acrobatics	3.163	*.043	Lottery	6.507	*.002
Street entertainment	2.285	.103	Casino gambling – slot machines	5.651	*.004
Themed shopping	2.028	.133	Casino gambling – table games	9.441	*.000
Themed dining	1.493	.226	Car racing	8.471	*.000

* Significant at the 95% confidence

A further analysis regarding where in particular the difference between groups laid, the Tukey HSD test summary results are also presented in Table 5 for better illustration. Each cell in Table 5 records the entertainment elements (represented in numbers) which demonstrated significant difference (at the 95% confidence level) between the sample groups. The sign preceding the numbers indicate the direction of the difference. For example, -1 means that the two sample groups differed significantly in the perceived importance level of “Live concerts”, with the sample group on the horizontal heading allocating lower importance (thus bearing a negative sign) than the sample group on the vertical heading. By the same token, +9 means the sample group on the horizontal heading allocated significantly higher importance to “Thrill rides and roller coasters” than the sample group on the vertical heading. In conclusion, the pair of groups containing the fewest numbers in cell means they are more similar to each other, and vice versa.

Following this explanation, one can observe that tourists and employees differed greatly when it came to the importance of entertainment provisions in destination choice process, with employees placing significantly lower importance to all the identified entertainment elements in the cell. On the other hand, Macao residents and employees differed significantly in 6 elements only, also with employees placing lower importance across the board than residents.

While the entertainment facilities serve all three groups of stakeholders, they held different and mixed opinions regarding their role and importance. Where there is a significant difference, employees’ scores were all lower than the other two stakeholder groups. These results merit special attention, especially from the side of the industry operators (employers). One potential reason why the employees did not place as high important rating to these entertainment activities as the tourists and residents may be that they were tired of what they had been facing everyday in their usual work environment, and that their morale started to decline. It is essential to motivate the employees so that they can positively affect the overall experience of the visitors when they are in contact with them. One simple example is that teachers need to find the topic they are teaching interesting themselves such that their students may feel the same. Therefore, the results may alert the industry employers of the need to develop some incentive programmes to upkeep their employees’ morale and interest in working in this industry.

Table 5: Tukey HSD test summary

	Residents	Employees	Tourists
Residents			
Employees	+9, +10, +15, +21, +22, +23		
Tourists	-1, -3, -4, -6, -17, -25, -26	-3, -4, -6, -9, -14, -15, -16, -17, -20, -21, -22, -23, -24, -25, -26	

(1="Live concerts and shows", 2="Popular concerts", 3="Classical concerts", 4="Magic", 5="Opera and musical", 6="Girl shows", 7="Theatres", 8="Theme park", 9="Thrill rides and roller coasters", 10="Circus and acrobatics", 11="Street entertainment", 12="Themed shopping", 13="Themed dining", 14="Spectator sports", 15="Karaoke", 16="Bars and disco", 17="Horse riding", 18="Themed wedding", 19="Themed transportation", 20="Golf", 21="Horse racing", 22="Greyhound racing", 23="Lottery", 24="Slot machines", 25="Gaming tables" and 26="Car racing")

Awareness and Adequacy of Entertainment Offerings in Macao

The second part of this paper interprets the data on two major aspects (1) the awareness level of the employee respondents of the presence of the 26 entertainment elements in Macao and (2) the adequacy of such offerings. The former used a dichotomous question type and if the answer was "yes" then the latter would be asked. A summary of the responses was presented in Table 6.

Since only when the respondent was aware of the existence of the respective entertainment elements in Macao would then be prompted with the adequacy measurement, the number of cases (N) in Table 6 represented the awareness level (out of 48 respondents). There were 9 elements whose awareness levels were less than 50% (N<24), with the lowest one being "themed wedding" (N=7), followed by "circus and acrobatics" (N=11) and "thrill rides and roller coasters" (N=14). Themed wedding is currently at its infant stage in Macao. However, followed by the opening of many high-end hotels (most of which with a theme of its own) with banquet facilities, this aspect could be developed better in the foreseeable future. As for circus and acrobatics, ever since the famous Canadian circus group "Cirque du Soleil" starting their residence performance in Macao, people initially believed that this could enhance the diversity of entertainment in Macao. However, recent news said that it might cease operation starting April 2010 due to low admission rate (Macao Daily News, 2010). It could be attributable to the fact that not many people were aware of its existence (even those working in the tourism and hospitality industry).

As for those entertainment elements with the highest awareness level, the results align with the general expectation. The two casino gambling elements carried an extremely high awareness level of 95.8% (N=46), followed by "car racing" (N=44). The other gaming related elements were also with high awareness level. Amid all the entertainment facilities/events that Macao has to offer, people (employees in this case) are still overshadowed by the casinos and gambling facilities everywhere they go in Macao. Also, the annual Grand Prix is an international event that brings Macao under the spot light every year. Macao, if it wants to develop more diversified tourist product portfolio, needs to create more awareness campaign so as to alert the world what it has to offer on top of its gambling facilities.

For more reliable analysis of the adequacy level, only those elements with awareness level of 50% or more (N>24) will be considered in the following discussion. Again, using mean level of 3.5 as the distinguishing line, most entertainment elements were considered adequate (mean \geq 3.5) except for "theme park" (mean=3.14) and "popular concerts" (mean=3.12). The gambling related facilities were considered to be the most abundant by the respondents. Besides, respondents also agreed that night entertainments (karaoke, bars and disco) were quite plentiful in Macao. However, the data revealed that Macao was considered to be lack of entertainment facilities that were suitable for the whole family (for example the theme parks and popular concerts previously

mentioned). Those family-oriented entertainment alternatives, though above the 3.5-level, tended to be scored low. In fact, in the earlier section of this paper (and in the author's another publication mentioned previously), it was found that respondents placed higher importance to entertainment offerings that tended to be more family-friendly when selecting a travel destination. The role played by gambling and night activities was not very impressive in these two studies. People travel not simply for gambling, especially for long haul tourists or those travelling with families. They considered many other recreational activities to be more important.

Table 6: Awareness and adequacy ranking of the entertainment offerings in Macao

	N	Mean	Std. Deviation
Casino gambling - Table games	46	6.15	1.032
Casino gambling - Slot machines	46	6.15	1.074
Lottery	39	5.56	1.447
Car racing	44	5.41	1.468
Greyhound racing	33	5.24	1.370
Horse racing	38	4.97	1.636
Karaoke	43	4.93	1.352
Bars and disco	43	4.53	1.437
Girl shows	23	4.52	1.755
Horse riding	13	4.23	2.048
Classical concerts	33	4.03	1.262
Themed wedding	7	4.00	2.000
Themed dining	30	4.00	1.462
Golf	39	3.87	1.361
Live concerts and shows (in general)	33	3.79	1.269
Theatre	32	3.78	1.338
Themed transportation	13	3.69	1.653
Opera and musical	33	3.55	1.121
Themed shopping	23	3.52	1.504
Spectator Sports	27	3.52	1.369
Theme park	35	3.14	1.287
Popular concerts	33	3.12	1.083
Street entertainment	19	2.95	1.393
Circus and Acrobatics	11	2.91	1.136
Thrill rides and roller coasters	14	2.79	1.626
Magic	22	2.77	1.020

Scale ranged from 1 to 7, with 1 being "Very Inadequate" and 7 being "Very Adequate".
"N" stands for the awareness level of the respective entertainment elements out of the 48 responses.

CONCLUSION AND IMPLICATIONS

This paper reveals some interesting findings. Firstly, the lower-than-expected importance level of the gambling related elements in the destination choice process should alarm the policy makers that Macao should diversify its tourist product portfolio in order to have sustainable tourism development and attract more long haul tourists who would stay longer and possibly spend more. There may be other recreational activities that exert influence on people's destination choice. More effort should be diverted to promoting other types of entertainment to achieve this aim.

According to the results from this paper, the top three entertainment activities that affected people's destination choice the most were themed dining, theme park and themed shopping. While currently we see Macao developing more and more large-scale shopping malls (most of which are incorporated with themes). More effort should be put in further developing them and more importantly making them known to the user

groups (tourists and residents) as the awareness level (as indicated in this study) was relatively low even among the employee group who were generally thought to know more about what Macao has to offer when compared to the tourists and other Macao residents. Albeit the awareness level of the entertainment elements in general was acceptable, some require more promotional effort. For example, theme parks were considered one of the top 3 most important entertainment elements when choosing a destination but its awareness level was among the lowest.

Creating more awareness campaigns in this aspect could entice more people to visit Macao. Specifically, choosing effective and efficient local and international media channels as well as establishing clear branding and positioning are paramount. On the other hand crowd management and demand analysis have often been cited as key areas in enhancing tourist experience on site; and good coordination between the government and industry is also very important in contributing to a more effective and cohesive marketing effort. From these we could see that promotional effort should not be just directed to the user groups (particularly the tourists) BEFORE their visit (in raising their awareness) but also DURING their visit (on-site experience management) in order to generate continuous word of mouth and referrals. In addition, this study highlighted the need for Macao to provide more diversified entertainment offerings, including more family-oriented recreation facilities that are suitable for all ages rather than focusing too much on casinos and night entertainment.

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KEEPING THE “ATTRACTION” IN INTERNATIONAL TOURIST ATTRACTIONS

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ABSTRACT

This research explores the factors that will keep those on whom international tourist attractions rely for a disproportionate share of their revenue (short- and medium-distance travelers) coming back for more. Based on a survey of consumers in the North American border region that is home to Niagara Falls, it identifies three dimensions of the tourism travel experience (value, informational and experiential, and border crossing) whose enhancement will lead to increased visits to international tourist venues. Additionally, two distinct benefit segments emerge (value and experiential), with implications for cross-border marketing strategies.

INTRODUCTION

If the 20th Century brought unprecedented world economic growth, previously unimagined developments in transportation and communications technology and the drastic reduction of barriers to trade and travel, the 21st should be the golden era of global tourism – right? Perhaps, but for the tourism industry again to find the wind at its back it will have to find a way to navigate through the strong headwinds that characterized the first decade of the new century – from terror alerts to crime waves to the worst global recession since the Great Depression.

The purpose of this paper is to explore the factors that will keep those on whom international tourist attractions rely for the lion's share (with apologies to Kruger Park) of their revenue coming back for more. Based on a survey of consumers in the North American border region that is home to one of the world's top natural attractions – Niagara Falls – it attempts to identify areas of economic, experiential and logistical enhancement that will lead to increased visits to and expenditures at tourist venues. Whether such an effort is of value or merely foolhardy, given Wilkinson's (2009) assertion that “predicting the future of tourism is akin to predicting the future of a ‘mess,’” we will leave to our readers to determine.

THE CHALLENGE & THE MAINSTAY

Statistically and anecdotally, evidence of the challenges confronting tourism managers abounds. In the first 11 months of 2009, tourist travel to the United States, measured in number of arrivals, was down 6.3 percent from the prior year (ITA 2010). Here in South Africa, Cape Town Routes Unlimited (CTRU) reported “a reluctance on the part of hard hit consumers to travel long distances” (Tourism in South Africa 2010). As a consequence, the Garden Route, “long hailed as the tourism mecca of the country,” experienced a dearth of international visitors and “was not among the top performers ... when it came to attracting international tourists last year.” Such results are hardly unique to North America and South Africa.

Does the falloff of long-distance tourism need to spell financial catastrophe for attractions relying on international tourism revenues? A glimpse at where the bulk of those revenues come from, even in more prosperous economic times, suggests it may not. Xu, Yuan, Gomez and Fridgen (1997) compared short-distance (within 250 miles or about 400 kilometers), medium-distance (251 to 500 miles or approximately 400 to 800

kilometers) and long-distance travelers (more than 500 miles or 800 kilometers) to attractions in the border state of Michigan in Midwestern United States. They found that “frequent or repeat travelers are more likely to be those who reside with a 500 mile radius from a travel destination than those who reside some distance from the destination” (p. 103). The South African experience appears to be similar; the CTRU indicated that “91% of visitors to the Garden Route and Kellin Karoo were domestic travelers,” with 60% coming “from within the Western Cape” (Tourism in South Africa 2010). In border regions, findings have been similar. Lord, Putrevu and Shi (2005), for example, reported that the perceived attractiveness cross-border consumption declined as the distance the consumer needed to travel to reach the border increased.

Clearly a key to the economic success of international tourist attractions is to induce repeat visits from their most regular patrons who, in good and bad times, come disproportionately from short and medium distances away. This becomes especially critical in periods, such as the present, when external factors reduce long-distance travel for tourism purposes. When such travel requires the crossing of a national border (the focus of this research), the challenge for tourism managers seeking to lure consumers from the neighboring country to their attractions takes on some unique and interesting dynamics, including such factors as the novelty (which may arouse both pleasure and apprehension) of the “foreign” experience and the inconvenience and potential cost of the border crossing itself (due to traffic, the possible need to convert currency and the ramifications of fluctuating relative currency valuations, customs enforcement, etc.).

CROSS-BORDER TOURISM INFLUENCES

A growing body of literature has addressed the variables that motivate consumers to cross national borders for varying types of tourism consumption. In an early study in this area, Leimgruber (1988) reported the influence of ability, willingness and freedom to cross the border, contrast between neighboring and home countries, and awareness of travel and consumption opportunities. Others have pointed to the effect of economic variables such as transfer costs, profit margins, taxation, exchange rates and prices (Timothy 1999; Ferris 2000; Webber 2001; Dwyer, Forsyth and Rao 2002; Lord, Putrevu, Shi and Deniz 2002; Kauffman 2007). Non-price strategic factors under the control of tourism managers have also been shown to help or hinder the attraction of foreign consumers, such as hours of operation, atmosphere, service, variety, advertising, promotions, Web sites and the quality of and affective pleasure provided by the tourist experience (Lewis 1990; Sullivan and Kang 1990; Van der Velde 2000; Kauffman 2007; Lord, Putrevu and Shi 2008).

RESEARCH PROPOSITIONS

The influences revealed in the studies noted above emerged from the examination of a variety of cross-border consumption experiences (e.g., shopping, vacationing, dining). They do not speak directly to the purpose of this paper which, as noted earlier, is to identify strategies that will generate repeat tourist traffic to international tourist attractions by consumers living short to medium distances away, but they have the potential to inform this research. The potential influence of an array of variables will be considered, including economic considerations (price, exchange rate, tax savings), perceived quality of the attraction itself and of services experienced in visiting it, information exposure (advertisements and media coverage), the fun or novelty of the “foreign” experience, and border-crossing issues (traffic and customs enforcement). Of particular interest in this research are the questions of whether distinct benefit segments can be identified, how these potential motivators relate to the relative appeal of attractions in an adjacent country (rather than the consumer’s domestic market) and the anticipated future frequency of such visits. Given the exploratory nature of this research, expectations are stated as research propositions rather than formal hypotheses:

1. Improvements in the following areas will enhance the appeal and the frequency of visits to attractions in adjacent countries for consumers living in border areas:
 - a. Economic conditions
 - b. Quality of attractions and associated services
 - c. Information exposure
 - d. Affective allure of the “foreign” experience
 - e. Border-crossing experience

2. Consumers can be categorized into distinct psychographic segments based on their susceptibility to improvements in the above variables.

METHOD

A test of the above propositions requires the collection of data from inhabitants of a border region with attractions that are at least partially dependent for their economic success on attracting visits from the neighboring country. The Niagara Frontier region that connects western New York in the United States with southern Ontario in Canada was selected for this purpose. Consumers living on the U.S. side of the border participated in a survey about their cross-border-travel experiences, purposes, perceptions, satisfaction and intention. Screening ensured that all respondents had crossed the border into Canada at least once during the time they had lived in the region. (Most living in the area do so at least occasionally.) Students who had market-research training collected data from a judgment sample of 489 consumers, designed to tap the demographic heterogeneity that exists in the population. Resource constraints rendered a judgment sample more practical than attempting to generate a probability sample and the exploratory nature of the study justified such an approach. The use of marketing-research students to collect data fulfilled the dual purpose of expediting the data-collection process at minimal cost and providing students with hands-on experience in the market-research process.

The proposition-relevant dependent variables were measured as follows: relative appeal of the neighboring country – “The country with the most to offer in tourist attractions is: Canada [1] ... United States [7]”; anticipated future frequency – “How often do you expect to visit attractions on the other side of the border during the next year: [1] not at all ... [7] more than twice a week.” The following scale measured the potential influence of each of the variables identified in the proposition: “Improvement in this area would: make no difference in visits to attractions in Canada [1] ... substantially increase my visits to attractions in Canada [7].” The variables thus measured were: price; exchange rate; tax savings; quality and variety of attractions; helpful, friendly service; advertisements from across the border; media coverage; the fun or novelty of traveling in Canada; degree of border-point customs enforcement; and amount of traffic at the border crossing. Respondents also indicated the travel time required to reach the Canadian border from their homes (less than ½ hour [1] ... more than 3 hours [7]) and their household size, gender, age and income.

Sample characteristics reflected the desired level of heterogeneity, providing reasonable representation of the population of the region: 45% male and 55% female (compared with regional average of 47% male and 53% female in 2008, as reported in <http://www.city-data.com/city/Niagara-Falls-New-York.html>), all adult age groups included from 18 through retirement years, mean number of household residents 3.36. Respondents lived at varying distances from the border (less than ½ hour away to more than 3 hours), the median category being ½ to 1 hour away and the mean falling between that category and 1 to 1½ hours.

RESULTS

Sample means and standard deviations for the influence variables are depicted in Table 1. Across the sample as a whole, responses indicate that surveyed consumers’ visits to attractions across the border would be influenced most strongly by improvements in price, exchange rate, attraction quality and tax savings (means greater than 4 on the 7-point scale). Wielding moderate influence (means between 3 and 4) were improvements in attraction variety, service, border traffic, the pleasure and novelty of the foreign travel experience, and customs enforcement. Of somewhat less perceived influence (means between 2 and 3) were advertising and media coverage.

Table 1
Means of Influence Variables

<i>Variable</i>	<i>Mean</i>	<i>Standard Deviation</i>
Price	5.10	2.01
Exchange rate	5.07	1.98

Attraction quality	4.35	2.08
Tax Savings	4.27	2.22
Attraction variety	3.73	2.05
Helpful, friendly service	3.51	2.10
Border traffic	3.42	2.08
Fun & novelty of foreign travel	3.37	2.08
Customs enforcement	3.01	2.04
Advertising	2.86	1.87
Media coverage	2.39	1.76

While these results are somewhat informative, one should be wary of over-interpreting results at this level. The range of response for each variable took in the full scale (1 to 7) and, as can be seen in Table 1, several of the variables have sizable standard deviations given the number of scale points and the often modest differences in means. Given the observed variance, it becomes particularly important to search for patterns within the results that might reveal the existence of distinct benefit segments.

To identify patterns of influence which could be used for further analysis, both to identify benefit segments and to assess the relationship of the influence variables with the dependent constructs identified earlier, principal-components analysis was used. With three eigenvalues greater than one, a three-factor solution was examined. The three factors were interpretable, aligning reasonably with the dimensions revealed in some of the studies discussed previously, and accounted for 63% of the variance in the data. Varimax rotation yielded the factor loadings shown in Table 2.

Table 2
Rotated Factor Loadings

<i>Variable</i>	<i>Value</i>	<i>Informational & Experiential</i>	<i>Border Crossing</i>
Exchange rate	.82	.07	.19
Price	.82	.14	.17
Tax savings	.73	.17	.21
Attraction quality	.71	.36	-.02
Advertising	.12	.79	.21
Media coverage	-.05	.77	.25
Fun/novelty of foreign travel	.21	.61	-.04
Helpful, friendly service	.40	.61	.04
Attraction variety	.46	.60	-.04
Customs enforcement	.15	.06	.85
Border traffic	.19	.18	.80

The first factor combines high loadings on the economic variables (exchange rate, price and tax savings) with one for attraction quality, suggesting that respondents were considering not only the costs but also the quality of the experience in arriving at an estimate of value of the experience of visiting attractions across the border, and is thus labeled “Value.” This factor relates to the “economic conditions” and “quality of attraction” elements of Proposition 1a and 1b. The second combines the informational constructs (advertising and media coverage, related to Proposition 1c) with experiential dimensions of visits to foreign attractions (fun and novelty of the foreign travel experience – Proposition 1d, helpful and friendly service – Proposition 1b, attraction variety – Proposition 1d) and has been named “Informational & Experiential.” The two border-crossing variables (customs enforcement and border traffic – Proposition 1e) have the only high loadings on the third factor, “Border Crossing.”

Use of the uncorrelated factor scores for the Value, Informational & Experiential, and Border Crossing factors provide a viable basis for the unbiased estimation of the relationship between the influence variables and the two dependent variables (relative appeal of the neighboring country as a travel destination and intended

future frequency of visits to attractions there). Table 3 depicts the results of the two regression models, both of which were significant but explained only a modest amount of variance in the dependent variables.

Table 3
Regression Results

<i>Dependent Variable</i>	<i>F</i>	<i>Adj. R²</i>	<i>Value</i>	<i>Inform./Exper.</i>	<i>Border Crossing</i>
Relative Appeal	2.66 ^a	.10	-.10 ^a	.02	-.08
Expected Frequency	3.15 ^a	.13	.09 ^a	.10 ^a	-.03

a. $p < .05$

For the border-area consumers in this sample, the relationship between the influence of improvements in the value (cost and quality) of the experience of visiting attractions in the neighboring country and current perception of that country's appeal for such a purpose is negative. This suggests that those who would most be influenced to visit such attractions through improvements in the value offering are those whose current perception of the Canadian market's attractiveness is relatively low. The other two factors were unrelated to the relative appeal of the neighboring country. Two of the three factors were significantly related to the anticipated frequency of future visits to the neighboring country's attractions: Value and Informational/Experiential. In other words, the very consumers whose behavior would most be influenced by improvements in those two areas are the ones on whom the foreign attractions disproportionately rely for their revenue, since they project the highest frequency of future visits. It is worth noting that improvements in the border-crossing experience, though seemingly of modest influence in the mean scores for those constructs, were neither significantly positively nor negatively associated with either the perceived appeal of the neighboring country or the level of anticipated future visits. These results provide tentative evidence consistent with points a, b, c and d of the first research proposition, but not for e.

Cluster analysis was applied to establish whether distinct benefit segments could be identified based on the responses to the influence items. Results are shown in Table 4. Nearly two thirds of the sample constituted a "Value" segment, with cluster centers revealing that they were somewhat more strongly influenced by value than the sample as a whole (cluster center of +0.05) but were less responsive than average to improvements in the informational/experiential and border-crossing dimensions (cluster centers of -0.57 and -0.25, respectively). The remaining respondents (labeled an "Experiential" segment), just over a third of the sample, were less susceptible than average to value (-0.09) but more responsive to the other two factors (+1.00 and +0.44) for informational/experiential and border crossing.

Table 4
Cluster Analysis Results

<i>Factor</i>	<i>Experiential</i>	<i>Value</i>
Value	-.09	.05
Informational/Experiential	1.00	-.57
Border Crossing	.44	-.25
Percent of Sample	36.4	63.6

With a single exception (exchange rates), the two segments had significant differences in mean raw scores for the influence variables (t values > 3.0 , $p < .005$) in the direction consistent with the cluster centers. Further analysis found no significant differences between the two segments in gender, age, income or distance from the border. There was a significant difference between the two segments in size of household, with the experiential segment being significantly larger than the value segment (means of 3.59 and 3.25, respectively, $t = 2.40$, $p < .05$). These results are consistent with the second research proposition and reveal that these segments are defined almost exclusively on a psychographic (benefits) basis, with little in the way of demographic differences to distinguish them.

DISCUSSION

This research set out to explore what variables might enhance the patronage of short- and medium-distance travelers at international tourist attractions in neighboring countries. Three dimensions of influences were identified: Value, Informational & Experiential, and Border Crossing. However, further analysis suggested that when it comes to perceived appeal of foreign markets to consumers and their intention to visit their attractions they fall into two distinct benefit segments: Value and Experiential.

The Value segment is about twice as large as the Experiential group. The observed negative relationship between foreign-country appeal and the feeling that improvements in the value (cost and quality) of the visits to attractions in neighboring countries may imply the existence of a ceiling effect when it comes to investments in value delivery for visitors from across the border. Those who find in the present state a high level of appeal in the neighboring country as a destination for such experiences are unlikely to have that perception increased by such strategies. However, the results of this study would suggest that value-based strategies may be the most efficient route to attracting those of this large segment who are not yet satisfied with this aspect of cross-border travel. The Experiential segment, though smaller than the Value, is highly susceptible to improvements in communication, service, variety, and the affective aspects of the foreign-travel experience.

Practically, this suggests that no single strategy will appeal to all and tourism managers will need to devote attention and resources to both value and experiential dimensions of their offerings to cross-border travelers. The task is complicated by the lack of demographic discriminators between the two segments, but carefully crafted value offerings and communication strategies should enable either type consumer to self-select those of most relevance and appeal, with the consequence being a higher level of satisfaction and patronage among those short- and medium-distance travelers on whom attractions must rely for repeat patronage and revenue in the current economic climate.

The above prescriptions need to be couched in a recognition of the limitation that this research is exploratory. Results and recommendations stem from measures of self-reported perceptions and expectations of a non-probability sample in a single border region. While they are “real” consumers with a profile that bears sufficient resemblance to the population to lend some credibility to the results, the ultimate validation and generalization of these findings awaits further research with probability samples in multiple border regions and with actual behavioral observations. It is hoped that this research provides a useful stepping stone for scholars and tourism managers interested in keeping the “attraction” in international tourist attractions.

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INVESTIGATING THE COMPETITIVENESS OF AGRI-FOOD INDUSTRIES IN THE OECS SUB- REGION

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ABSTRACT

This paper assesses the competitiveness of agri-food industries in the Organisation of Eastern Caribbean States (OECS) vis-à-vis the EU in light of the current shift in trade dynamics, including the recently-signed Economic Partnership Agreement (EPA) with the EU. Using several measures of revealed comparative advantage at both the two and four-digit levels, we find that there are similarities in specialisation in broad agricultural product groups in the sub-region, but notable differences at more disaggregated levels. The variation in comparative advantages across the OECS suggests that countries with uncompetitive industries in the sub-region are essentially competing with their more highly specialised regional counterparts for market share within the EU. The findings suggest that countries in the OECS should aim to direct resources toward the most competitive industries to ensure that they remain buoyant in the face of increasing competition for the European market.

INTRODUCTION

The current phase of trade liberalisation and the accompanying increase in competition among exporters is of particular relevance for the small, developing economies in the Caribbean as it represents a paradigm shift from the uni-directional preferential arrangements many of them have enjoyed for decades, toward a system of reciprocity and competition.

Under the World Trade Organisation (WTO) General System of Preferences (GSP) as well as through developmental arrangements such as LOMÉ, the Caribbean Basin Economic Recovery Act (CBERA) and CaribCan, the region has been afforded non-reciprocal preferential treatment for many of its exports since the 1970's. Up to 2007, non-Least Developed Countries (LDC) African Caribbean and Pacific (ACP) countries, which include the Organisation of Eastern Caribbean States (OECS) member states, benefitted from duty-free access for 87.9% of their agricultural products into the EU. However, the erosion of these preferences, in particular the phasing out of major agricultural commodity protocols and the reduction in EU tariffs on imports from non-ACP countries will challenge exporters in the region who will now be exposed to strong competition from other jurisdictions. This is of particular relevance for the small, open economies of OECS which are highly dependent on the foreign exchange earnings from agricultural food exports. Thus, identifying the most competitive industries and countries will be critical to understanding which may be more exposed to the impacts of these changes and, perhaps equally importantly, which are most capable of responding.

This paper attempts to answer these questions, employing a series of indices founded on the Ricardian-based theory of comparative trade advantage and will proceed as follows. Section 2 provides a brief overview of

the contemporary trade relationship between the EU and the OECS territories as well as a synopsis of the relevant studies into trade specialisation and comparative advantage in the Caribbean. Section 3 briefly describes the methodology employed in the paper. Section 4 provides the results. Section 5 offers some concluding remarks and highlights the policy implications of our findings.

EU-OECS TRADE

As a major trading partner of the OECS region, the EU is one of the leading markets for the region's exports of agricultural produce. From 2000-2006, OECS exports to the EU averaged USD\$83 million, of which roughly 28% were agricultural products. For some countries, this ratio is significantly higher. While exports of food and live animals only accounted for 11% of St. Vincent-EU trade, they accounted for over 70% of total exports to the EU from St. Lucia, Grenada and St. Kitts.

Despite the importance of trade with the EU, the value of food and animal product exports entering the Union from the OECS—both in terms of volume and as a percentage of total exports—has declined since 2000.

EU-CARICOM trade has been directed by a series of agreements which provide tariff-free access for OECS goods entering the EU. Specifically, the WTO GSP allows for the region to be granted preferential treatment under the Most Favoured Nation (MFN) provisions. Through a series of legal waivers, a network of non-reciprocal preferences also allowed tariff-free access for most of CARICOM's goods entering the EU market and these had been maintained under successive WTO trade rounds of Lomé I through IV (1976-2000) and their successor, the Cotonou Agreement (2000-2007).

In addition to these agreements, a number of commodity protocols provide further preferential treatment in the form of guaranteed volumes and prices, particularly for bananas and sugar. Not only do these arrangements provide broad coverage, but the rate of utilisation—the extent to which countries export under the preferential regime—is generally high (Bureau et al., 2006).

These protocols have progressively been eroded by two concurrent changes in the international trade regime. First, the proliferation of multilateral free trade arrangements such as the recently signed Economic Partnership Agreements (EPAs) between the EU and CARIFORUM —CARICOM countries (excluding Haiti and Montserrat) along with the Dominican Republic—that established a comprehensive framework for reciprocal trade relations and represented a shift away from unidirectional trade preferences toward reciprocity. The EPA requires CARIFORUM, *inter alia*, to open its respective markets through a 25-year phased tariff reduction to imports from the EU. A meta-analysis by the Overseas Development Institute (2006) notes that based on both general and partial equilibrium modelling, the potential impact of these changes is anticipated to be mixed, as net trade creation in favour of more efficient producers within the region appears to be dependent on the degree of simultaneous tariff cuts.

Second, the increase in the incidence of legal challenges to existing arrangements is likely to result in increased competition for the EU and other markets from lower cost producers. This further underscores the need to identify the most competitive industries and territories within CARICOM and the OECS, as small-island economies are expected to be most impacted by changes to these protocols (Milner et al., 2009).

However, while both the EPA and changing global trade dynamics present challenges, in the form of reduced preferences and additional competition, they also create new opportunities, as the scope for the most efficient producers to increase their penetration of the EU market is improved. In order for countries to benefit most from the opportunities presented via these new arrangements, it is critical that they are able to identify territories and commodities in which they are most competitive.

Surprisingly, there has been limited research in this area. In fact, despite the importance of export earnings to the region, there remains a paucity of research into trade specialisation within the Caribbean generally, and the OECS in particular. Most early research was directed toward examining trade flows and, as a result, less empirical reference was made to country-level competitiveness and specialisation (see Ramsaran, 1993; McIntyre, 1995).

A few contemporary studies have also evaluated sectoral and national competitiveness. Lewis and Webster (2001), for instance, conducted country-level factor content analysis to explain the production and export dynamics of a number of Caribbean countries and found that within the region, there are significant differences in the export specialisation patterns between countries, but notable similarities when countries are compared to regional averages.

Employing diversification indices for the period 1961-2000, Taylor and Francis (2003) find that while there has been some level of diversification among Latin American and Caribbean countries, for many of these countries, particularly from the OECS, there has been a marginal level of diversification and these countries remained rather specialised.

In a comprehensive review of Trinidad during the period 1991-2005 and using the original and modified permutations of the Balassa Index, Hosein (2008) found that Trinidad had a comparative advantage in the exportation of hydrocarbon commodities when compared with the rest of the world and that this advantage was relatively constant over time. Using several measures of revealed comparative advantage (RCA), Lorde et al. (2010) found that not only did Barbados have stable comparative advantages in *Live Animals*; *Raw Sugars*, *Beet and Cane*; and *Spirits*; the competitiveness of the latter commodities were very stable over time. They also concluded that additional export opportunities existed in a variety of other commodity groups.

Despite these studies, there appears to be no research that focuses exclusively on the OECS and their export specialisation and competitiveness with the EU. Given the perceived vulnerability of the small, open economies of the OECS to fluctuations in trade patterns and their dependence on foreign exchange earnings from exports, it is critical that their advantages are identified and exploited. As such, the current research will provide a useful indicator of the sources of trade advantage in the OECS sub-region vis-à-vis the EU and will offer policymakers a useful tool for determining the most efficient allocation of resources across the region.

METHODOLOGY AND DATA

To analyse the competitiveness of commodities from the OECS, we employ the empirical model of revealed comparative advantage (RCA) which was proposed by Balassa (1965, 1979) and is one of the most widely used benchmarks of domestic exporter competitiveness (De Benedictis and Tamberi, 2001). More specifically, this paper will employ the Balassa Index and two of its variants to determine in which commodities OECS have a competitive advantage vis-à-vis the EU.

Comparative advantage in the Balassa Index is inferred by observing the extent to which a country's exports of a given product, relative to its total exports, compares to a similar ratio constructed using a single territory or group of reference territories. The Balassa Index therefore points to a "revealed" comparative advantage or "revealed" export advantage (RXA) and is calculated as:

$$(1) \quad RCA_{ij}^1 = RXA = \frac{X_{ij} / \sum_{j=1}^J X_{ij}}{\sum_{n=1}^N X_{nj} / \sum_{n=1}^N \sum_{j=1}^J X_{nj}}$$

where X_{ij} is country i 's export value of commodity j ; $\sum_{j=1}^J X_{ij}$ is the total export value of country i ; $\sum_{n=1}^N X_{nj}$ is the export value of commodity j for a set of N reference countries; $\sum_{n=1}^N \sum_{j=1}^J X_{nj}$ is the export value of all commodities for a set of N reference countries; and RCA_{ij}^1 is the revealed comparative advantage of country i in commodity j . The values generated by Equation (1) can be subject to binary interpretation such that when RCA_{ij}^1 is greater than 1, it indicates that country i has a comparative advantage in the export of commodity j in the market of a set of reference countries; while RCA_{ij}^1 less than 1 indicates the country possesses a comparative disadvantage.

Despite its usefulness, there are a number of empirical issues which must be considered when employing this measure of comparative advantage. The first of this is, as Greenaway and Milner (1993) suggest, the measure is biased from the perspective that it fails to account for imports and, as such, implies possible over or underestimation of any underlying comparative advantage or disadvantage. The second permutation of the RCA takes account of imports by calculating the original index based on net exports, rather than total exports. By including imports, this index provides a useful indicator of comparative advantage with respect to total trade flows. This variant is represented as:

$$(2) \quad RCA_{ij}^2 = \frac{X_{ij} - M_{ij}}{X_{ij} + M_{ij}}$$

where X_{ij} and M_{ij} are country i 's export and import values of commodity j to the world or a set of reference countries respectively. RCA_{ij}^2 ranges in value from -1 to 1 where values greater/less than 0 are indicative of comparative advantage/disadvantage with respect to that commodity (or commodity group).

The final index to be employed in the current study follows Vollrath (1991) who proposed alternative methodologies for capturing the import component of trade flows. One of the most widely used of this is the Vollrath index based on the difference between the revealed export advantage (RXA) and the revealed import advantage (RMA), with notation as follows:

$$(3) \quad RCA_{ij}^3 = RTA = RXA - RMA = \frac{X_{ij} / \sum_j X_{ij}}{\sum_i X_{ij} / \sum_i \sum_j X_{ij}} - \frac{M_{ij} / \sum_j M_{ij}}{\sum_i M_{ij} / \sum_i \sum_j M_{ij}}$$

where variables are as defined in Equations (1) and (2). With this measure, positive values indicate comparative advantage. Vollrath (1991) also proposed additional measures of revealed comparative, that is, the \ln measures— $\ln(RXA)$ and $\ln(RXA) - \ln(RMA)$ —which were designed to address the asymmetry of the Balassa Index (RXA). However, these have been challenged on the ground that the forced symmetry imposed by the log transformation may obscure the underlying dynamics of the Balassa Index and actually bias the resultant analysis. Consequently, the \ln measures will not be considered in the current research.

Given that varying indices will produce different (even conflicting) results of revealed comparative advantage (Lorde et al., 2010) we follow Ballance et al. (1987) and conduct a series of consistency tests to determine how the computed indices perform as ordinal, cardinal and dichotomous measures. To test whether the ordinal measures provide consistent ranking of comparative advantage, Ballance et al. (ibid) suggest the use of rank correlation coefficients where cross-country pairs of indices are used. The authors then propose a similar approach for testing the consistency of the cardinal measure, simply by employing pair-wise correlation coefficients. The final test of the indices as dichotomous measures is determined by the proportion of commodity groups in which both paired indices have comparative advantages/disadvantages. In all of these tests, values close to unity suggest that the measures are consistent.

Export data for the agri-food sector were sourced from the United Nations (UN) Comtrade database for the period 2000-2006 at both the two- and four-digit levels, the former to provide some generalisable comparisons and the latter to more clearly analyse the underlying product groups responsible for the identified instances of comparative advantage/disadvantage. Due to unavailability of data in some cases, results for only five OECS countries are reported. The RCA indices are calculated against the EU-15 as the comparator.

RESULTS AND DISCUSSION

Following De Benedictis and Tamberi (2001), the calculated indices are compared at the cross-industry and cross-country levels. Regarding the former, the OECS sub-region exhibits a comparative advantage vis-à-vis the EU market primarily in the *Vegetables and Fruit*; and *Coffee, Tea, Cocoa and Spices* export categories (see Tables 1-3). Apart from these goods, Dominica and Grenada also exhibit comparative advantages in *Miscellaneous Edible Products* and *Fish, Crustaceans and Molluscs* respectively.

However, on inspection, the indices appear to produce mixed indications of which goods are the most competitive in the region. For example, while all three indices provide similar average results for Dominica (that is, they all suggest comparative advantage in *Vegetables and Fruit*; and *Coffee, Tea, Cocoa and Spices*; and *Miscellaneous Edible Products*) RCA_{ij}^1 and RCA_{ij}^2 provide differing results for St. Vincent and the Grenadines, St. Kitts and Nevis and St. Lucia.

Thus, it is necessary to examine the consistency of these indices. Following Ballance et al.'s (1987) three-stage methodology, we examine the consistency of these indices as cardinal, ordinal and dichotomous measures more closely. First, Pearson pairwise correlation coefficients are calculated to determine the consistency of the indices as cardinal measures of comparative advantage. Ordinality is determined using the Spearman rank correlation coefficient for each pair of indices. The share of product groups in which both of the paired indices indicate comparative advantage or comparative disadvantage respectively allows us to test whether the indices are dichotomous. Values close to 1 for each test indicate that a pair of indices is consistent as a cardinal, ordinal or dichotomous measure of comparative advantage respectively. In line with Lorde et al. (2010), an observed coefficient above 70% is regarded as a sufficient condition for accepting that two indices produce consistent results.

Over the seven-year period under study, only 11 of the 21 calculated correlation coefficients met this criterion, pointing to weak consistency among the three RCA measures used (see Table 4). However, all of the pairwise correlations between RCA_{ij}^1 and RCA_{ij}^3 were above 90%, suggesting that there is notable consistency with the results generated by these two particular measures. This is not surprising since RCA_{ij}^3 is essentially a variant of RCA_{ij}^1 that takes account of the import component of trade flows.

The Spearman rank correlation coefficients for the pairs of indices over the period suggest that the three RCA indices are even less consistent as ordinal measures, since less than 30% of those correlations met the 70% criterion. Results from the dichotomous test revealed that over 70% of the indices were significantly correlated.

In summary, the results suggest that there is weak consistency among the indices with respect to ranking comparative advantage, but that they are relatively consistent in providing a binary measure of comparative advantage/disadvantage. These results are similar to those reported by Lorde et al. (2010) who calculated five different permutations of the RCA index and found that in general, RCA measures were less consistent in ranking comparative advantage than in providing the binary-type measure.

Table 1: RCA^1

Commodity	2000	2001	2002	2003	2004	2005	2006
Dominica							
Live Animals	0.01	0.00	0.00	0.00	0.00	0.00	0.01
Meat, Meat Preprtns.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dairy Products, Bird Eggs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fish, Crustaceans, Mollusc	0.00	0.01	0.03	0.00	0.00	0.00	0.00
Cereals, Cereal Preprtns.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vegetables and Fruit	55.49	53.33	47.09	55.76	54.37	58.16	55.49
Sugar, Sugar Preprtns., Honey	0.00	0.00	0.01	0.03	0.06	0.01	0.00
Coffee, Tea, Cocoa, Spices	2.50	1.98	1.86	1.24	1.47	1.49	2.50
Animal Feed Stuff	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Misc. Edible Products etc.	14.98	23.77	17.80	7.78	5.88	9.70	14.98
Grenada							
Live Animals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meat, Meat Preprtns.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dairy Products, Bird Eggs	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Fish, Crustaceans, Mollusc	3.17	3.05	11.88	3.98	17.95	34.77	51.34
Cereals, Cereal Preprtns.	0.06	0.00	0.00	0.11	0.00	0.29	0.00
Vegetables and Fruit	0.98	0.76	1.35	1.15	1.66	0.13	2.20
Sugar, Sugar Preprtns., Honey	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coffee, Tea, Cocoa, Spices	103.04	139.84	190.92	145.63	172.98	173.21	144.00
Animal Feed Stuff	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Misc. Edible Products etc.	0.00	0.01	0.01	0.25	0.15	0.00	0.05
St. Kitts and Nevis							

Live Animals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meat, Meat Preprtns.	0.03	0.00	0.00	0.00	0.00	0.00	0.03
Dairy Products, Bird Eggs	0.13	0.24	0.12	0.08	0.27	0.00	0.13
Fish, Crustaceans, Mollusc	0.00	0.01	0.00	0.00	0.00	0.00	0.00
Cereals, Cereal Preprtns.	0.04	0.03	0.75	0.50	9.97	17.60	0.04
Vegetables and Fruit	0.02	0.00	0.03	0.00	0.00	0.82	0.02
Sugar, Sugar Preprtns., Honey	0.24	0.04	0.00	0.14	0.00	0.00	0.24
Coffee, Tea, Cocoa, Spices	210.03	217.64	187.92	204.53	0.00	0.00	210.03
Animal Feed Stuff	0.00	0.00	0.00	0.00	0.00	4.87	0.00
Misc. Edible Products etc.	0.19	0.14	0.19	0.01	0.00	1.28	0.19
St. Lucia							
Live Animals	0.00	0.00	0.02	0.00	0.01	0.02	0.00
Meat, Meat Preprtns.	0.00	0.10	0.00	0.00	0.00	0.00	0.00
Dairy Products, Bird Eggs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fish, Crustaceans, Mollusc	0.00	0.13	0.00	0.00	0.00	0.00	0.00
Cereals, Cereal Preprtns.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vegetables and Fruit	69.68	61.77	52.77	63.72	65.48	62.74	69.68
Sugar, Sugar Preprtns., Honey	0.00	0.00	0.03	0.00	0.01	0.00	0.00
Coffee, Tea, Cocoa, Spices	0.20	0.77	0.64	0.57	0.37	0.53	0.20
Animal Feed Stuff	0.00	0.00	0.00	0.01	0.00	0.00	0.00
Misc. Edible Products etc.	0.86	0.62	0.77	0.96	0.99	1.59	0.86
St. Vincent and the Grenadines							
Live Animals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meat, Meat Preprtns.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dairy Products, Bird Eggs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fish, Crustaceans, Mollusc	2.16	0.00	2.17	0.14	0.00	0.00	2.16
Cereals, Cereal Preprtns.	1.72	1.14	1.35	0.76	0.82	1.05	1.72
Vegetables and Fruit	56.02	68.23	65.17	71.41	73.44	73.23	56.02
Sugar, Sugar Preprtns., Honey	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coffee, Tea, Cocoa, Spices	0.19	0.30	0.46	0.15	1.13	0.28	0.19
Animal Feed Stuff	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Misc. Edible Products etc.	0.01	0.01	0.01	0.00	0.01	0.01	0.01

Note: Revealed comparative advantages are highlighted in bold.

Table 2: RCA^2

Commodity	2000	2001	2002	2003	2004	2005	2006
Dominica							
Live Animals	-1.00	1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Meat, Meat Preprtns.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Dairy Products, Bird Eggs	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Fish, Crustaceans, Mollusc	-1.00	-1.00	-0.99	-0.97	-1.00	-1.00	-1.00
Cereals, Cereal Preprtns.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Vegetables and Fruit	0.93	0.89	0.89	0.85	0.90	0.88	0.84
Sugar, Sugar Preprtns., Honey	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Coffee, Tea, Cocoa, Spices	-0.11	0.26	0.26	0.51	0.10	0.54	0.42
Animal Feed Stuff	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Misc. Edible Products etc.	0.70	0.74	0.82	0.69	0.41	0.51	0.48
Grenada							
Live Animals	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Meat, Meat Preprtns.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Dairy Products, Bird Eggs	-0.99	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Fish, Crustaceans, Mollusc	0.06	-0.13	-0.46	0.25	0.74	0.82	0.76
Cereals, Cereal Preprtns.	-0.96	-1.00	-1.00	-0.97	-1.00	-0.96	-1.00
Vegetables and Fruit	-0.42	-0.61	-0.31	-0.65	-0.52	-0.98	-0.88
Sugar, Sugar Preprtns., Honey	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Coffee, Tea, Cocoa, Spices	0.90	0.98	0.85	0.97	0.98	0.95	0.80
Animal Feed Stuff	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Misc. Edible Products etc.	-1.00	-1.00	-1.00	-0.91	-0.95	-1.00	-1.00
St. Kitts and Nevis							
Live Animals	0.65	0.70	-1.00	-1.00	-1.00	-1.00	-1.00
Meat, Meat Preprtns.	-0.94	-0.99	-0.97	-0.99	-0.99	-1.00	-1.00
Dairy Products, Bird Eggs	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Fish, Crustaceans, Mollusc	-0.88	-0.97	-0.94	0.01	-0.16	0.28	0.63
Cereals, Cereal Preprtns.	-0.99	-0.99	-1.00	-0.98	-1.00	-1.00	-0.92
Vegetables and Fruit	-1.00	-0.98	-1.00	-1.00	-0.98	-1.00	-1.00
Sugar, Sugar Preprtns., Honey	0.80	0.85	0.90	0.86	0.87	-1.00	-1.00
Coffee, Tea, Cocoa, Spices	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-0.66
Animal Feed Stuff	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Misc. Edible Products etc.	-0.94	-0.97	-0.96	-0.96	-1.00	-1.00	-0.97

St. Lucia							
Live Animals	-1.00	-1.00	-1.00	1.00	-0.64	-0.41	0.28
Meat, Meat Preprtns.	-1.00	-1.00	-0.98	-1.00	-1.00	-1.00	-1.00
Dairy Products, Bird Eggs	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Fish, Crustaceans, Mollusc	-1.00	-1.00	-0.97	-1.00	-1.00	-1.00	-1.00
Cereals, Cereal Preprtns.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Vegetables and Fruit	0.89	0.90	0.87	0.81	0.90	0.86	0.83
Sugar, Sugar Preprtns., Honey	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Coffee, Tea, Cocoa, Spices	-0.99	-0.90	-0.53	-0.67	-0.68	-0.86	-0.73
Animal Feed Stuff	-1.00	-1.00	-1.00	-1.00	-0.91	-1.00	-1.00
Misc. Edible Products etc.	-0.80	-0.79	-0.88	-0.82	-0.74	-0.87	-0.74
St. Vincent and the Grenadines							
Live Animals	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Meat, Meat Preprtns.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Dairy Products, Bird Eggs	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Fish, Crustaceans, Mollusc	0.27	-0.20	-1.00	-0.02	-0.89	-1.00	-1.00
Cereals, Cereal Preprtns.	-0.57	-0.26	-0.52	-0.58	-0.77	-0.80	-0.81
Vegetables and Fruit	0.95	0.93	0.93	0.91	0.92	0.89	0.86
Sugar, Sugar Preprtns., Honey	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Coffee, Tea, Cocoa, Spices	-0.31	-0.82	-0.57	-0.51	-0.83	-0.34	-0.78
Animal Feed Stuff	-1.00	-1.00	-1.00	-0.97	-1.00	-1.00	-1.00
Misc. Edible Products etc.	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00

Note: Revealed comparative advantages are highlighted in bold.

Table 3: RCA³

Commodity	2000	2001	2002	2003	2004	2005	2006
Dominica							
Live Animals	0.00	0.01	-0.01	-0.01	0.00	-0.01	0.00
Meat, Meat Preprtns.	-3.67	-2.82	-5.94	-5.30	-5.73	-5.56	-5.12
Dairy Products, Bird Eggs	-14.99	-11.59	-13.75	-14.90	-10.93	-11.74	-15.26
Fish, Crustaceans, Mollusc	-2.87	-1.38	-1.48	-0.48	-0.51	-0.75	-0.77
Cereals, Cereal Preprtns.	-2.97	-1.94	-2.71	-1.90	-2.23	-2.43	-3.30
Vegetables and Fruit	58.65	53.94	51.43	45.32	54.53	52.92	56.00
Sugar, Sugar Preprtns., Honey	-15.95	-13.51	-13.91	-13.77	-9.88	-13.39	-10.63
Coffee, Tea, Cocoa, Spices	0.42	1.83	1.33	1.60	0.80	1.29	1.22
Animal Feed Stuff	0.00	-0.10	-0.04	-0.02	-0.02	0.00	0.00
Misc. Edible Products etc.	13.98	13.16	21.41	15.42	5.54	4.49	7.18
Grenada							
Live Animals	-0.12	0.00	0.00	0.00	0.00	-0.05	0.00
Meat, Meat Preprtns.	-6.05	-3.31	0.00	-2.75	-2.96	-3.09	-3.00
Dairy Products, Bird Eggs	-10.41	-12.76	-4.54	-6.81	-10.39	-7.39	-12.02
Fish, Crustaceans, Mollusc	2.09	1.29	3.18	3.59	17.34	34.49	51.06
Cereals, Cereal Preprtns.	-2.63	-2.83	-1.20	-2.17	-2.67	-2.28	-4.18
Vegetables and Fruit	-0.34	-1.36	0.31	-0.17	0.00	-1.34	0.24
Sugar, Sugar Preprtns., Honey	-16.15	-16.31	-11.92	-11.27	-12.79	-9.75	-19.30
Coffee, Tea, Cocoa, Spices	100.35	139.06	184.80	145.04	172.26	172.66	143.04
Animal Feed Stuff	0.00	-0.02	-1.22	0.00	0.00	0.00	-0.01
Misc. Edible Products etc.	-4.17	-5.92	-4.08	-1.85	-2.74	-2.77	-6.82
St. Kitts and Nevis							
Live Animals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meat, Meat Preprtns.	0.01	0.03	0.00	0.00	0.00	0.00	0.00
Dairy Products, Bird Eggs	-10.58	-6.54	-10.70	-9.11	-9.55	-11.54	-14.79
Fish, Crustaceans, Mollusc	-6.93	-1.75	-2.15	-1.81	-2.17	-3.11	-3.12
Cereals, Cereal Preprtns.	-1.23	-0.81	-0.73	0.36	0.17	9.64	17.31
Vegetables and Fruit	-1.65	-1.03	-1.04	-1.06	-1.06	-1.83	-0.20
Sugar, Sugar Preprtns., Honey	-10.49	-7.58	-10.36	-8.43	-5.36	-9.20	-13.81
Coffee, Tea, Cocoa, Spices	199.58	206.05	212.31	183.03	199.71	-3.87	-6.80
Animal Feed Stuff	-1.31	-1.17	-1.50	-0.74	-0.58	-0.56	3.70
Misc. Edible Products etc.	-6.93	-4.28	-4.94	-5.45	-5.63	-8.43	-7.35
St. Lucia							
Live Animals	-0.46	0.00	0.00	0.02	0.00	0.00	0.02
Meat, Meat Preprtns.	-4.57	-4.65	-4.15	-4.10	-6.23	-4.54	-5.01
Dairy Products, Bird Eggs	-10.14	-9.43	-5.12	-4.73	-4.63	-5.53	-5.89
Fish, Crustaceans, Mollusc	-1.97	-2.02	-1.82	-1.44	-1.68	-1.52	-1.08
Cereals, Cereal Preprtns.	-3.91	-4.19	-2.69	-2.90	-3.39	-3.99	-4.51
Vegetables and Fruit	74.49	68.25	60.26	51.43	62.85	64.47	61.38
Sugar, Sugar Preprtns., Honey	-9.66	-11.17	-6.94	-5.80	-5.72	-5.73	-9.23
Coffee, Tea, Cocoa, Spices	-1.55	-1.29	-0.09	-0.12	-0.23	-0.71	-0.27
Animal Feed Stuff	-0.07	-0.08	-0.05	-0.08	-0.04	-0.10	-0.03

Misc. Edible Products etc.	-2.41	-4.16	-5.20	-2.41	-1.80	-4.26	-2.61
St. Vincent and the Grenadines							
Live Animals	-0.21	0.00	0.00	0.00	0.00	0.00	-0.72
Meat, Meat Preprtns.	-8.44	-4.48	-8.86	-9.60	-9.67	-11.77	-11.68
Dairy Products, Bird Eggs	-11.84	-5.12	-7.34	-9.81	-7.61	-9.00	-9.03
Fish, Crustaceans, Mollusc	4.90	1.40	-1.24	1.63	-0.32	-0.54	-0.33
Cereals, Cereal Preprtns.	-1.93	0.15	-1.16	-1.31	-1.49	-1.67	-1.97
Vegetables and Fruit	59.78	55.28	67.15	64.05	70.56	72.40	72.05
Sugar, Sugar Preprtns., Honey	-18.84	-10.77	-14.07	-13.12	-11.31	-11.89	-19.52
Coffee, Tea, Cocoa, Spices	-0.06	-0.44	-0.17	-0.01	-0.32	0.58	-0.23
Animal Feed Stuff	-0.01	-0.01	-0.17	-0.27	-0.79	-0.17	0.00
Misc. Edible Products etc.	-7.96	-3.95	-4.05	-5.05	-3.66	-4.85	-5.32

Note: Revealed comparative advantages are highlighted in bold.

Table 4: Consistency of Revealed Comparative Advantage

	2000		2001		2002		2003		2004	2005	2006
<i>Cardinal</i>	RCA_{ij}	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^2	RCA_{ij}^2
RCA_{ij}^1	0.37	0.99	0.37	0.99	0.43	0.99	0.36	0.99	0.44	0.72	0.72
RCA_{ij}^2		0.39		0.39		0.43		0.38			
<i>Ordinal</i>	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^2	RCA_{ij}^2
RCA_{ij}^1	0.80	0.52	0.78	0.55	0.81	0.42	0.69	0.54	0.71	0.80	0.75
RCA_{ij}^2		0.49		0.56		0.41		0.52			
<i>Dichotomous</i>	RCA_{ij}	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^3	RCA_{ij}^2	RCA_{ij}^2	RCA_{ij}^2
RCA_{ij}^1	0.73	0.94	0.55	0.89	0.66	0.94	0.58	0.77	0.79	0.79	0.55
RCA_{ij}^2		0.68		0.59		0.71		0.70			

Note: Correlations which indicate consistency between a pair of indices are highlighted in bold.

As noted previously, the RCA indices in Tables 1-3 were constructed employing SITC data at the two-digit level. Given this level of aggregation, there is an increased likelihood of bias within RCA_{ij}^1 , since the performance of underlying sub-categories may over- or understate the performance of the broad sector (Vollrath, 1991). Furthermore, it is important to consider the commodity protocols, particularly sugar and banana arrangements, which exist in the region and may influence the finding of comparative advantage at higher levels of aggregation.

To address these issues, we calculate RCA indices at the four-digit level for the categories which showed revealed comparative advantage at the two-digit level. Since this procedure was implemented to

determine the possible impact preferences have on export dynamics, only the original Balassa Index (RCA^1_{ij}) was employed in this instance.

The four-digit indices (not shown due to space constraints) indicated that, as expected, within the *Fruits and Vegetables* category in which the region holds a broad comparative advantage, bananas appear to have the largest advantage, with average RCA indices greater than 1000 in St. Vincent and the Grenadines, St. Lucia and Dominica. With respect to the RCAs in *Coffee, Tea Cocoa, Spices* and *Miscellaneous Edible Products* at the two-digit level, the corresponding four-digit indices reveal that the underlying RCA exists primarily in the *Spices, ex. Pepper and Pimento* (St. Vincent and the Grenadines, Dominica, Grenada and St. Lucia) sub-category. The four-digit indices also indicate regional comparative advantages in *Vegetable Products, Roots and Tubers* (St. Vincent and the Grenadines and Dominica).

Among the countries, Dominica appears to display a comparative advantage in the largest number of sub-categories, with average revealed advantages for the period in 15 commodity groups, followed by St Vincent and Grenadines (10), Grenada (7), St. Kitts and Nevis (7) and St. Lucia (6).

The comparisons at the cross-country level reveal that each of the five territories has unique comparative advantages. In the case of Dominica, after bananas, the next greatest average comparative advantage over the period lie in the *Vegetable Products, Roots and Tubers* sub-category followed by the *Other Citrus, Fresh, Dried* product group while significant, but less pronounced comparative advantages also existed in *Sauce, Seasoning, Condiments* and *Spices, excluding Pepper, Pimento* groups. St. Vincent's greatest advantage lies in banana exports, followed by *Vegetable Products, Roots and Tubers* and relatively modest advantages in *Rice, Milled, Semi-milled, Crustaceans other than Frozen* and *Rice, husked but not further prepared*. Grenada's major advantages exist in the exports of *Spices, excluding Pepper, Pimento* and *Fish, Fresh, Chilled, Whole products*. When compared to the EU, Saint Kitts and Nevis' major export advantage is in *Sugars, Beet or Cane, Raw* followed by a much smaller advantage in *Frozen Crustaceans*.

Finally, comparing industries across countries revealed that while four of the five countries displayed comparative advantage in banana exports vis-à-vis the EU-15, St. Lucia had the largest advantage, followed by St. Vincent, Dominica and Grenada, respectively. The countries also appear to share a comparative advantage in *Spices, excluding Pepper, Pimento* exports, with Grenada holding by far the largest advantage, followed by Dominica, St. Vincent and the Grenadines and St. Lucia. Comparative advantage also exists in *Fruit, Fresh, Dried*, in three countries and is strongest in Dominica. Finally, Grenada is revealed to have the strongest advantage among the territories in seafood exports, with strong advantages in *Fish, Fresh, Chilled, Whole* and *Fish, Frozen excluding Fillets* categories. Both Dominica and St. Vincent display RCAs in *Vegetable Products, Roots and Tubers* with the stronger advantage in the former country. Interestingly, despite the existence of preferential arrangements for sugar under the Sugar Protocol, only one country – St. Kitts & Nevis – has a comparative advantage in exporting sugar.

These variations at the four-digit level appear to confirm the problem put forward by Vollrath regarding the use of highly aggregated indices for calculating comparative advantage. The RCA^1_{ij} indices based on the two-digit vegetables and fruit category, for example, indicated some degree of comparative advantage in all of the sample countries except St. Kitts and Nevis, while the corresponding four-digit indices revealed that the advantage was restricted to, at most, 10 of the 24 sub-categories as in the case of Dominica, just four in St Vincent and Grenadines and two each in Grenada and St. Lucia, respectively. As such, it appears to be more useful to employ less aggregated data when examining specialisation since cumulative data belies the underlying dynamics of the indices.

POLICY IMPLICATIONS AND CONCLUSION

The preceding study computed revealed comparative advantage for agri-food industries within the OECS sub-region vis-à-vis the EU-15 at both the two and four-digit levels and found that there are similarities in specialisation in major product groups, but notable variation at more dis-aggregated levels. These findings provide support for previous research (See Lewis and Webster, 2001), indicating that while there are some

similarities in advantages across member states, the degree of specialisation and the extent of competitiveness vary between countries and industries. In essence, the variation in comparative advantages across countries in the OECS suggests that some countries are significantly less competitive in certain agri-food exports than others in the sub-region and are essentially competing with these more competitive sub-regional counterparts for market share within the EU. Thus, the results of this research have implications for OECS countries and specific industries that are both competitive and uncompetitive.

Arguably for the former, countries which display sizeable comparative advantages in specific industries (such as Grenada holds in *Spices, excluding Pepper, Pimento* exports) *vis-à-vis* the EU, should not only continue to produce and promote these products to Europe but, perhaps more importantly, as they face increased competition for the EU market, these countries will have to proactively strengthen and enhance these industries. This will require clearly identifying the factors responsible for the revealed comparative advantages and thus highlights the need for further research in this area. Given the relative usefulness of using disaggregated data, there is also a need for further research (perhaps at the six-digit level) to identify even more clearly those specific commodities in which countries are most competitive.

At the same time, those countries which were revealed to be uncompetitive in specific industries will face increasingly intense challenges to sustain employment and profitability in those industries. This is of particular relevance for those countries which export goods under additional preferential arrangements (such as the Banana and Sugar Protocols) but which remain uncompetitive in those industries, as they are at even greater risk as these preferences are phased out. As such, policymakers must consider finding new ways to improve efficiencies in those industries or finding niche markets for their products. Conversely, given the limited resources within the region, it may be more efficient for countries to redirect their resources toward maintaining and strengthening those industries in which they have the strongest comparative advantages in the region and away from their uncompetitive industries.

However, these decisions are particularly complex in the OECS sub-region since, despite some contractions in the contribution of agricultural exports to the EU to total EU exports, there is still a relative dependence on these industries for employment and foreign exchange earnings. This means that there will be significant financial and social costs associated with any adjustments to the agricultural sectors across the region. Therefore, it is critical that developmental and technical support, such as the transitional component of the CARIFORUM-EU EPA and the developmental support, to which the EU has committed, be prioritised to ensure that OECS territories are not left worse off by the new trading arrangements.

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THE TECHNOLOGY OF LEADERSHIP WANTED: EXTREME GLOBAL LEADERS

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ABSTRACT

Leadership as one of the most important technologies invented over the past several centuries – a social technology that provides the tools, methods, and processes necessary to mobilize human capability to productive ends. But what is required past the basic definitions of leadership as a technology? In an ever-changing global marketplace, those who lead across boundaries and borders are required to be extreme sports Team Captains – guiding the organization through unfamiliar and turbulent environments, while maximizing the functional, geographical, and cultural diversity of their teams to create and deploy winning strategies that will change the game forever. In today’s multicultural, dynamic world, understanding this new breed of Extreme Global Leader is critical to achieving high performance and sustainable growth in every organization. In examining what is required to be considered an Extreme Global Leader, we link the inspirational successes from the past and present, into capabilities for the future.

INTRODUCTION

How do we define technology? Leadership? How do these definitions change as we incorporate the ever-changing and emerging field of globalization? How can we better understand the link between technology and leadership, in a potentially non-traditional manner? Why is this important and how can we connect great leaders of the past and present to what is required of the “Extreme Global Leader” of the rapidly approaching future? In this manuscript, I will seek answers to these questions both in regards to the past and present, as well as addressing what those aspiring to be “Global Extreme Leaders” will need to do to successfully achieve their stated objectives.

LEADERSHIP AS A TECHNOLOGY

The definitions of “technology” and “leadership” have not changed since 1859 (Merriam-Webster Online Dictionary) and must cause us to reflect upon the value of these words in the modern day workplace. If leadership is indeed considered one of the most important technologies invented over the past several centuries, then how can we leverage this technology to help us meet the leadership challenges of today and tomorrow? How will we forge a future for this extraordinarily important technology called “Leadership” that will create better leaders, better organizations, better products and services - that will, indeed, lead to a better world? I submit that we can evolve leadership through the understanding of the concept of leadership as a form of technology, while employing examples of great leaders – past and present – to provide us with key leadership insights that will guide us in identifying and leveraging critical concepts that will be central to the evolution of leadership as a technology and the development of the “Extreme Global Leaders”.

WHAT IS AN EXTREME GLOBAL LEADER?

Are you an extreme sports fanatic? Do you appreciate the risk and intense talent involved in the earth-defying feats of these intense athletes? Global leadership today is not so different. It requires leaders to be like extreme

sports Team Captains – they must guide the organization through unfamiliar and turbulent environments, while maximizing the functional, geographical, and cultural diversity of their teams to create and deploy a winning strategy that will change the game forever. In today’s multicultural, dynamic world, understanding this new breed of Extreme Global Team Captain is critical to achieving high performance and sustainable growth in every organization.

Global business is a way of life for most of us. Despite this knowledge, we continue to operate on old paradigms, outdated business models, ineffective training methods, and disparate policies and procedures. We continue to fail to generate **Extreme Global Leaders** – those fearless few who have the courage and commitment to identify and deploy game-changing solutions on a global basis, creating exciting new products and services – as well as memorable client/partner/team/organizational experiences – spanning geographies and cultures.

What makes a global leader Extreme? I submit that there is a possibility of transformational leadership that incorporates all of the above, but also transcends the accepted leadership characteristics to create a new global leader that is emotionally, politically, and culturally intelligent, but also a global team captain who has the courage to step into his/her impossible future in order to win the great game of business.

EXTREME GLOBAL LEADER 101

There are nine essential lessons that today’s leaders must internalize and deploy in order to evolve into tomorrow’s Extreme Global Leaders: 1) Generate Extreme Networks 2) Recruit An Extreme Coach 3) Understand...The Impossible Is Possible 4) Draft A Winning Gameplan 5) Master The Political Chessboard 6) Build Extreme Teams 7) Mentor Your Mavericks 8) Develop An Execution Culture 9) Focus On The Scoreboard.

In the application of the above principles, we can learn from those extreme leaders who have come before us, as well as from those who have achieved extreme success today. Inspirational successes from the past and present can provide insight into what we already know - life in this world continues at the same manic, meaningless pace - except for leaders who take a stand so that a difference can be made and people can be mobilized to bring about meaningful change.

Generate Extreme Networks

Any highly successful executive will tell you that they achieved their success through the people that helped them along the way, if they are honest and not too caught up in themselves. The real secret to networking is taking the focus away from yourself, and finding ways to make other people successful. It means you have to be dedicated not only to your own success, but willing and able to put other people first. The key to networking is reaching out to people with a sincere desire to make a difference in their lives (Ferrazzi). When people perceive your authenticity, they will respond in kind with a sincere desire to make a difference in your life. You can’t do it alone, so don’t be reluctant to ask for help.

Sir Richard Branson is an iconic and legendary figure in global business. His Virgin companies span the globe, while his penchant for brand domination and sense of adventure tell a story of an intriguing and thought provoking life filled with high risk tactics that push the boundaries of the possible, and an all encompassing motivation to be of service to others. The primary purpose that drives all of Richard Branson’s choices, decisions, behaviors and actions is the act of **Making a Difference in this World**. His network of personal influence and contacts is legendary. In 2007, due to his enormous network and influence, Branson partnered with a select group of world leaders to work together to solve difficult global challenges across the globe. One challenge at a time, *The Elders* use their collective skills to catalyze rapid results and peaceful resolutions to long-standing global challenges, articulate new approaches to global issues, and share wisdom by helping to connect voices all over the world (Sicinski). Sir Richard Branson has the wisdom and connectivity to leverage his global network to extend its benefits throughout the world!

Once you are able to connect with others and build trusting relationships, ask for help in becoming the best at what you do. You will soon realize Extreme Networking as a powerful tool in life.

Recruit An Extreme Coach

Like Tiger Woods or not, one must appreciate his talent, dedication, and contribution to the game of golf. The truth is, Tiger Woods is a product of exceptional talent and superior coaching. Tiger Woods was a very intelligent young man early on, when he recognized that without great coaching he would never be great. As a result, he hired an Extreme Coach – Butch Harmon. Tiger Woods and Butch Harmon have worked together day after day, both on the practice field and on the playing field, relentlessly pursuing a *game-changing* future. The reason the partnership between extreme athlete and extreme coach has been so powerful is because both have taken their goals and their relationship extremely seriously, spending hours working toward an extreme goal - exceeding Jack Nicklaus' number of record wins at the Masters (Hargrove).

Despite nightmares of remedial coaching for the person hoping to avoid a pink slip, or some vision of coaching as a transcendental inner realization, great business leaders NEED great coaches. Despite the myths, Executive Coaching is about:

- Delivering exceptional business results
- Moving from good to great
- Achieving far beyond current capacity
- Unleashing extreme potential

In both sports and business, extreme executives/athletes are required to understand the strategies of the sport, while playing within the rules and regulations. Being Extreme means “off the charts” excellence. Extreme Leaders and their coaches continually critique performance and technique, as well as comprehensively observe their opponents to learn the tendencies and weaknesses that will provide them competitive advantage. Coaches push bodies and minds to their limit during both practice and play (Bureau of Labor Statistics). Every successful executive understands the value and necessity of an Extreme Coach – someone who will push them beyond their current capacity and stand in their greatness even when they cannot. For an Extreme Global Leader, recruiting an Extreme Coach is critical to winning at the great game of business and achieving *game-changing* results.

A key role of the Extreme Coach is to be a strategic and critical thinking partner – strategically assessing next steps, evaluating ongoing performance, pushing to exceedingly high levels of excellence, and facilitating ongoing growth and superior results. However, the most important role of the Coach is that of ensuring the leader is keenly aware of his own potential and what is possible, rather than what is impossible.

Extreme Coaches, in both sport and business, are critical to success and have two unconditional things in common: 1) they are true trusted advisors to their athletes/executives and 2) they are all relentlessly results-oriented. If an Extreme Leader cannot discern these values in a Coach, chances are the Coach is not Extreme... and may not facilitate winning the “Big Game”.

Understand... The Impossible Is Possible

We are living in an age where the disparity between what you can imagine and what you can achieve has never been less significant. Creating a *game-changing* future, for yourself and your organization, is a life altering, transformational experience. In order to get out of the proverbial box, a leader must think in ways s/he has never thought before, and must significantly change who s/he is in order to designate where the organization will go. A Global Extreme Leader must understand one key concept: The Impossible Is Possible. An enormous challenge to be sure, however by leveraging a few key principles, it is achievable:

- 1) Understand and leverage your potential - be open to personal transformation.
- 2) Work backward from your imagination, rather than forward from your past.

Guy Laliberté, Creator and CEO of Cirque du Soleil, is a current day Extreme Leader who created a *game-changing* future. He rethought the circus, removing the animal acts and focusing on the adult audience. As a result, he was able to create a new and innovative version of the “circus” that provides an unforgettable entertainment experience for people worldwide. He has produced more revenue in ten years than Barnum and Bailey has in the last 100 years. Now that is a *game-changing* future!

- 3) Once you are secure in your game-changing future, create the gameplan backward from your imagination to make the vision a reality.
- 4) Ask yourself some revealing questions in your quest for a game-changing future:

- A. What is missing in your industry that would truly revolutionize the products/services/processes/etc.?
- B. What will take your company/domain from status quo to breakthrough?
- C. Knowing your customers, and understanding the need for continuous change: What is an enormous strategic opportunity? What would change your business *and* their business forever? What is missing that, if provided, would truly make a difference?
- D. What are you so passionate about that you would be willing to transform not only your company, but yourself?

Creating a game-changing future is not just about self-satisfaction and self-empowerment, it is about inspiring and empowering others to also be everything they can be – it is all about unleashing human potential.

Create A Winning Gameplan

The vision of the game-changing future creates an exhilarating picture of the destination. The *gameplan* (strategy) describes the journey - how you will win The Big Game. No *game-changing* future can be achieved without a strategy. It provides a platform for everyone to stand on, but the gameplan is the owner's box where everyone can see how it is possible to win The Big Game, and how critical their role is to the achievement of the *game-changing* future.

His people needed a leader - he gave them a champion. Nelson Mandela's release from prison, and his ascent as the democratically elected President of South Africa, represented a radical change in the country. Mandela believed he could bring his people together through the universal language of sport and he crafted a plan to rally his deeply divided country. He knew if the Springboks, South Africa's national rugby team, could gain the support of non-white South Africans and succeed in the upcoming World Cup, the country would be unified and inspired. He had his *game-changing* future defined as creating a united South Africa and created a strategic gameplan to bring the country together. He negotiated the support of the Springboks and its captain, Francois Pienaar, to achieve his unrealistic goal of the Springboks winning the World Cup - even in the face of such rugby powerhouses the All-Blacks representing New Zealand. Mandela inspired Pienaar to lead by example, much like Mandela had himself, and ultimately they made unlikely history together – The Springboks became the 1995 Rugby World Cup champions and served as a uniting force across South Africa. (Carlin)

The gameplan, as well as a practical document, is a strategic tool. It is a mechanism for Extreme Global Leaders to rally people to take a stand for an exciting, *game-changing* future, just as Mandela did. It is an enabler for people to have the capacity to share in the vision by delineating roles and responsibilities, providing guiding principles, as well as documenting methodologies and actions in one place - but perhaps most importantly, celebrating the achievement of key milestones.

Master The Political Chessboard

A keen comprehension of organizational politics is absolutely essential for leadership to maneuver the company towards its' goals. Leaders use political leverage to promote their organizational interests. The Extreme Global Leader knows that in order to realize a *game-changing* future, s/he will need more than just a great gameplan – s/he must master the political chessboard. If a leader engages support from above, laterally, and below, s/he is likely to succeed. This equates to political influence – and to influence others requires building relationships of trust and persuading others to follow. That is what politics is about.

Abraham Lincoln, sixteenth President of the United States, cultivated friendships everywhere he went, and with anyone who cared to reach out to him. He was well known for remaining available to the people after he became President (Thomas). Yet, he never waited for people to come to him. Historically, he was known for his ability to reach out to those that could support his causes and enlist their support. A superb politician, he persuaded the people with reasoned word and thoughtful deed to look to him for leadership (McGranahan). Lincoln was authentic, genuine, always in service to others, and never kept score. We can learn a lot from Abe Lincoln – after all, in no small part due to his consistent engagement with people of all complements, Abraham Lincoln had the friendship and support of a nation. Despite leading through the most turbulent of times, he was first and foremost

a politician who could master the chessboard.

In order to master the chessboard, Extreme Global Leaders need to take a strategic approach to politics and should employ the following, as appropriate:

- 1) Spend time with opponents
- 2) Never take anything personally
- 3) Constantly reframe
- 4) Leverage power dynamics
- 5) Build on mutually beneficial interlocking relationships
- 6) Focus on interests, not positions

Leaders need to inspire people into action by creating clarity and unity of purpose and build synergies through organizational values. We can leverage political skills to manipulate others, or to influence them to achieve more than they thought possible – which one will accomplish more and move the organization forward faster?

Build Extreme Teams

Global leaders everywhere are now realizing how critical global teams are to future competitiveness and overall productivity. The power of global teams to respond expeditiously to corporate challenges has become a key component to a company's ultimate ability to succeed in demanding and constantly evolving environments. The reality is that global teams generally have more talent and potential than other types of teams by sheer force of their diversity. Yet this potential is often squandered because of an innate inability of both the team and the organization to harness the power of the global team (Marquardt).

As you strive to become an Extreme Global Leader, you will come to realize that people, across boundaries and borders, will determine whether or not you win at the great game of business. Made up of *people*, global teams are the modus operandi for getting things done in organizations – and within global organizations there is a critical requirement for global teams. Alignment emerges when, despite culturally diverse backgrounds, a group of people understands the unique value of each player and leverages that value to function as a cohesive whole (Senge) – it is the “X Factor” of global teams.

Although there are many points on which to criticize Napoleon Bonaparte, early 19th century military and political leader of France, one of the most important aspects of Napoleon's personality and its effect on his abilities as a military commander was his genius to align and inspire others. Napoleon was known to have said, “The secret of war lies in the communications”. He understood that in order to move forward, a leader must find ways to align and engage his troops. Napoleon was eminently aware of the impact of alignment and morale on modern warfare. He believed in the maxim that “morale is to the physical as three is to one”, and emphasized the value of alignment while in exile on St Helena: “Alignment, together with moral force, rather than numbers, decides victory.” That Napoleon was so successful in obtaining unquestionable obedience from his rank and file was a direct result of his ability to maintain alignment and loyalty from his forces (Chambers).

Exceptional team development is the process of aligning and developing the capacity of the team to create the winning results. The bottom line is that shared vision and talent are not enough to create an Extreme Global Team. Exceptional sports team champions have talent and a shared vision, but what really matters is that the team knows how to play **together** – Extreme Teams in organizations are no different.

Mentor Your Mavericks

Mentors represent knowledge, reflection, insight, and wisdom. They offer understanding, compassion, strategy, and good advice. They engender trust, issue challenges, provide encouragement, and offer a positive reinforcement. It is the Extreme Global Leaders role to mentor those brilliant mavericks that global business attracts. Mavericks consistently inquire into how they can do something radically different. They want to think about the next big idea and make it happen. Mavericks want to make a difference, discover how to re-create and re-energize their team, division, organization, and their world. They are Extreme Leaders in the making - you want Mavericks, indeed you NEED them.

In his book, *Leading The Revolution*, Gary Hamel warns, “Most people in an industry are blind in the same way. They're all paying attention to the same things, and not paying attention to the same things” (Taylor). Mavericks are just the opposite, they understand that strategy and product/service development can no longer be about replication, competing from virtually identical playbooks.

A transformational approach to managing is required. A single maverick can be challenging, a team of global

mavericks could be downright intimidating. Mavericks are motivated by their ability to innovate, and are extremely confident by nature. Appreciating and recognizing the possibilities mavericks bring to an organization is extremely important. Always keep in mind what Earl Bakken says about these unique individuals: “You want to have some mavericks who are out ahead 5 or 6 years. If you don’t have them, you better grow them ...”(Taylor).

Margaret Thatcher was a keen proponent of mentoring mavericks. Lady Thatcher appreciated Sir Alan Walter’s robust approach to economics, his forthright manner, and his ability to fight to present his own strong points of view. Their relationship was based on mutual trust and respect. A statement from Maggie Thatcher read, “Alan Walters was the best economic adviser any prime minister ever had – radical, fearless, and creative” (Michaels). Although Sir Walter could be difficult, radical, and unconventional, Margaret Thatcher believed in him and saw the potential he offered Great Britain with his personal brand of economic genius. Because Lady Thatcher had the patience to work with a radical (and sometime out of line) economic innovator and the insight to perceive his genius, Lady Thatcher’s regime is credited the financial policies that lay the path for the sustained economic growth of the 1990s. Although he was unorthodox, and not widely popular, Margaret Thatcher successfully mentored her maverick, which resulted in widespread growth and prosperity for Britain for the entirety of her ten years as Prime Minister of Britain.

Extreme leaders neither bury brilliant mavericks, nor let them venture too far off on their own – they mentor them in a purposeful and meaningful context. With an enormous amount of imagination and patience, Extreme Global Leaders accommodate their thinkers on a global basis and give them the support their brilliance deserves. The challenge in leading mavericks is great, but so, too, are the potential rewards.

Develop A Culture Of Execution

One key way to achieve ongoing innovation and global results is through the creation of an execution culture. Every leader has an opportunity to accelerate progress in their global organization through the deployment of Rapid Result Initiatives (RRI’s) that can be used to increase current performance, strengthen collaboration, facilitate innovation, and demonstrate success in the process of executing a winning gameplan. RRI’s are small, high leverage wins that build the capacity for large-scale change. Sun Tzu, a great Chinese military general once said, “Opportunities multiply as they are seized.”

The Extreme Global Leader leverages opportunities to create RRI’s in which culturally disparate team members can successfully step outside their familiar frameworks to create a culture of execution. In doing so, global team members gain the freedom to think in new ways, and to forge a new culture based on common goals and values. As they begin to understand success as a global unit, they start to believe and see the *game-changing* future as entirely possible – they are suddenly vested in winning the Big Game.

Mark Shuttleworth is an African entrepreneur with a love of technology, innovation, change and space flight. Believing that entrepreneurs in South Africa have the potential to start businesses with global impact, Mark formed a new venture capital team called HBD (Here Be Dragons). HBD seeks to invest in innovative companies that are based in South Africa but have the potential to serve a global marketplace. HBD has invested in several South African companies in a variety of sectors, on the basis that RRI’s will drive innovation not only in South Africa, but across the globe. In the hope that risk capital can be as important for social development as it is for the economy, Mark has also created a non-profit organization that supports social innovation in education in Africa. The Shuttleworth Foundation funds projects that have the potential to bring about dramatic improvements to some aspect of the education system and hopes to improve both the quality and the reach of education in Africa. The Foundation has funded Rapid Result Initiatives from teachers, small businesses and private individuals. The Foundation is a catalyst for accelerated change in civil society (Shuttleworth).

Extreme Global Leaders calculate their steps and fully understand what they have and how to use it to continually move toward their *game-changing* future. Radical innovators tend to view their organizations as a series of RRI’s leading to the Big Game. Mark Shuttleworth is an expert at launching RRI’s as a means to move toward his ultimate goal of making a difference in the world – both philanthropically and from a business perspective.

Focus On The Scoreboard

The most important quality of an Extreme Global Leader, is extraordinary performance – with a solid reputation

for achieving consistent, extraordinary results across boundaries and borders. If a leader takes his focus off the scoreboard and becomes fixated on a single aspect of the game, the corresponding positions on the field are compromised. As positions go unnoticed and players go un-coached, performance in the overall game will decline. The scoreboard represents both success and defeat in the individual game. It is important to win the game. The game is one element of the entire season, which if played well on a recurring basis, will result in the opportunity to win the championship (a *game-changing* future). However, if there is little focus on the scoreboard of each game, it can be devastating to the chances of winning The Big Game.

Be exceptionally clear as to which goals and objectives are important to the short game, as well as the long game in regards to the scoreboard. The scoreboard is where recurring results are shown, where both team and individual performance is recorded, and how we judge how the game is going and where the team is likely to go. It is the tool that measures who is winning or losing and, ultimately, who won and who lost!

The challenge comes in setting goals for a *game-changing* future that are in alignment with day-to-day operations. It is critical to maintain focus on two scoreboards consecutively – 1) the daily metrics and requirements and 2) the metrics and requirements for the Big Game. The presence of the scoreboard provides a mechanism by which to judge when it is time to make adjustments based on score and feedback. With no focus on the scoreboard, it is possible to lose track of time and continue playing without the necessary intensity to turn the game around when necessary – thus putting The Big Game at risk.

TECHNOLOGY & THE LEADER

As globalization continues to evolve, and we seek to identify those driving aspects of leadership that transform a common leader into an Extreme Global Leader – those fearless few who have the courage and commitment to identify and deploy *game-changing* solutions on a global basis, creating exciting new products and services – it is critical to understand the differences. Today's global leader embraces enormous complexity in running business operations across boundaries and borders, works with dispersed geographies and disparate cultures, not to mention understands and deploys meaningful metrics across multiple regions. Although complex, it is possible to categorize all of the above leadership characteristics as aspects of technology.

However, as we realize that we need more than basic business management from our global leaders, a non-traditional concept emerges – Leadership as a technology, integrating *art* as a critical component within technology. The elusive Extreme Global Leaders we seek, are keenly aware that leadership is as much about inspiring and motivating *people* from multiple backgrounds and cultures (art), as it is about the technical components of management (technology). The Global Extreme Leader we seek, and find so rarely, has the insight to see possibility, the courage to unleash human potential, the judgment to value accountability, and the intellect to measure results. The link between technology and leadership is being in service to *people* – the Global Extreme Leaders' ability to connect, inspire, and motivate *people* across boundaries and borders to achieve *game-changing* results is exactly what make them *Extremely* critical to the evolution of global business.

I once heard someone say, "Success leaves clues." If you look at successful people, there are clues as to what makes them different. Figuring out the clues is the easy part. The question is...will you do the things you need to do to become an Extreme Global Leader and transform your life? The world desperately needs leaders to step into their greatness and become Extreme. Mediocrity won't change the world - **Wanted: Extreme Global Leaders.**

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ANALYSIS OF THE IMPLEMENTATION OF PERFORMANCE MANAGEMENT SYSTEM IN THE uMTSHEZI LOCAL MUNICIPALITY

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ABSTRACT

UMtshezi Local Municipality has undergone much change since 2000. Although much of the change was to correct imbalances and disparities within the local communities as a result of apartheid, change has been motivated by the National Government's realization that, as with Governments throughout the world, there is a need to modernize all the spheres of Government. Part of this change process at the local government sphere in South Africa has been to ensure that municipalities become more responsive to communities' desires.

The principles for this transformation are contained in the White Paper on the Transformation of the Public Service (1995) and the Batho Pele White Paper (1997). This has informed the Local Government: Municipal Systems Act: Act 32 of 2000 of which chapter six determines that municipalities must establish a performance management system to promote a culture of performance among the political structures and the administration within the municipality. The performance management system must ensure that the municipalities manage their affairs in an economical, effective, efficient and accountable approach.

A literature review contained in this research study indicates that internationally, implementing performance systems at local government level is impacted upon by a number of factors such as the organizational culture of an institution.

This research study, which has been embedded within the performance management reform, describes the impact organizational culture has had on the implementation process of the performance management system at uMtshezi Local Municipality. Interviews were conducted amongst section 57 employees (municipal manager and officials directly accountable to the municipal manager) and those officials directly responsible for the implementation of the performance management within the municipality. Five directors, three councilors and seven ward committee members were also interviewed.

These structured interviews were conducted over four days with the interviewees. The protocols were analyzed and the findings are detailed in two chapters. The findings of the research were that the implementation of the performance management system at uMtshezi Local Municipality has been impacted and affected by conflict between the political and administrative leadership, resulting in non-implementation on council resolutions, the lack of an organizational strategy, poor institutional arrangements and inadequate resource allocation. However, the most important finding was the impact that culture of fear has had on the discharge process. This culture of fear and its impact on the implementation of performance management system is described as the most prevalent of all the findings to have negatively impacted on the implementation progression.

This study ends with recommendations for further research and it is argued that each municipality has its own unique organizational processes. The conclusion is that no typology, as contained in the literature, which can account for the specific impact on the implementation of performance management system at uMtshezi Local Municipality.

INTRODUCTION

The “developmental role” of local government as enshrined in the White Paper on Local government (1998) has brought with it the need for accountability in local government. This is because the local government “developmental role” focuses on municipalities meeting increasing basic needs, maximising economic growth and ensuring sustainable development. As a result, performance management turn out to be a critical managerial tool for purposes of efficiency and accountability in developmental local government with regard to service delivery.

Furthermore Chapter 6 of the Local Government: Municipal Systems Act Number 32 of 2000 determines the importance of measuring performance. It is against this background that this study was conducted in order to evaluate progress made to date in implementing performance management systems in the study area and also draw lessons for improving performance in local governments.

PROBLEM STATEMENT

UMtshezi Local Municipality, in terms of the Local Government: Municipal Systems Act of 2000 (Act 32 of 2000) is required to develop a monitoring mechanism to ensure that services are delivered to the communities speedily and maximise the use of human and financial resources available in the municipality. This requires that the municipality formulate development plans. In implementing development plans the municipality requires the institutional plan to execute the development targets by matching resources to deliverables. However, performance management as a managerial tool is not yet implemented fully in the uMtshezi Local Municipality, which is the study area in the Province of KwaZulu-Natal. The KZN 2005/2006 *CONSOLIDATED ANNUAL MUNICIPAL PERFORMANCE REPORT* indicates that out of 61 municipalities in the KZN province, only 32 municipalities have a functional PMS in place (www.kznlgta.gov.za - accessed on the 26 June 2006).

The reason for PMS to be non-functional in other municipalities is in respect of the development of PMS scorecards, the implementation, the establishment of Performance Audit Committees, as well as reporting. This is elevated by the fact that there are few skilled individuals to formulate PMS and work on PMS Audit committees. Further, Mwita (2002: 44) argues that inter-alia, leadership, personal, team and environmental factors influence performance in the public sector; while Buch and Rivers (2001: 98) have shown that in a utility organization, leadership and culture are important factors impacting on performance measures. This would be true for the change processes required to support the implementation of a performance management system.

RESEARCH QUESTION

The foregoing discussion, in summary, indicates that although performance management has been implemented, partly or wholly, in the local government within the Republic of South Africa in recent years, little progress has been made in discussing the four performance management stages:

- i. **Performance standard setting** – this concept can be broadly defined as a mutual agreement between an employer and employee on goals to be achieved, resources required and ownership of performance activity by the employee. This is often put in writing and communicated according to timeframes set for each activity.
- ii. **Performance measurement** – Kaplan and Norton (1996: 58) defines performance measurement as the use of statistical evidence to determine progress toward specific defined organizational objectives. In this research study it is projected that the said statistical evidence can be derived from a balanced scorecard or spreadsheet.
- iii. **Performance reporting** - allows different individuals to trace their measurements to the management and organisation goals; or allow different departments to cross-reference their priorities and targets using the same documented language.
- iv. **Performance improving** - Throughout the implementation of a performance management system, which may span from months to years, there is a need to constantly focus on the critical goals that can bring

visible progress and enhancement. In addition, to remain competitive and relevant, the measures need to be continually reviewed and revised as the environment and economy changes.

Furthermore, the human and financial resources to implement, and report on PMS contributes to the non-functionality of the PMS in the uMtshezi Local Municipality. Therefore the research question for the study is:

Can performance management be a critical managerial tool for measuring municipal service delivery and accountability to stakeholders?

The following are sub-questions drawn from the main research question:

- i. Is there any valid performance management in the uMtshezi Local Municipality?
- ii. Does the uMtshezi Local Municipality understand the contents and the purpose of performance management?
- iii. Do the communities within the uMtshezi Local Municipality participate in the performance management process of the municipality?
- iv. Are there lessons that can be drawn from the implementation of the PMS process in uMtshezi Local Municipality?

DATA COLLECTION

When gathering the data, Spradley (1979:33) states that selecting respondents for the collection of data, a number of criteria should be applied, namely, the respondent should be thoroughly acculturation into the institution, which requires that the respondent be served with the subject matter being examined. The second requirement is that the respondents should be currently involved in the matter being studied and lastly, the respondents must be able to make time available for the interview.

In the study, the respondents met the above mentioned criteria as they all worked for the municipality for more than three years. All five Directors (directly reporting to the Municipal Manager), three political office bearers (Mayor, Deputy Mayor, Speaker), the Municipal Manager and seven members of ward committees (uMtshezi has 7 wards) were interviewed. One of the directors is responsible for the implementation of performance management system (Director: Planning, Social and Community Services). These employees form part of the senior management team responsible for the implementation of the performance management system of uMtshezi Local Municipality.

The interviews were therefore conducted amongst the Municipal Manager, Section 57 employees and those employees responsible for the implementation of performance management system. All five Directors are employees who in terms of the Municipal Systems Act (Act No.32 of 2000) have performance-based contracts and are directly reporting to the Municipal Manager. These interviews therefore, satisfied the criteria of being currently involved with performance management.

All respondents participated freely during the interview process in accordance with the suggestions made by Rubin (1995:47) who states that qualitative interviewing should be characterized by being 'flexible, interactive and continuous'. Further, the interviewing schedule and questions were adapted during each interview in accordance with Rubin and Rubin's (1995:25) suggesting that the interview process should be conducted in such manner that the interviewer does not pre-plan the questions. Guideline questions were prepared, which allowed for design as the research progressed. The researcher at all times was guided by the quest to thick responses and was always aware of the interactive manner in which questions should be developed when working within a constructive era.

In conducting the interviews the following questions were asked:

- i. Does the municipality have the Performance Management System in place?
- ii. If yes, does the municipality have both the organizational and individual scorecards?
- iii. Has the implementation of performance management been successful?
- iv. What are the causes that are driving or disturbing the implementation of the performance management system?
- v. How does the uMtshezi Local Municipality reward / reprimand its employees? Are they seen as productive people?
- vi. How does the Municipality decide on its important goals?

- vii. How did the Municipality monitor the performance in the past?
- viii. How does the municipality redress when it fails to meet its objectives?
- ix. Does the municipality have a functional Performance Audit Committee?
- x. How does the municipality report on its performance (annually, quarterly, mid-term)?
- xi. What is the extent of stakeholder involvement in PMS?
- xii. Has the feedback from stakeholders been admissible to the municipality?
- xiii. Are the stakeholders happy with municipal targets, objectives, performance areas and indicators?
- xiv. What is the extent of involvement of the political office bearers in developing municipal performance systems?
- xv. With your experience is the performance management systems a commendable tool for municipalities, please explain?

It is therefore evident that the methodology used to gather information is face-to-face interviews. Though desktop and archived information was gathered on the uMtshezi municipality, majority of the primary information was obtained through face-to-face interviews.

AN OVERVIEW OF THE MUNICIPAL PERFORMANCE MANAGEMENT SYSTEMS IN SOUTH AFRICA

The emergence of municipal performance management systems in South Africa can be traced back to the White Paper on Transformation of the Public Service that was published on the 24 November 1995 and the Batho Pele White Paper. These papers intended to develop an organizational culture based on accountability and efficient unwinding of the apartheid imbalances in service delivery. Pertinent to these papers were that they were both upholding section 195 of the Constitution of the Republic of South Africa, 1996 which states as follows:

Public administration must be governed by the democratic values and principles enshrined in the constitution, including the following principles:

- i. A high standard of professional ethics must be promoted and maintained.
- ii. Efficient, economic and effective use of resources must be promoted.
- iii. Public administration must be development orientated.
- iv. Services must be provided impartially, fairly, equitably, and without bias.
- v. People's needs must be responded to and public must be encouraged to participate in policy-making.
- vi. Public administration must be accountable.
- vii. Transparency must be fostered by providing the public timely, accessible and accurate information.
- viii. Good human resource management and career development practices, to maximize human potential, must be cultivated.
- ix. Public administration must be broadly representative of the South African People, with employment and personnel management practices based on ability, objectivity, fairness, and the need to redress the imbalances of the past to achieve broad representation

The Batho Pele White Paper presents a platform for performance management principles in which a culture of accountability and 'putting people first' is being advocated. The said Batho Pele values are as follows:

- i. Consultation on service standards,
- ii. The making aware of service standards,
- iii. Improving access to services,
- iv. The treatment of citizens in a courteous manner,
- v. The offering apologies when necessary,
- vi. The offering of full and accurate information,
- vii. Employees acting in an open and transparent manner,
- viii. While services should be offered and provided economically and efficiently.

The Batho Pele White Paper values are operationalised through the Municipal Systems Act No.32 of 2000, which state that the objective of institutionalising Performance Management at local government level is to monitor, review and improve the implementation of the municipality's Integrated Development Plan. According

to section 35 of the Municipal Systems act No.32 of 2000, the Integrated Development plan is the principal strategic planning instrument of the municipality, which guides and informs all management's planning and development activities. In section 38 of the same act, it is stated that the Performance Management System must monitor the performance of the political office bearers, councillors and that of the administration as a whole. According to the Department of Provincial and Local Government (Guide Pack VI: undated), the performance management system, must achieve the following objectives:

- i. Act as an early warning signal of under-performance so as to enable the implementation of pro active and timely interventions,
- ii. Improve efficiency, effectiveness and accountability of the service delivery programs,
- iii. Create a culture of best practice and share learning among municipalities,
- iv. Promote decision-making and resource allocation,
- v. Guide the development of municipal capacity building programs,
- vi. And create pleasure for change at various levels.

Chapter 3 of the Performance Management Regulations (No. R 796 of the 24 August 2001) sets the criteria, which the municipality's performance management system must satisfy. These include the following:

- i. The nature of the performance management system
- ii. How the performance management system should be adopted
- iii. How the setting of key performance indicators should be done
- iv. The listing of the seven key national indicators
- v. The review of the key performance indicators
- vi. The monitoring, measurement and review of performance
- vii. Auditing of performance measures

In a South African context, the foregoing criteria indicate that the following important legislative requirements need to be upheld when implementing municipal performance management system:

- i. A municipality must demonstrate how it is going to operate and manage the performance management system from the planning phase through to the performance-reporting phase. This, in municipal planning terms, is often referred to as process planning.
- ii. Roles and responsibilities of the role players, as well as that of the local community must be stated. These are highlighted in the process plan.
- iii. The process of implementing the performance management system within the framework of the Integrated Development Plan must be highlighted.
- iv. The community must be involved in the setting and reviewing of the key performance indicators.
- v. Indicators must be set for the development of priorities and objectives, which are stated as input, output and outcome indicators.
- vi. Indicators must be set for all administrative units, employees, municipal entities and service providers with whom the municipality has entered a service delivery agreement.
- vii. Indicators must be reviewed annually and reported at least twice a year to council

Importantly, as stated by Calitz and Siebrits (2002:51), performance contracts for municipal managers are the focus areas in transforming the public service. The Municipal Systems Act No. 32 of 2000 section 57, states that the municipal manager (as the head of the administration and accountable officer) and those managers directly accountable to the municipal manager, must have written employment and performance contracts. The written contracts for the Section 57 employees must consist of a performance agreement with stated performance objectives and targets with indicators set from the municipality's Integrated Development Plan. In the case of municipal manager, the contract is for a fixed term not exceeding two years after the following Local Government Elections.

The municipal manager's contract must make a provision for cancellation of the contract based on non-performance by the incumbent. The performance contract must also contain the values and principles as stated in Section 50 of the Municipal Systems Act No.32 of 2000. In Section 50 emphases is on maintaining a high standard of professional ethics, the making of the public administration accountable and efficient, effective and economical use of resources. The contract must also uphold the management standards and practices of Section 51 of the said Act. The emphases of Section 51 re-emphasize the development of a culture of accountability and

the aligning and organizing of the administration in such a manner that it is flexible and responsive to the needs of the community.

Lastly the contract must reflect the values as stated in the code of Conduct contained in Schedule 2 of the said Act.

The Municipal Finance Management Act No.56 of 2003, states that the municipality must also implement a service delivery and budget implementation plan, which according to Chapter One of Municipal Finance Management Act No.56 of 2003 is:

...a detailed plan approved by the mayor of the municipality in terms of Section 53 (1)(c) (ii) for implementing municipality's delivery of services and its annual budget, and which must indicate- (b) service delivery targets and performance indicators for each quarter...

IMPLEMENTATION OF THE PERFORMANCE MANAGEMENT SYSTEM IN THE UMTSHEZI LOCAL MUNICIPALITY

Uthukela District Municipality to which uMtshezi Local Municipality forms part of, is responsible for ensuring that performance management systems are developed in its district area. To facilitate this process, a guide has been published entitled 'Guidelines for development of Municipal Scorecards'.

A number of performance models are available and any of them could be applied by the municipality. The available models include the Municipal Scorecard, Balanced Scorecard and the Key Performance Area Model. The Uthukela District Municipality has chosen the following model:

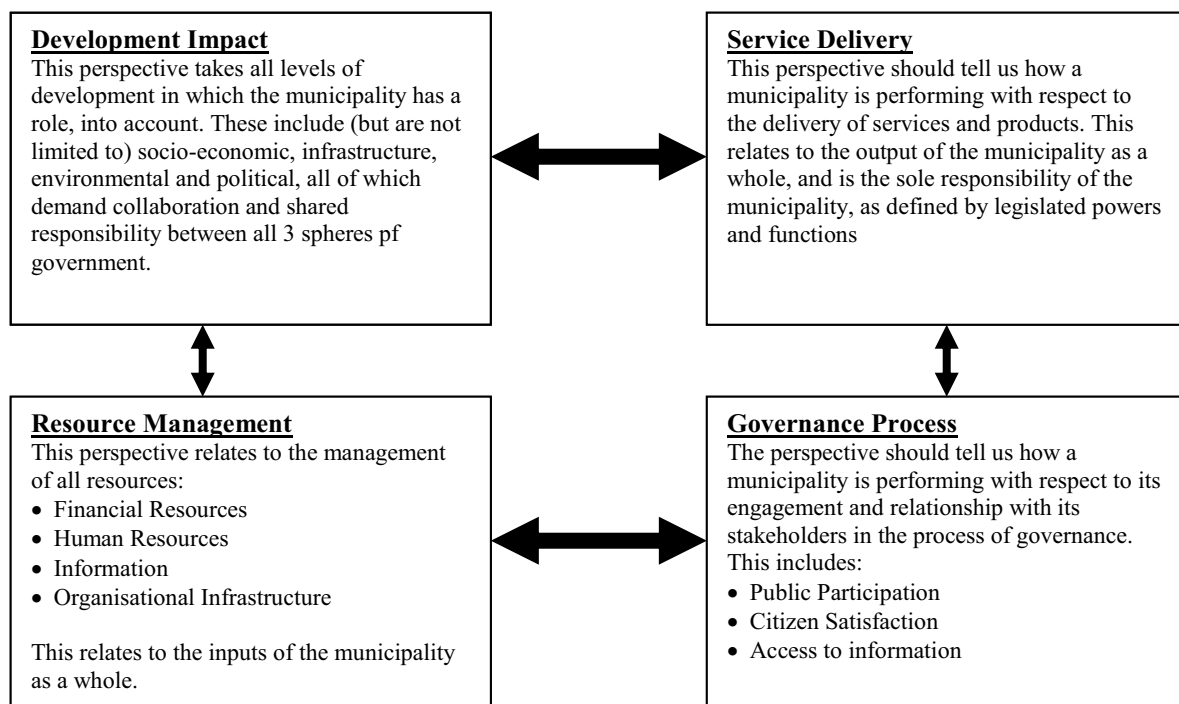


Figure 1: Source: KwaZulu-Natal Department of Local Government and Traditional Affairs Model 2006

A performance management model is a choice about what aspects or dimensions of performance will be measured. Different models give different pictures of performance by emphasizing different aspects to measure. The Uthukela District Municipality model influenced which performance measures it decided to use, and how it grouped these measures together into areas of performance (efficiency, effectiveness, becoming a learning organisation, customer and relationship management).

From the diagram above, it is evident that the four core outcomes for the Uthukela District Municipality, to which the uMtshezi Local Municipality should align its development strategy, are:

- i. Development impact,
- ii. Service delivery,
- iii. Resource Management and
- iv. Governance processes.

The uMtshezi Local Municipality, in developing its own performance management system, submitted an item to the Executive Committee (EXCO) on the 20th May 2003, Performance Management Process Plan. In that report, it was recommended that:

- i. That the uMtshezi Local Municipality align itself with Uthukela District Performance Management system,
- ii. That the uMtshezi Local Municipality adopt the performance Management Framework to guide the Municipality with the preparation and implementation of an institutional and individual Performance Management System.

Council adopted the Performance Management Process Plan on the 20th May 2003 (UMT/193/2003) and the minutes of Council (Appendix 3). In the first year of development, it was anticipated that by the end of the financial year (30 June 2004), an institutional scorecard, Directors (Section 57's) and their departmental scorecards would be completed. It was recommended that during this phase, only the institution, the Mayor, the Executive Committee councillors, the Municipal Manager and his direct reports be measured, monitored and audited. The reasoning behind this motivation was to ensure that the system was workable in the first year and to amend it where necessary before cascading the system throughout.

UMtshezi Local Municipality's Integrated Development Plan (2004/2005) states that the model, against which at an institutional level the Performance Management System has been benchmarked, is the KwaZulu-Natal Department of Local Government and Traditional Affairs Model.

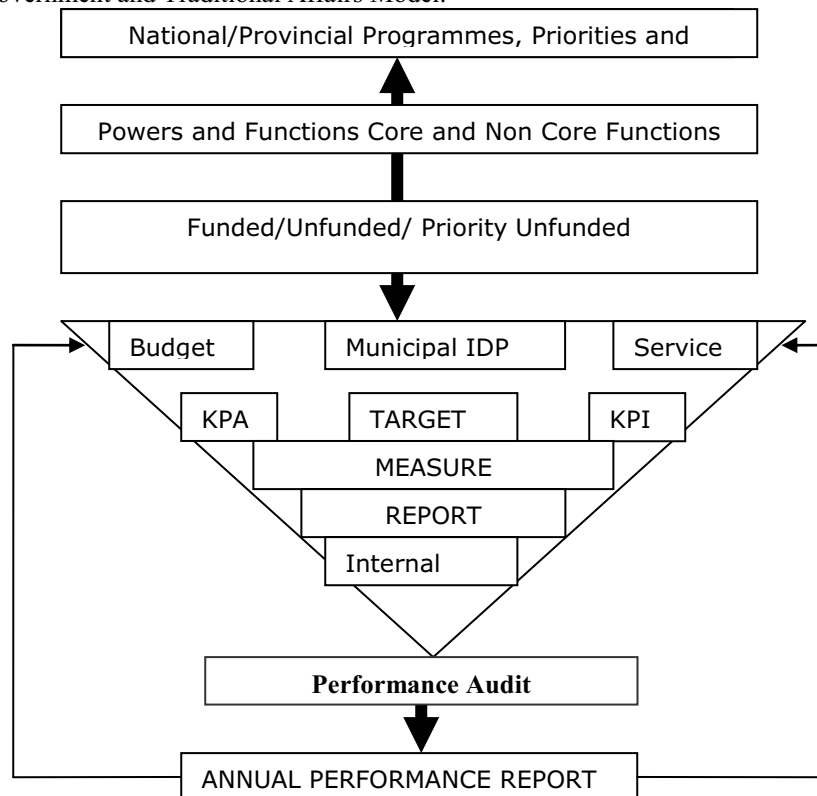


FIGURE 2. Source: KwaZulu-Natal Department of Local Government and Traditional Affairs Model 2006

PRESENTATION OF FINDINGS

UMtshezi Local Municipality has not successfully implemented performance management system during the first term of developmental local government. UMtshezi Local Municipality is an example of municipalities in South Africa, coming into terms with the transformation as determined by the new legislation since the year 2000. The following sections presents findings from the municipality using some of the concepts discussed in chapter 2 and 3. Furthermore the findings will provide answers to research questions outlined in chapter four.

Organisational performance management systems

The workshops commissioned by the KZN Department of Local government in 2001-2002 on the implementation of organisational performance management in local government provided the guidelines for Municipal performance management systems. The challenges that were identified in the foregoing workshops were found to be common in the context of the research area of uMtshezi Local Municipality.

The challenges identified in the municipality in terms of the organisational performance are as follows:

- i. Setting performance indicators – the challenges here being
 - (a) planning, particularly knowing in what areas it will be important to track performance,
 - (b) defining priority areas,
 - (c) defining objectives (as the municipality deepens and focuses its IDP towards concrete programmes and projects),
 - (d) setting indicators; these being the tools the municipality will require to track success in the programmes and projects and, therefore the degree to which they contribute to the municipality's ability to meet its objectives; and
 - (e) setting targets, i.e. the sharpening of IDP objectives by focusing initiatives around measurable targets.
- ii. Creating the links between the organisational performance management system to staff (individual) performance – once the targets of the organisation have been set, performance indicators and targets must be linked to staff performance commitments.
- iii. Monitoring performance – involving the routine collections, analysis and use of information to ascertain to what extent the organisation is making progress in meeting its performance targets.
- iv. Determining sources of information and the management of it - the major assumption underpinning performance monitoring is that there is continuously availability of a stream of performance information to feed the system.

The abovementioned challenges identified in uMtshezi Local Municipality, projects that the municipality is still battling with the implementation of the performance management system, though there is a concerted effort to achieve this in the near future. The discussion in chapter 2 indicated that performance management is a “system devised to manage employees and the organisation.” This requires that the municipality, in the process of development and implementation of the Performance Management System, involves the municipal officials, councillors as well as its stakeholders in setting the development objectives and their implementation thereof. The concerted effort by the abovementioned role-players will ensure that the municipality puts in place an informed mechanism to monitor performance in the Umtshezi municipality.

The preceding argument is being advanced because, during interviews it appeared that the business of developing the PMS was entirely driven by the private consultants, as a result there was minimal participation of relevant stakeholders in the process. Hence the failure to address the challenges mentioned above. It is necessary that all stakeholders of the municipality set performance targets for each financial year for each and every key performance indicator (DPLG: The targets must be realistic and reasonably allocated with resources. This can only be achieved if all stakeholders are involved.

Successes of the uMthezi Local Municipality

UMtshezi Local Municipality is one of five (5) category B local municipalities comprising Uthukela District Municipality. The other local municipalities comprising the District Municipality include Indaka, Umnambithi, Okhahlamba and Imbabazane Municipalities. In response to the current socio economic analysis, uMtshezi Local Municipality has identified projects aimed at addressing the challenges experienced by local communities. The identified projects are in line with the municipality's vision, mission, objectives and strategies, resource framework and also comply with legal requirements of different sector departments or donors. This has been done in order to avoid duplication of activities and allow the municipality to maximize the positive development impact that is derived from utilization of its scarce resources.

The uMtshezi Local Municipality strongly believes in public participation in its decision-making processes. As a result, a consultative process with all the wards under uMtshezi Local Municipality, radio talks and newspaper advertisements are used to get input from the public in order to ensure that the IDP is credible, transparent and accepted by all stakeholders. The comments received from the MEC for Local Government and Traditional Affairs are an important indicator of the extent to which the municipality has managed to fulfill all requirements in terms of the Municipal Systems Act, Act No 32 of 2000.

Energy and Electricity

The uMtshezi Local Municipality is divided into Eskom Licensed Area of Supply and the uMtshezi Local Municipality licensed area of supply. Currently all households within the uMtshezi Local Municipality Licensed area of supply are electrified. The Municipality is only doing in fills and electrifying the low cost housing schemes. Therefore there are no electrification backlogs within the uMtshezi Local Municipality Licensed area of supply. There are households without electricity within Eskom Licensed Area of Supply.

The Municipality is currently doing skills assessment on its electricity staff to identify the skills gap as well capacity. This will inform the organizational structure review, the skills development as well as the optimum capacity required. The Municipality does have an Electricity Master Plan, but it is has not been updated. This Master Plan also deals with the electricity issues within the uMtshezi Local Municipality licensed area of supply.

Roads and Transport

The uMtshezi Local Municipality relies heavily on Municipal Infrastructure Grant (MIG) funding for infrastructure development. The Municipality is working closely with the Department of Transport, through the Rural Transport Forums, in identifying roads that need funding and upgrading within the Municipality. A Transport Plan has also been developed which stipulates clearly their plans for the building of new roads and maintaining in the next five years.

Free Basic Services

The uMtshezi Local Municipality is also focusing on the provision of free basic services to the indigent. The indigent policy is in place and the register is updated regularly for this purpose. However, there are still some challenges that are experienced in this area due to lack of human resources that could focus entirely on this function. Regarding free basic electricity, the Municipality has signed a service level agreement with ESKOM to provide free basic electricity to those areas listed in the agreement. At the moment there are backlogs reported in those areas that need to be addressed by ESKOM. The Municipality is also providing alternative sources of energy in those communities where there is no electricity. On Free Basic Water, Uthukela District Municipality has also entered into an agreement with the Local Municipality on this function. Regarding Free waste removal, there are no programmes in place for this service. There is a funding which is provided by National Treasury to manage the Indigent policy.

Refuse Removal and Waste Management

There is no municipal wide waste disposal site with the result that dumping is uncontrolled and litter bears testimony to this. Only Estcourt, Weenen and Wembezi experience some measure of waste management

although there is a need for the identification of a new waste disposal site. The majority of people, especially in the farming areas, dispose of their waste on-site and diseases emerge because they do not have information on how to manage the situation. As a result, diseases are spread and animals are also exposed to hazardous conditions because of plastics. Awareness campaigns on the importance of proper waste management are conducted. Currently, funds are inadequate to provide formal waste disposal site, hence, a Waste Management Plan is underway

Housing Provision

The majority of the population resides in urban settlements of Weenen, Escourt and Wembezi. This is informed by the historic growth pattern of the municipality. The two main nodes of Weenen and Estcourt evolved as agricultural service centres.

Housing Act requires the municipality through its planning takes all reasonable and necessary steps to ensure that, conditions that are not conducive to health and safety of its residents are prevented and removed. This correlates to the housing development projects planned by the municipality as the majority of them are in rural settlements. The lack of housing development in the rural areas and farm areas can be ascribed to a number of factors, the most important of these being security of tenure on Ingonyama Land and lack of land ownership by farm dwellers. The project linked subsidy which requires beneficiaries to have outright ownership of the site to which the subsidy relates has been until recently the preferred Housing subsidy Scheme. As a result thereof, housing development has taken place in urban areas as all the current housing developments are in urban settlements. The foreseen challenge in the housing development in farmlands is access to tenure as this land is privately owned.

Consequently, there has been no development on Ingonyama Land and farmlands resulting in less than adequate housing standards. Almost half of the municipal population resides in these areas. The introduction of the Institutional subsidy now provides a mechanism for development on Ingonyama Land which provides the beneficiary with a long term-lease. For farm dwellers access to housing opportunities is reliant on tenure reform.

Water and Sanitation

Access to water within 200m of one's home is an acceptable minimum standard irrespective of whether the water comes from a hand pump, borehole, a reticulation system supplied from a high yielding borehole or a reticulation system from a bulk line or reservoir. In the Umtshezi Municipality the water services backlog is at 7% (Uthukela District Municipality IDP) while the sanitation backlog is estimated at 8%. The planned housing projects are guaranteed access to water through CMIP funding. Thus housing development provides opportunities for households to access water and sanitation. This is a district competency and therefore housing projects have to be aligned to the district infrastructure plan to ensure that they the bulk infrastructure component of the development is supplied.

Spatial Integration

From a development planning point of view, the key issue is to promote the social, economic and spatial integration of the uMtshezi Local Municipality. The description of land uses in the uMtshezi Local Municipality clearly outlines the spatial configuration of the Municipality based first on the primary economic activity and past racial planning. While the ideal outcome is to change the past planning legacy however the Municipality can neither socially or economically afford to relocate long-established communities. The strategic response to spatial integration particularly to the tribal settlements in the periphery encompasses two major planning interventions, that is:

- i. To ensure access to social and economic services.
- ii. To promote mixed use that includes economic activities based on skills that already exist in the community.

Housing Development provides a platform for the delivery for other basic services such as electricity, water, road infrastructure amongst others. Furthermore it is critical that the identified land for housing development promotes spatial integration and access to social services (with basic amenities, sports and recreation, clinics,

libraries, shopping malls, cemeteries, schools and other social services), economic (access to employment opportunities, trade and industry).

Institutional Development and Transformation

The uMtshezi Local Municipality has a Human Resource Strategy Document which responds to the long-term development plans which reflect on recruitment, retention, succession plan, scarce skills, skills development plan, etc, and an adopted organogram, with 325 current posts, 45 vacant posts and 16 frozen posts. There is a budget allocated for the review of the Performance Management System for the uMtshezi Local Municipality. The Municipality has established a Special Programmes Units that will ensure there that is effective implementation of the Equity Plan in order to address the issues relating to HIV / AIDS, youth, gender, pensioners and people with disabilities. Policies to address the foregoing Special Programmes have been developed.

Financial Plan

The Umtshezi Local Municipality has put together a financial plan in order to:

- i. To ensure a close planning and budgeting link;
- ii. To inform municipal budgeting over tier;
- iii. To facilitate inter-governmental alignment with regard to capital requirements and sources of funding;
- iv. Assess financial management arrangement and financial strategy; and
- v. To outline revenue and expenditure forecast.
- vi. Funding availability over a 3- 5year planning period

The balancing of this limiting factor relating to income with objectives established in terms of the IDP.

Individual performance management systems

Individual performance plan explains the expectations of Section 57 employees (manager's reporting to the municipal manager) by a municipal council. The Municipal Systems Act provides that performance objectives and targets must be based on the key performance indicators set out from time to time in the municipality's Integrated Development Plan and section 53 of the Municipal Finance Management Act which provides that directors agreement must be linked to the measurable performance objectives approved in the budget and its Service Delivery and Budget Implementation Plan.

The findings indicate that, in responding to the above legislative requirements, the municipality conforms to the area of individual performance management. However, the performance plans has not been cascaded to the middle and junior staff of the municipality. UMTshezi Local Municipality's individual performance plan has five parts into it, i.e.

- i.a statement about the purpose of the position
- ii.a scorecard detailing key objectives and their related performance indicators and targets dates
- iii.information about the knowledge, skills and behaviours required to perform the job
- iv.reference to the Council's performance review procedure and
- v.the link to the reward

Performance audit committee

The researcher has found that uMtshezi Local Municipality does not have a performance audit committee. However, the municipality and uThukela District Municipality are in a SHARED SERVICES agreement, wherein the uThukela Municipality's performance audit committee also service uMtshezi Local Municipality. The typical responsibilities of the said performance audit committee are, but not limited to the following:

Overseeing the independent audit function

The primary duties of the Committee in this area include:

- i. The review of the proposed scope of the annual audit with the independent auditors. The Committee can also use this opportunity to request special investigations or an expansion of the audit into areas of concern to the governing board.
- ii. The approval of the independent auditors' management report on the organization's financial statement at the conclusion of the audit.
- iii. A review of the independent auditors' management letter that emanates from the audit, as well as management's responses thereto.
- iv. The recommendation to the board as to the appointment of the independent auditors.

The reports received by the municipality from the performance audit committee has always been constructive and within the confines of the law (Municipal Manager Umtshezi Local Municipality).

Establishing policies and practices to prevent financial fraud

This includes a full understanding of the areas of risk as they relate to potential fraud within the organization, as well as accumulating the fraud-related findings of the independent auditors.

Ongoing understanding of the internal-control environment

The objective here is to ensure that controls are in place to provide reasonable assurance that assets are safeguarded, that transactions are authorized and properly recorded, and that the organization is in compliance with applicable laws and regulations.

Oversight of the financial-reporting process

The Committee should ensure that the frequency, distribution, and scope of the organization's internal financial and accounting reports are appropriate to support management's responsibilities for providing meaningful data and that the information contained is timely and accurate.

Budget control

Budget analysis quite simply tells us how much money there is, where it comes from, and what it is spent on. It gives the 'Rands' to the plans and policies outlined by government and for which government is accountable. As such, a budget is more than just a technical document. Instead it reveals government's strategic choices and decisions and is thus an important political tool.

Municipality is the closest level of government to the ordinary citizen. It is the eyes and ears of a government, committed to listening to its citizens. It is also usually the first point of contact between citizen and the state when it comes to delivery of government services and development initiatives in this municipality it is opposite.

In cooperation with other board committees, the Committee should ascertain that the annual budgeting process relates meaningfully to the organization's financial reporting formats, and that budgets and subsequent budget-to-actual comparisons are completed in a timely manner.

Therefore this section can be concluded on the note that individual performance plan systems is seen to be functioning in Umtshezi municipality.

Community involvement in Performance management

Performance Management Systems requires effective interactions between the municipality, councillors and representative stakeholders to identify issues and exchange views on a continuous basis (Logotri' 2001:22). The findings in the uMtshezi Local Municipality are that there has been minimal engagement of stakeholders in identification of performance monitoring mechanisms. However, during IDP meetings the community does

voice satisfaction or dissatisfaction with regard to the pace of development and service delivery (Mayor, uMtshezi Local Municipality). It is imperative that the municipality develops a mechanism to source community involvement in performance management.

CONCLUSION AND RECOMMENDATIONS

The study presented in this paper indicates that performance management requires a fundamental change to organisational culture in a municipality, where measuring and accounting for a “developmental role” is seen as integral to what constitutes good management. The overview of municipal performance management in the study suggests the following elements of an approach to performance management in local government:

i. Identification of stakeholders to be involved in the performance management system and in the public participation process. Amongst the important stakeholders are the community, councillors, business and other interested parties.

ii. The establishment of institutional arrangements to develop implement and maintain a performance management system. The development of an institutional plan is imperative in order to ensure that the development plans are implemented and their impact is assessed.

iii. The development of framework for performance management in the municipality. It was noted that in uMtshezi Local Municipality only Individual performance plans are in place, it is important that municipalities have organisation performance management systems which will be driven by the municipal vision.

iv. Identification of indicators and the setting of targets. This will help in measuring performance including outcomes and impact, with regard to municipality’s development priorities and objectives set out in the integrated development plan.

v. Measurement, analysis, reporting and review of progress. The study has identified that uMtshezi Local Municipality has the severe lack of information for planning and management, this has proven to be the crucial obstacle to effective municipal management. This was manifested by the lack of organisational performance management system which could annually assist the municipality to do incremental budgeting and planning.

vi. Auditing of performance. It was found that the municipality does not have a functional audit committee which plays an oversight function in ensuring that the municipality performs according to its set objectives and targets. This requires an urgent improvement and appointment of the committee.

The introduction of performance management to local government internationally represents a marked departure from the traditional public sector approach of rule bound hierarchies. The study found that the implementation of performance management systems can run the risk of promoting a narrow managerialist approach. In the Umtshezi municipality only individual performance management scorecards exists thus implying that only section 57 employees need to be monitored, hence the findings. Such an approach with inappropriate measures, that often reflects what managers rather than other municipal employees deem to be important.

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BUSINESS COMPETITIVENESS IN LITHUANIA

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ABSTRACT

The work gives an analysis of the competitive environment of national business in Lithuania and of national business enterprises competitiveness. The work specifies the modern conception of competitiveness and gives a survey of the theories and levels of competitiveness. Porter's business competitiveness measurement index is given. Business competitive conditions are specified. The last part provides the results and conclusions of business competitiveness research performed.

INTRODUCTION

Scientific problem, innovation and importance of the paper. Competitiveness, as a phenomenon of the efficient activity of enterprises, is of importance in the business life of the country while pursuing a policy for sustainable economic development. This policy, as a problem, for business development and enhancing of competitiveness has not been systematically explored and described under the conditions of Lithuania in the scientific and practical literature. One of the most important factors for attaining a rapid economic growth is the sustainable entrepreneurship development in Lithuania, with the use of all national resources. Under the conditions of globalization it is impossible to be competitive in the Baltic Sea Regions. It is necessary to find the fields of activity on the national and the European Union (EU) market, to make use of the available advantages of the sustainable development of Lithuania's economy. Favourable geographical conditions and qualified workforce are insufficient resources in order to compete on a par on the national and EU market. It is necessary to develop business in Lithuania, on the basis of the most advanced technologies, better using the creative potential of our people and innovations at a level of national resources. As one of the most important measures of political decisions to ensure the sustainable development of the state and society is the overall national business enterprises (NBEs) development, predetermining a rapid growth of national economy. Entrepreneurship is a unique combination of decisions, striving for innovations and risk, encouraging NBEs and its efficiency. The future of business in Lithuania in the single EU space depends on the conditions of performance, the initiative of entrepreneurs, mutual respect, and support of the State institutions (Competitiveness of Lithuania's economy..., 2008).

NBEs are of special importance in implementing innovations, since they can respond fast to the changes in demand and technologies. Very often business commence the implementation of new production processes and place the competitive product on the market, and later at the global economic level they are taken over by big companies. NBEs have a decisive impact on the creation of new jobs. For those enterprises the big investment property is not necessary, they respond promptly to the changes in the national and EU market, thus creating rivalry for individual types of activities in big enterprises. NBEs are the basis of the economy of the EU Member States. It is those enterprises that create thousands of new jobs for the Europeans and condition a good number of economic changes in the EU.

As at today, quite a number of business in Lithuania are being closed due to political, economic and social problems, but still more of them are being established. At the State level, it is very important by political decisions to improve the NBEs environment, which would be favourable for NBEs competitiveness and would encourage the innovative and socially responsible business culture. As it is given in the strategy for the long-term economic development of Lithuania until the year 2015, the efforts of Lithuania to enter the EU economic space and to compete equally here will be successful only when NBEs will be given special concern (Lithuania's economy... economy, 2008). According to the World Economic Forum data, in the period of 2000–2005, Lithuania was ranked between 36 and 43 as to the competitiveness growth index (by macroeconomic aspect), and in 2007–2008 stood at 38. According to the 2005 business competitiveness index, measuring management and strategy quality of businesses, as well as the national environment, where business decisions of the enterprises are taken, a similar tendency is observed in the case of Lithuania as at the level of the competitiveness growth index, since Lithuania was just ranked 41. Thus, business competitiveness at the global level in Lithuania is average.

The object of research: Lithuanian business competitive environment. *The objective of research:* to assess the Lithuanian business environment and to propose measures for its improvement. *Research tasks:* To describe NBEs role in the national economy. To provide NBEs competitiveness enhancement theoretical and practical tendencies. To identify NBEs competitiveness conditions. To analyze NBEs competitive environment factors and to propose measures for their improvement. *Research methods:* scientific literature analysis, analysis of legal documents, statistical data analysis, logical analysis, systemic analysis, and while analyzing business performance conditions, a comparative analysis was applied, seeking to determine the principal tendencies of changes. *Methodology of effective management* is expressed by comparative efficiency computations with the application of mathematical model: $k_E = A_R / A_N$, here: k_E – coefficient of comparative efficiency, the value of which is 0 – 1; A_R – real labour result of the use of human potential; A_N – real labour normative of the use of human potential.

TENDENCIES FOR THE DEVELOPMENT OF NATIONAL BUSINESS ENTERPRISES

NBEs importance in the economic development of the country is expressed by placing the national product on the market, enhancing the market competitiveness, thus improving microeconomic and macroeconomic indicators. It is stated that NBEs sector is capable of adapting itself more rapidly to the demand and supply conditions. Those national enterprises are the first to change the volumes of performance, are very innovative, and fast responding to the satisfaction of the consumer needs. They are the first to find new market segments, to master them, and only later the products from large organizations enter them. With the change in the number of the population and economic environment, NBEs is oriented to the creation of new jobs. Statistical data show that NBEs contribution into the development of employment is biggest (Makštutis, Vijeikis, 2008). NBEs, which have not gone bankrupt in the first years of their life, within the next three years created approximately 3–7 new jobs, and after five years of their existence 3–8 jobs, on the average. Therefore, NBEs are very important for the sustainable development of the State and Society; as they rapidly improve the employment in the country, stimulate to work more flexibly, especially when large companies reduce jobs. Simultaneously, NBEs are able to adapt more quickly to the national market changes, due to them the majority of new jobs are created especially in those fields of activities where goods and services are in greatest demand in the society within the specific period. It is also known that with the increase of the number of employees in NBEs they become a part of the sector of corporations. Also attention should be focused to the fact that not all business undergo changes in a similar way. The capacity of business to create new jobs is characteristic of the majority of the national enterprises (Makštutis, Malovikas, Smaliukienė, Vijeikis, Domarkas, 2008).

NBEs, while employing a good number of people from a social risk group, for whom the work in big organizations is hardly accessible, create conditions for them to take care of themselves and stimulate the positive processes of integration into society (Makštutis, 2008). Young people, usually just after graduation from universities and colleges, most often get jobs at NBEs, since it is inaccessible for them to start their activity at large enterprises. Therefore business sector not only provides big opportunities for improvement and creativity, but also performs the educational role in the field of NBEs (Makštutis, Social liberalism..., 2008). Major discoveries may be made not only in large enterprises but also in NBEs. The national enterprise where

innovations are implemented has higher productivity, and therefore better products and production methods are created. Millions of national enterprises thus contribute to the increase of the gross productivity of their country (Gineitienė, 2005). Both large enterprises and NBEs strive to pass over to the production of competitive products open to innovations. They employ the qualified workforce, implement or acquire new technologies. Research of innovations showed that business conduct market research and implement innovations in their activities more efficiently than large enterprises (Jucevičius, 2006). Research made on the market showed that NBEs were the main and important innovators in those branches of economy where unemployment went down as well as in those where it increased. It was established by research that NBEs were by 1.8–2.8 times (per employee) more innovative than large corporations (Bartkus and Piktyš, 2007, p. 22). Consumers depend on the manufacturers, whenever several large enterprises are operating on the market. They fix high prices, stop technological innovations, block the performance of new NBEs, and abuse the dominating monopolistic power and position on the market against consumers. In this case, only by support of the State institutions, NBEs may find a way out of a situation formed to solve a problem of enhancing the market competitiveness. NBEs competitiveness on the national market makes it possible to improve the quality of their services and goods supplied and to reduce prices. In this case, NBEs and large enterprises not only compete but also supplement the conditions for performance of each other. NBEs sell the products of large enterprises, provide numerous services to them, and supply the large enterprises with the necessary consumption resources, since corporate suppliers just are not able to perform the analogous functions. Therefore, a conclusion may be drawn up that support of NBEs by State institutions is an integral part of the national economic development, which ensures the sustainable development of the State and Society (Indriūnas, Makštutis, 2008). NBEs may expand their activities as partners of large enterprises. Large enterprises buy various goods and services from the majority of NBEs, since the latter operate more flexibly on the market and its segments, thus reducing operating costs of large enterprises. Only a very small part of the large manufacturers, manufacturing certain products, have their own wholesale and retail trade channels and outlets. Large companies transfer retail supply functions to their representatives – distributors, who are spread throughout the world (Bartkus, Piktyš, 2007, p. 24). Just the fact that NBEs further remain in the competitive economic system is a perfect proof of the efficient performance of NBEs. If NBEs operate inefficiently, they would not be useful for the economic system; they would go bankrupt very quickly and would withdraw from the business environment due to stronger competitors. In addition to the above-mentioned advantages, NBEs face a number of shortcomings and problems. NBEs go bankrupt more often because managers lack knowledge and experience in finding and motivating the gifted staff members, who by their professional activities would enhance the company's competitiveness and development. Meanwhile, presidents of large enterprises, corporations usually possess the professional training in the field of management, have professional assistants for the formation of business teams, for the implementation of strategic objectives, programmes and projects under global economic conditions (Lessel, 2007). Too strong ambitions of the founders and personal consumption are expressed in NBEs, quite often the lack of education and technical competence is felt. If the individual has enough money to launch his own business, this does not mean that he may implement it successfully (Kvedaravičius, 2006). Any field of business demands the appropriate education, capacities and experience in the modern business environment (Vasiliauskas, 2007). It is already in the past when it was thought that if you want to become a prosperous entrepreneur you just should be a shrewd and aggressive person. Therefore at the moment, the number of enterprises is rapidly increasing in Lithuania where specialists are involved in consulting, preparing of projects and helping to implement them for NBEs. Demand for such services just proves that it is very risky to get engaged in business without scientific knowledge, since it is possible to lose investments as well as the whole property. One of the problems in question in NBEs is the lack of knowledge in strategic marketing. Practical results – when an entrepreneur primarily selects the field of activity (goods or services), intending to outwit other market players, and starts his activities. After some time it becomes clear that goods or services have no prospects for demand. In this case, it is necessary not only to know but also to be able of conducting professional marketing research (Vijeikis, 2007).

The development of NBEs is impossible without investments and loans. To-date, this is the most urgent problem of NBEs in Lithuania. It is difficult to receive a credit, to postpone tax payment, the procedure of settlement is often violated, and the possibilities of debt recovery are very limited. In difference from the developed EU countries, Lithuania possesses the incorrect and vicious procedure of business planning, its location in major cities. In the EU major countries, the supermarkets (for consumer goods) are concentrated out of town, and in Lithuania, on the opposite, big retail outlets are concentrated in the city centres. Therefore NBEs do not have real opportunities to expand sales in the cities of the country. Today, the expanding supermarkets predetermined that a good number of NBEs in the cities of Lithuania are closed. However, in spite of the aforementioned serious problems, the increased importance of NBEs establishment in the cities at the level of the

sustainable development of the State and Society remains, since the general contribution of those companies into the economic and market development is significant. At the present moment NBEs in Lithuania create approximately 70 per cent of the GDP, produces the major part of heterogeneous goods and services. Their contribution is exclusive, since they create new jobs, implement and develop innovations, enhance competitiveness, are able to maintain partnership with large companies. This is the most mobile and changing group of NBEs, able to react very flexibly to the frequently changing market conditions, technological requirements, and to implement innovations (Aleksonytė, Kuliešienė, 2008).

TRENDS IN ENHANCING NATIONAL BUSINESS ENTERPRISES COMPETITIVENESS

The State makes efforts to enhance the competitive advantage of the national market in respect to other states. This helps to raise the country's prestige and has a big impact on the economic and market development. The competitive advantage of NBEs in Lithuania at the EU level was predetermined by the accessibility of credits, flexibility of the wages system, the number of population (with secondary and higher education), a level of inflation and conditions for receiving loans. These factors of competitiveness are surveyed in the study of factors of Lithuania's economic development and market competitiveness. Simultaneously, it was established that in addition to the indicated advantages, Lithuania's competitiveness is weakened by the existing technological level, the number of patents, emigration of specialists, intellectual property protection, corruption level, investment of the companies into staff training, efficiency of courts and other factors. The creation of knowledge economy in the country would be accelerated by the integrated networks business and science competence, which would become the basis for the creation of interactive clusters. It is proposed to increase the financing of scientific and experimental research, to stimulate the intellectual business, and to develop the concept of all life learning in the society at all levels and in all age groups (Competitiveness of Lithuania's economy..., 2008).

In theoretical studies, business competitiveness is studied as the capacity to acquire competitive advantages among market players. Making an analysis of the opinion of various authors on the impact of NBEs on the formation of competitive advantages, three approaches are distinguished, on the basis of which a competitive advantage is being formed in the enterprises, namely: *value added chain analysis*; *analysis of interorganizational relations*; *competition model analysis* (Porter, 1998).

In our opinion, in NBEs, the more effective formation of competitive advantages is possible on the basis of the third approach, this is M. Porter competition model analysis. M. Porter in his book "The Competitive Advantage of Nations" (1998) states that the most important analytical and practical tool is "diamond" competitiveness advantage. This model is based on four specific crucial factors (corporate strategy, structure and rivalry; production factors, related and supporting industries; demand) and two external conditions (role of the State and chance events). M. Porter's four crucial factors and two external forces are acting together in the "diamond", elucidating a competitive advantage of the performance of the entity. As Porter states, the role of the country's government shall have an effect on four crucial factors inside the "diamond". A consequence of that impact may be positive and negative, in dependence on its impact on the industry and society (Porter, M. Porter diamond..., 2009). Policy, which is directed to the capital markets and education, has an effect on the production factors. Often, the country's government and its institutions are the main buyers of certain goods and services. The government's policy may also form a permanent strategy, structure and through its impact make an effect on the capital markets, tax policy, and also improve laws for business development (Lithuania's economy...development..., 2008). Porter underlines that competitive advantage is acquired by those states, the manufacturers of which understand the needs of their consumers and take them into account when manufacturing products. For evaluation of needs, a permanent relationship is necessary between consumer and the staff of the company. This is a very complicated process, covering the satisfaction of the needs of local and foreign consumers. Therefore NBEs rivalry on the national market becomes very important and helpful in acquiring international competitiveness (Vijeikis, 2007). Four key factors for assessment of the advantages of the country are presented in Fig. 1.

1. Corporate strategy, structure and rivalry. The country's competitiveness in certain business segments is inevitably related to the strategies and structure of NBEs in that segment. Rivalry of individual companies has an effect on the innovation of their performance. Since rivalry of the domestic companies in the country is direct and earlier in terms of time than steps, taken by foreign competitors, the assessment of national

companies by competitiveness is higher when expressing innovation and efficiency and preconditions a higher level of competitiveness abroad. For example, the Japanese automotive industry with 9 key competitors (*Honda, Toyota, Suzuki, Isuzu, Nissan, Mazda, Mitsubishi, Subaru & Datsun*) provides intensive rivalry both on the internal and external markets. Such legal environment, conditioning the competitive performance of the companies, is formed by the national authorities. The more intensive competition forces companies to put more efforts: to implement innovations, to offer products of higher value, and thus to enhance their competitiveness abroad (Neven, 2001).

2. *Demand*. On the internal market, the implementation of innovations in the companies, upon the assessment of consumer approach, has an effect on the demand conditions. The development of home market simultaneously stimulates the companies to expand their activities. As an example, we can provide the case of Germany, which is in possession of the leading car companies *Mercedes, BMW, Audi, etc.* The German car companies dominated on the world market, unless a higher level of the world automotive industry was achieved. Today, the products of the German automotive companies have high prices and their position on the market of cheaper cars is weaker, this being predetermined by the specific features of the world consumers. Bigger and richer markets are able to stimulate the establishment of the companies and attract more foreign investments, which are capable of manufacturing cheaper cars of mass production *Nissan, Mazda, Mitsubishi* (Neven).

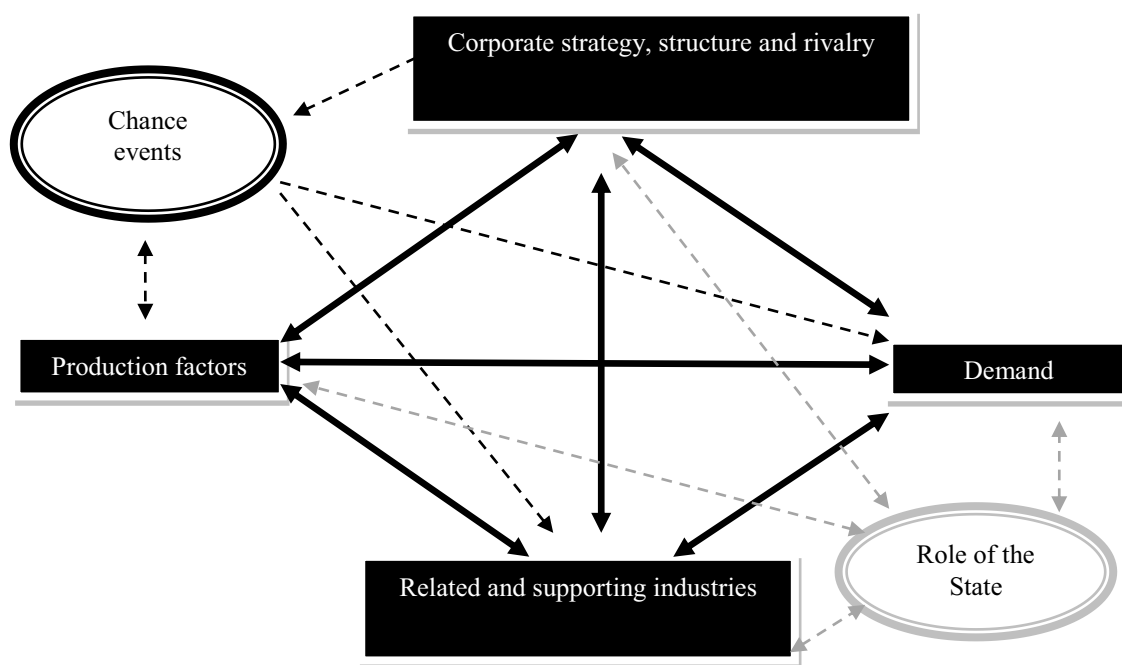


Fig. 1. M. Porter's "diamond" for home market (for assessment of the country's advantages) (Porter, 1998)

3. *Related and supporting industries*. For many NBEs, being related to other industries is of crucial importance for the development of a certain branch of industry. The competitive powers of the individual companies and even branches are inclined to be joined into "groups" of industries. For example, the Silicon Valley in the USA and the Silicium Valley in the United Kingdom are groups of advanced technology industries, which join the individual enterprises manufacturing software and semiconductors. In Germany, similar groups are formed among the enterprises, manufacturing chemicals, synthetic paint, and textile. These are also other economic sectors, related to the company by various relations: suppliers, financial institutions, partners, other services to the business, which make the market more attractive to investors (Neven).

4. *Production factors*. They may be subdivided by categories into two forms: local resources and very specialized – imported resources. For example, Japan possesses insufficient natural resources, and Russia lacks the workforce of highest quality, most innovative and perspective technologies. Thus, production factors are natural resources, a level of demand–supply on the labour market, education of people and public knowledge, perspective technologies, national economic and market infrastructure, etc. (Neven).

It is possible to note that a "diamond" model encompasses four key groups of factors in the general infrastructure of the country's economy and national market. The factors in this group are subject to permanent

change under the conditions of the global economy and international market, therefore this affects the general competitiveness. While assessing the actual impact of NBEs on the formation of competitive advantages, it is possible to distinguish the two main groups of competitive advantages, which consist of: competitive advantages in industries; relative competitive advantages.

Competitive advantages in industries are such competitive advantages, which are formed by NBEs in respect of the competitive forces in the corresponding industry, i.e. acquisition of bargaining power, this meaning the capacity of the company to effectively tackle the bargaining situations, bargaining with clients or suppliers for its own benefit. In order to use NBEs for the creation of the national economic value, it is necessary to survey the two initial factors, specifying profitability (Porter): the structure of an industry which predetermines the profitability of the average competitor; permanent competitive advantage, which helps the company to outlive the average competitor. Those two profitability factors are universal; they may be adapted for the implementation of any technologies and the development of activities. At the same time, they differ greatly for the individual industries and NBEs.

Relative competitive advantages are competitive advantages of NBEs in respect of the competitors of the company, like the capacity of the company to manufacture goods at lower costs and of higher quality, comparing to other equivalent products on the market. Relative competitive advantages may be external and internal.

External or interorganizational relative competitive advantages are such advantages that NBEs create in their relations with other enterprises in the national economy and on the national market. External competitive advantages are formed in two stages: by minimizing the costs of transactions and selecting intermediaries; identifying the optimum number of intermediaries.

Key functions of intermediaries (Snowdon, Stonehouse, 2006): *Demand and supply adjustment*. Intermediaries reduce the number of interactions between buyers and sellers, which is necessary for collecting information. *Impact* – the reduced price of transactions, scale of economy, and the decreased gap in the negotiations. *Trust*. Trust reduces the risk of market transactions and obligates the participating parties. *Market organization*. Intermediaries organize information exchange, coordinate the processes of operations between market players and reduce the price of transactions. *Search, selection of buyers and sellers, processes of negotiations*. Intermediaries create measures that help market players to complete transactions. *The role of intermediaries as information suppliers*. Those intermediaries sell information on goods and services, rather than information about their price. *Other intermediation functions*. The following functions are distinguished: audit, financial intermediation, petty trading, etc.

In all cases when market players may develop their activities without intermediaries, it does not mean that those performing the functions of intermediaries do not exist. In this case, the functions of the intermediary are undertaken by the market players themselves. Internal relative competitive advantages are such advantages which may be formulated by NBEs while restructuring their functions. Internal relative competitive advantages are related to enhancing the efficiency of operations and functions performed, and to improvement of the staff capacities. Enhancing the efficiency of operations and functions is a traditional method for the use of information technology, and it is very important in the formation of competitive advantages. However, it should be noted that some competitive advantages may be attributed to both groups, for instance, innovation of goods could impact relative advantage (to reduce production costs) or advantage of an industry (increasing the negotiating power and underlining the specific features of goods or services and the client choice opportunities) (Vijeikis, 2007).

BUSINESS COMPETITIVENESS INDEX

The author of business competitiveness index is M. Porter. This index specifies microeconomic (at a level of enterprises) and national economic competitiveness factors. By this index, the quality of management and strategies of business companies as well as national economic development environment where business decisions of the enterprises are selected is assessed. The procedure for measurement of business competitiveness index is given in Table 1.

Table 1. Business competitiveness index (Jucevičius, 2006)

Business competitiveness index =
$1/3 * (\text{Enterprise management and strategies}) + 2/3 * (\text{business environment quality})$

According to the 2005 business competitiveness index, in the case of Lithuania, a similar tendency is observed like at a level growth competitiveness index. Lithuania was ranked 39 on the list of countries in 2007. Data are provided in Table 2. As to the data of the report, published by the World Economic Forum, Lithuania according to the business competitiveness index (covering 131 countries) in 2007 was ranked 39th, even though business environment in Lithuania became worse.

Table 2. Business competitiveness index in Lithuania (World Economic Forum, 2007)

Factors / Period	2007	2006	2005	2004	2003	2002	2001
Competitiveness index (2007–2001)	39	40	39	36	39	43	48
Experience of enterprises' activities	39	39	37	38	41	40	53
Business environment quality	43	42	39	37	40	43	48

ANALYSIS OF ENVIRONMENTAL COMPETITIVENESS RESEARCH FOR NBEs PERFORMANCE IN LITHUANIA

During research, it was identified that NBEs competitiveness in Lithuania depended on the specific factors (like the capacity of the enterprises to develop and master new technologies; to develop innovative technologies; to recruit the qualified personnel; to rationally use material and financial resources, etc.), which make an impact on the performance optimization and development (Makštutis, Vijeikis, 2009). With the application of Porter's competitiveness analysis methodics and methods, research conducted in 2008 made it possible to evaluate the key conditions for NBEs competitiveness in the economic and market environment in Lithuania, taking into account such criteria, like export promotion, consumer purchasing power, business infrastructure, financial, material and human resources, tax administration, legal, economic, political and cultural environment. For evaluation, efficiency scale from –1 to 1 was used. The generalized exploratory results are given in Fig. 2. Research results are totally unfavourable for the establishment of NBEs and their performance efficiency. Overall inflation and deflation have a strong effect on business development. During the period of the economic decline, the population income has shrunk considerably, therefore expensive and long-term consumer goods were purchased fewer. Income may go up due to the credits taken by the population, though their need also depends on interest rate. With the high unemployment in the country, the demand for staple commodities may decrease, and those factors substantially weaken the economic environment of Lithuania and impede the NBEs establishment and their performance expansion. NBEs performance is under considerable impact

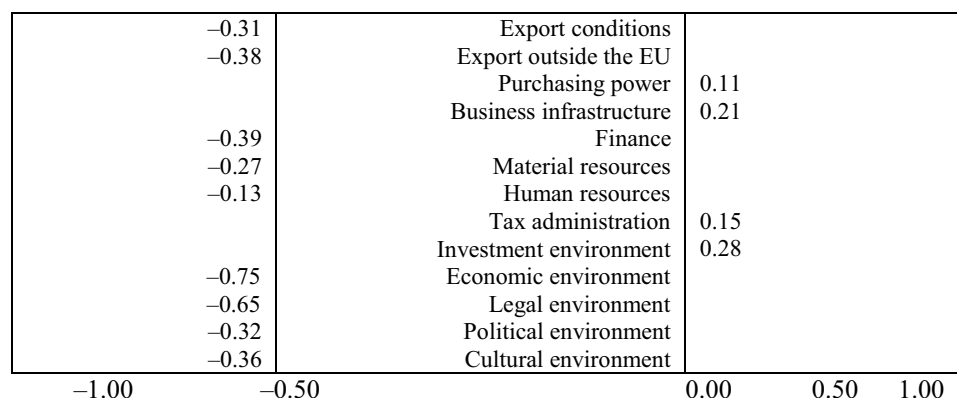


Fig. 2. Assessment of the State-driven business environment (Aleksonytė, Kuliešienė, 2008)

of the formed external environment, the research results of the factors thereof (like the established procedure, habits, the created informal rules, etc.) are provided in Fig. 3. Business environment was according to the criteria: qualification level of the staff, need for funding sources, accessibility of investment sources, management problems, capacity to enter new markets, rivalry with the shadow business and with legal entrepreneurs, lack of information, mafia and racketeering, bureaucracy barriers, payment by clients, corruption and business regulation conditions. For assessment, the scale of efficiency from –1 to 1 is used.

Research results are completely negative for NBEs establishment and performance efficiency. The internal factors of NBEs environment and their assessment results are provided in Fig. 4. Research results are totally unfavourable for the establishment of NBEs and their performance efficiency.

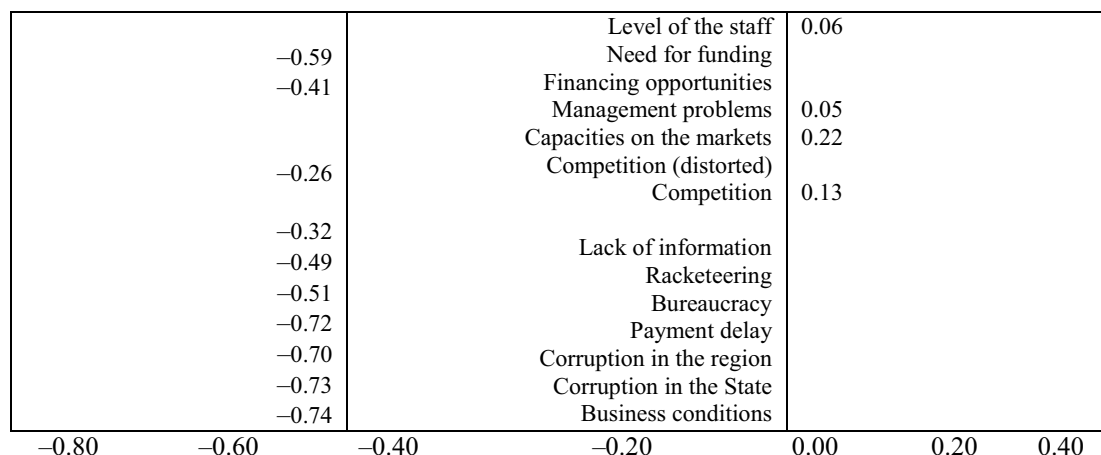


Fig. 3. Assessment of the external factors of the respondents, having an impact on the company's performance (Aleksonytė, Kuliešienė, 2008)

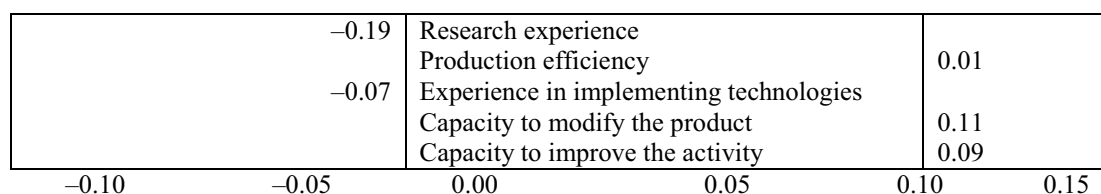


Fig. 4. Assessment by respondents of the internal factors, having an impact on the company's performance (Aleksonytė, Kuliešienė, 2008)

Having assessed the achievements of the State and society in the field of the sustainable development, it is possible to formulate and provide the conclusions of this work that are based on the perspectives for the sustainable development.

CONCLUSIONS

1. The importance NBEs and its impact on the economic development of the State predetermine special attention of the public. NBEs contribution is exclusive: they create new jobs, disseminate and implement technological innovations, enhance competitiveness, collaborate with large organizations, increase the volumes of national product, manufacture goods effectively and provide services to consumers.
2. On the basis of the conception of competitiveness, it is observed that competitiveness covers the environment of external and internal conditions of NBEs performance, that due to competitiveness a modern social level of the development of enterprises is maintained: capacities, development of intellectual, optimum efficiency, social responsibility and creation of the knowledge society.
3. Achievements of the sustainable development of the State and Society are assessed by the business competitiveness index. This assessment indicator proposed by Porter is subject to discussion, it makes it possible to state that each assessor measures competitiveness differently and receives different results. However, all agree that competitiveness is the capacity of the State institutions to support NBEs, which may achieve and retain the modern rates in the development of the national economy.
4. In the process of enhancing NBEs competitiveness, the key role belongs to the domestic external and corporate internal business development environment conditions. Research conducted enables one to state that the legal

- and economic environment of NBEs received the worst assessment, since business development and implementation of innovations are mostly hindered by the complicated interpretation of tax laws and by tax system.
5. In the State policy (support) as most unfavourable are indicated support supply conditions; support from municipal and national business funds is assessed as poor; profit tax and VAT privileges, support from EU structural funds are insufficient, therefore NBEs are not stimulated financially for enhancing national product competitiveness on the national market.
 6. After estimating research results, it is possible to state that the environment for the development of NBEs performance in Lithuania is unfavourable, therefore the efficient support of the State for improvement of entrepreneurship, oriented to the enhancement of competitiveness, is necessary: increase of NBEs informativeness, development of consulting, business incubation and other services; simplification of national business access to various funding sources and quality improvement of the services of the State institutions.
 7. The State shall grant real support to the starting entrepreneurs: in the first three years to lift or significantly cut profit and income taxes, to exempt from land and property taxes, to grant other privileges.

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RECKLESS LENDING AS UNETHICAL CONDUCT IN BUSINESS NEGOTIATING AND DEAL MAKING

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ABSTRACT

Since the beginning of our constitutional democracy, there has been a problem of reckless lending to consumers by the credit providers. Reckless lending is a threat to both individual existence of companies and the economy of the country. In 2005, the National Credit Act was enacted to protect the consumers from the credit providers who acted illegally and with unethical conduct in business negotiating and deal making. This paper will examine the problems encountered by the consumers when they enter into credit agreements with credit providers. The paper will then also argue for the implementation of section 83(1) of the National Credit Act, but it should punish companies who practice reckless lending. The paper adopts research approach of both literatures and legislation. The research opinions of academics have not had much influence on the issue of reckless lending. This paper is concluded on the outcome of the research findings that if ever possible to do; reckless lending is a threat to our economy.

INTRODUCTION

Since the beginning of our constitutional democracy in South Africa, there has been a problem of reckless lending to consumers by the credit providers. The National Credit Act, 34 of 2005 was introduced by the Department of Trade and Industry to regulate the credit industry in South Africa and to protect the consumers. The credit providers were acting illegally and with unethical conduct in business negotiating and deal making.

The prevailing legislative environment at the time was incapable of contemporary concerns in the credit market. Reckless lending and other issues were not adequately addressed. The consumers encounter many problems when they enter into credit agreements with the credit providers because they are always desperate to buy on credits.

WHAT IS RECKLESS LENDING?

Section 80(1) of the National Credit Act defines reckless lending as follows:

“A credit agreement is reckless if, at the time the agreement was made, or at the time when the amount approved in terms of the agreement is increased ...

The credit provider failed to conduct an assessment as required by section 81 (2), irrespective of what the outcome of such an assessment might have concluded at the time; or

The credit provider, having conducted an assessment as required by section 81 (2), entered into the credit agreement with the consumer despite the fact that the preponderance of information available to the credit provider indicated that-

- The consumer did not generally understand or appreciate the consumer's risks, costs or obligations under the proposed credit agreement; or
- Entering into that credit agreement would make the consumer over-indebted.”

THE INTENTION OF THE LEGISLATURE

The intention of the legislature in drafting section 80(1) of the Act was clearly to regulate all conduct of credit providers that was responsible for causing over-indebtedness. The approach is preventative in nature and applies prior to the conclusion of a credit agreement. This means that prohibition of conduct is not limited to entering into a credit contract that makes a person over-indebted but it extends to all other auxiliary conduct that can potentially cause over-indebtedness. Reckless Lending in the Act includes:

- a. Failure to conduct a credit assessment of the consumer as required by the Act or;
- b. Entering into an agreement with a consumer who does not understand or appreciate a costs, risks, and obligations of the credit agreement

THE CAUSE OF RECKLESS LENDING

Reckless lending and over-indebtedness are often viewed as a pair of correlatives. Reckless lending is often the main and proximate cause of over-indebtedness. A consumer is over-indebted when she/he does not have the ability to meet all her /his financial commitments at the end of a month. Section 80(1) (b) prohibits credit providers from entering into credit agreements that cause consumers to be over-indebted. When one considers this, it becomes clear that it was necessary for legislature to deal specifically with this cause of over-indebtedness.

WHAT CONSTITUTES RECKLESS LENDING?

Failure To Conduct A Credit Assessment On The Consumers As Required By The Act

Many credit providers fail to assess their clients/consumers before approving their credit applications. Failure to conduct a credit assessment on the consumer as required by the Act constitutes reckless lending. The requirements of the credit assessment that a credit provider has to conduct on a consumer are stated in section 82 of the Act. The section does not prescribe any specific assessment.

As already indicated above, the test of whether a credit agreement will cause over-indebtedness or whether a consumer is over –indebted is an objective test that is based on the standard of a reasonable person. The application of the test of the reasonable person is supported by the requirements stipulated in section 82(1). This section allows credit providers to use their own methods of assessment provided they are fair and objective. The word “objective” indicates a reasonable standard. Fairness means that the methods should not be discriminatory. It should be noted that discriminatory assessments are deemed by section 61(1) of the Act to be a violation of a consumer right which may be referred to the Equality Court.

The National Credit Regulator (NCR) is permitted by the Act to provide non-binding assessment guidelines. The National Credit Regulator is a juristic person created by the Act. It promotes and develops accessible credit markets and industry. In order to perform its regulatory role in the South African credit industry, the National Credit Regulator (NCR) needs to count on reliable information on the use of and access to credit as well as on the social impact of over-indebtedness, particularly among the most vulnerable groups. A credit provider can be compelled by the Tribunal to comply with the guidelines if the Tribunal is satisfied that:

- a. The credit provider has failed to comply with assessment requirements that are stated in the Act
- b. The assessments of the credit provider are not fair or objective. Although the assessment methods are not prescribed, Section 81 requires that they must at least consider the following:
- c. General credit repayment history of the consumer,
- d. Existing financial means, prospects, and obligations of the consumer.

Assessing existing obligations will require the credit provider to consider debt information listed on the National Credit Register. Section 69 of the Act requires all credit providers to list their current credit agreements on this register.

Reckless lending requirements do not apply to the following transactions (provided that agreement under points 1, 2 and 3 are reported to the NCR):

- a. School and student loans

- b. Emergency loans
- c. Public interest credit agreement
- d. Pawn transaction
- e. Incidental service agreement
- f. A temporary increase of a credit limit in credit facility

Because the assessment is a necessary preventative measure against over-indebtedness, the Act views the failure to do it as reckless lending regardless of whether or not the lending actually results in over-indebtedness.

Entering Into An Agreement With A Consumer Who Does Not Understand Or Appreciate The Costs, Risks, And Obligations Of The Credit

Where a consumer does not understand or appreciate the costs, risks and obligation of a credit agreement, the purpose of deeming the agreement reckless extends beyond the question of over-indebtedness.

Entering Into A Credit Agreement That Will Make A Person Over-Indebted

This covers situations where a credit provider, after conducting an assessment, deliberately or negligently enters into an agreement with a consumer knowing that it can cause over-indebtedness. This involves a person though over-indebted was able to still get more credit and insurance policies.

THE ROLE OF DEBT COUNSELLORS TO RECKLESS LENDING OR THE SOLUTION TO RECKLESS LENDING

A debt counsellor generally refers to individuals who assist members of the public who may be over-indebted to pay off their debts. He acts as a bridge between consumers and credit providers in order to alleviate stress and provide guidance to both parties. Debt counsellors have an important role to play in detecting reckless agreements.

Section 86(6) expressly states that a consumer can apply to a debt counsellor for a declaration of reckless lending. Section 85 allows a magistrate to refer a matter to debt counsellor for investigation regarding reckless lending.

The regulators provide details on the factors debt counselors should consider when determining reckless credit. They are required to consider all the requirements of reckless lending prescribed for credit providers in section 80 of the Act and the following;

- a. "The level of indebtedness of the consumer after that particular agreement was entered into; and
- b. Whether, when that particular credit agreement was entered into, the total debt obligations including the new agreement exceeded the net income reduced by minimum living expenses;
- c. The consumers' bank statement, salary or wage advice and records obtained from a credit bureau;
- d. Any guidelines published by the National Credit Regulator proposing evaluative mechanisms, models and procedures in terms of section 82 of the Act."

It appears from the reading of section 86(7) that the only time a recommendation can be made to the magistrate by the debt counselor is if the consumer is over-indebted. The debt counselor can request the court to declare a credit agreement reckless and suggest, inter alia, that the obligations of the consumer be set aside or suspended.

CONSEQUENCES OF RECKLESS LENDING

Nevertheless, reckless lending is a threat to both individual existence of companies and the economy of the country. The consequences of a reckless agreement are determined to a large extent by the discretion of

magistrate. Section 83(1) allows to magistrate to declare an agreement reckless if the magistrate is of the view that a credit provider did not conduct an assessment as required by the Act or that the consumer did not generally understand or appreciate the risks, costs and obligations of the agreement he may:

- a. Set aside some or all obligations of the consumer in the agreement.
 - b. He may suspend the force and effect of the agreement to a determined. If the magistrate concludes the reckless lending resulted in over-indebtedness of the consumer and such over-indebtedness still exists he may:
 - c. Suspend the force and effect of the agreement to a determined date
 - d. Restructure the obligations of the consumer under any other agreement. For instance, he may extend the duration of the agreements, reduce the payment amounts, postpone the dates of payment etc.
- During the suspension period of an agreement, the agreement provider is prohibited from charging costs such as fees and interest, or demanding payments from the consumer.

CONCLUSION

The credit is used mostly by consumers for consumption goods. However, nearly half of the group is unable to pay off their credit.

In terms of section 87 (1) (b) (i) magistrate court may make an order contemplated in section 83 (2) or (3) to declare any agreement to be reckless and it may make an order-

-setting aside all or part of the consumer's rights and obligations under the agreement, as it determines just and reasonable in the circumstances; or

-suspending the force and effect of that credit agreement in accordance with subsection (3) (b) (i).

The court can only make an order after an application by a debt counsellor or by the consumer after the debt counsellors has rejected his application. The court cannot without application by a debt counsellor declare a credit agreement reckless because it does not have a general power to interfere with the contractual obligations and rights of any party to credit agreement. The South African courts do not apply section 83 properly because the debt counsellors fail to take reckless cases to court. The Act is silent on referring reckless credit agreements to court.

I argue for the implementation of section 83 of the National Credit Act, but the implementation should punish companies who practice reckless lending. Debt counsellors should when referring over-indebtedness matters to court, also make applications for reckless lending where it is applicable. The courts should where reckless lending case are referred to them, give harsh orders to credit providers to discourage them from practicing this illegal and unethical conduct in business negotiating and deal making. Nevertheless, reckless lending is a threat to both individual existence of companies and the economy of the country. This paper becomes more relevant, when one considered that hitherto, the research opinions of academics have not had much influence on the issue of reckless lending. I conclude on the outcome of the research findings that if ever possible to do; reckless lending is a threat to our economy.

In conclusion I want to urge all the affected parties to contribute to establishing an effective debt review process in order to deal with the impact of the financial crisis in a responsible manner while protecting consumers and minimizing any negative impact on the financial sector.

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THE PRESENCE OF FOREIGN SHAREHOLDERS IN THE ITALIAN COMPANIES: AN EXPLORATIVE STUDY TO IDENTIFY IF FOREIGN-OWNED FIRM HAVE AN HIGHER PROFITABILITY, AND A MORE STRUCTURAL EQUILIBRIUM THAN DOMESTICALLY-OWNED ONES

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ABSTRACT

Does the presence of foreign shareholders exert influence on the characteristics of the company and the management decisions? The objective of the present paper is the identification of the significant similarities and difference between the Italian foreign-owned companies and the Italian domestically-owned ones. The similarities among the Italian foreign-owned company will be analyzed splitting them up by foreign shareholders rate.

Ten variables were used in order to analyze the performance, the structural and the attitudinal characteristics of the above-mentioned companies.

INTRODUCTION

There is a general assumption in much of the literature on Foreign Direct Investment (FDI) that foreign-owned firms have higher productivity (Barbosa and Eiriz, 2009), profitability (Boateng and Glaister, 2002) and innovation (Love et al., 2009; Sourafel et al., 2008) than domestically-owned ones.

The reason for internationalization relies on the: i) gap of technology and innovation between two countries (Vernon, 1966), ii) the possibility to avoid transaction costs (Williamson, 1975), iii) the benefits in performance linked to act in different markets at the same time (Dunning, 1988; 1995).

There is a strong theoretical and empirical evidence of a link between external ownership and business performance. Several research on the consequences of FDI on host countries were carried on, confirming the effects of the presence of multinationals on domestic market at firm-level. As the host country is concerned, numerous surveys were conducted with reference to:

- North America (Canada: Globerman et al., 1994; USA: Keller and Yeaple, 2009; Ford et al., 2008);
- South America (Uruguay: Kokko et al., 2001; Colombia: Kugler, 2001);
- Europe (Spain: Barrios and Strobl, 2002; UK: Harris and Robinson, 2004; Germany: Pfaffmann and Michael, 2001);
- Asia (Indonesia: Sjöholm, 1999a, 1999b; Japan: Ahmadjian and Robbins, 2005; Ito and Fukao 2005; Cina: Buckley et al., 2007),

and so on; but a specific research concerning the presence of foreign shareholders in the domestically-owned companies has never carried out. This is why the authors decided to investigate if the presence of foreign shareholders influences the management decisions. Once identified the aim of the present paper, the matter was which ratios should have been used to verify the goal.

Usually, international business studies consider a broad range of performance measures (e.g. ROE, ROI, ROS, ROA) and analyze the differences in performance between foreign-owned companies and domestically-owned

ones. But performance measures may fluctuate from one year to the next and may be influenced by some temporary unusual circumstances occurring in that year, not representing the long-term true trend (Meric et al., 2002). The taxation system may influence the income statement as well. Thus these approaches are not exhaustive.

Therefore, according to Sullivan (1994), three broad firm-based measures must be considered, concerning with performance, structure and attitude. By company attitudes the authors mean all those companies' traits (e.g. intangible and fixed asset, value added per employees) that characterize their structures. Only a cross analysis of all these broad firm-based measures can explain the similarities and the differences between partially foreign and completely domestically owned companies.

The objective of the present paper is the identification of the significant similarities and difference between the Italian foreign-owned companies and the Italian domestically-owned ones; in order to test if the presence of foreign shareholders:

H1 *exerts an influence on the management decisions;*

H2a *enhances the company performance;*

H2b *stabilizes the structural equilibrium of the company.*

It will be even analyzed the similarities among the Italian foreign-owned company, splitting them up by foreign shareholders rate.

DATA and METHODOLOGY

The data of the present study are drawn from AIDA database; and refer to the three above-mentioned broad-firm base measures (e.g. performance, structure and attitude). Our database is composed of 1,212 observations. The number of companies divided by foreign-owned firms (417) and domestically-owned ones (795) varies because we excluded those with missing values in their balance sheets and revenues lower than 100,000,000 Euros. The last constraint has been used in order to compare domestically-owned companies with foreign -owned ones. Usually foreign-owned companies are not small-in-size firms. The numbers of firms included in the study are presented in Table 1.

Table 1: Characteristics of the sample

Domestically-owned companies A	Foreign-owned companies			
	Foreign shareholders rate			
	Lower than 25% B	Between 25% and 49,99% C	Between 50% and 80% D	Higher than 80% E
795	62	52	27	276

Given the absence of a set of universally – accepted indicators of the financial/patrimonial/economic state of companies, this research, based on a review of the available literature and the best practice used by managers, uses the measures presented in Table 2.

Table 2: Variables

	SYMBOL	MEASURE
Performance		
	ROE	<i>Net income / Shareholder's equity</i>
	ROS	<i>Net profit / Sales</i>
	EBITDAm	<i>EBITDA / Sales</i>
Structure		

	WORKING CAPITAL per employee (WCpE)	$(Current\ asset - Current\ liabilities) / \#\ of\ employees$
	DEBT TO RATIO (DtR)	$Equity / Liabilities$
	CURRENT RATIO (CR)	$Current\ asset / Current\ liabilities$
	CURRENT DEBT RATIO (CDR)	$Current\ liabilities / Overall\ debt$
Attitude		
	INTANGIBLE ASSET RATIO (IAR)	$Intangible\ asset / Total\ asset$
	FIXED ASSET COVERAGE RATIO (FACR)	$Fixed\ asset / (Equity + Long\ term\ debts)$
	VALUE ADDED per employee (VApE)	$Value\ added / \#\ of\ employees$

RESULTS

The Multivariate Analysis of Variance (MANOVA) is used in this step to compare the means of the measures presented in Table 2 for the five relevant groups.

The analysis of variance is a technique commonly used to compare the characteristics of different groups of firms.

The statistics of the analysis indicate significant differences among the groups of companies.

Here below, the table 3 presents the results of the MANOVA:

Table 3

	<i>A</i>		<i>B</i>		<i>C</i>		<i>D</i>		<i>E</i>		<i>F</i>	<i>Sig.</i>
	μ	σ	μ	σ	μ	σ	μ	σ	μ	σ		
ROE	6,16	18,78	5,24	18,27	8,18	15,71	3,07	37,74	3,01	22,9 1	1,57	,178
ROS	4,89	5,87	6,75	6,07	6,44	6,77	7,24	7,20	3,88	5,05	5,76	,000 **
EBIT DAm	,097	,084	,11	,073	,10	,073	,13	,095	,08	,067	3,85	,004 **
WCp E	-12,59	145,5 9	7,97	122,8 8	49,2 0	201,2 5	-61,81	123,46	23,67	142, 17	5,97	,000 **
DtR	27,38	17,20	36,20	15,71	37,3 3	20,32	32,20	18,47	30,74	17,5 4	8,27	,000 **
CDR	,80	,185	,77	,16	,82	,16	,74	,22	,88	,18	10,9 6	,000 **

CR	,74	,51	,94	,69	,978	,72	,75	,42	,83	,62	4,50	,001 **
IAR	20,82	24,45	30,95	26,14	24,9 6	26,60	34,75	34,11	23,20	27,3 1	4,27	,002 **
FAC R	1,97E2	733,4 9	1,45E 2	101,8 9	1,66 E2	141,2 7	1,46E 2	163,55	2,46E 2	479, 31	,54	,701
VApE	85,92	52,33	87,80	65,74	77,8 7	31,37	90,35	40,50	95,51	48,2 7	2,33	,054 *

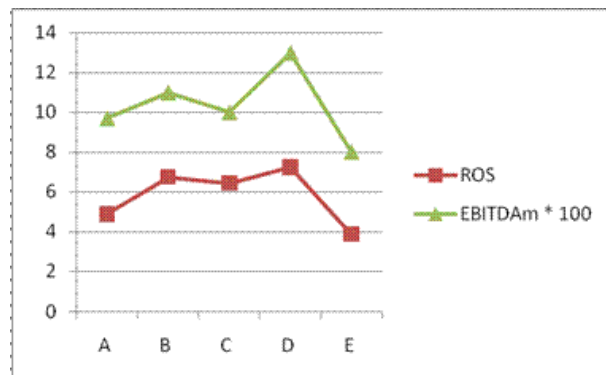
It is clearly evident that 8 measures out of 10 are significantly different among the groups, confirming that the presence of foreign shareholders influences the management decisions (H_1).

As both the second hypotheses are concerned, it is necessary to make some careful consideration. It would be inaccurate to compare different measures and to assert peremptorily the right percentage of foreign shareholders in the Italian companies; without delving deeper into the matter.

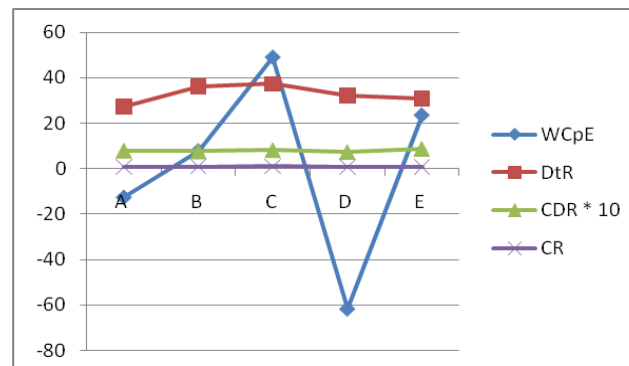
This is why, before drawing the conclusion, it seems worthwhile to the authors to show the graphics concerning the average values (Table 3 – column μ) of those ratios that are significance.

The following three graphics, together with the previous tables, let both the authors and the readers understand which group (e.g. A, B, C, D, E) can be considered the best combination of Italian and foreign shareholders. It might even be that each of the above mentioned groups presents strengths and weakness.

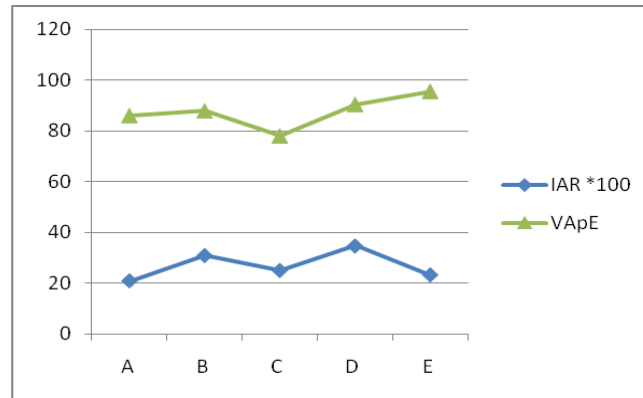
Graphic 1 – Performance indicators



Graphic 2 – Structural indicators



Graphic 3 – Attitudinal indicators



With reference to the performance indicators, group D is the most effective; meanwhile the companies that pertain to the group C have the most stable structural equilibrium. Group D invests more in intangible assets (thus in research and development) than the other groups and employees of the group E have the highest value added.

Regardless of which ratio is analyzed, foreign-owned companies have always better results (H_{2a}) and a stable structure (H_{2b}). Thus the hypothesis 2 is confirmed.

Table 4 summarizes the results.

Table 4 – Hypotheses confirmation

	Confirmed	Refused
H_1 (management decisions)	X	
H_{2a} (enhance company performance)	X	
H_{2b} (stable structural equilibrium)	X	

CONCLUSION

There is a strong competition between companies to capture a greater market share.

The analysis used in the present paper reveals the strengths and the weakness of the companies in the same industry and market (the Italian market) but with a difference in the origin of their shareholders.

The knowledge of the characteristics of these companies could help corporate managers to equip themselves with a structure and an attitude that let them to be evenly-matched with competitors.

Like never before, understanding the key skills and factors to succeed even in bad time is of primary importance. The confirmation of both the hypothesis proves that the foreign shareholders and the subsequent foreign experience and ideas should be considered as a company's asset and a condition *sine qua non* to increase the company's market share.

Several social and psychological theories stress the importance of cultural values, educational background and experiential knowledge in the shareholders decision-making process. These items can be considered the antecedents of the shareholders behavior. Even though it is not easy to identify and measure the company or the shareholders behavior, the ten variables adopted in this work can be considered a good proxy of it.

However, further research should explore non-financial metrics, such as the gender of the Board of Directors or their specific country of origin, in order to identify the most influential factors that affect the company results.

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ENDNOTES:

[1] Even if this paper is the result of the shared research of both the authors, the paragraphs n. 1 and 4 can be attributed to Alberto Marino and Giovanna Dossena; the paragraph n. 2 can be attributed to Cristina Bettinelli; the paragraph n. 3 can be attributed to Andrea Manzoni.

LEARNER PREGNANCY: A STUDY OF THE IMPACT ON THE HEALTH, EDUCATION AND LEGAL RIGHTS OF PREGNANT TEENAGE GIRLS IN THE MPUMALANGA AND LIMPOPO PROVINCES OF SOUTH AFRICA

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ABSTRACT

Learner pregnancy is a problem faced all over the world, not only in poverty stricken and developing countries, but also in first world countries such as the United Kingdom and the United States of America. In South Africa pregnancy rates among school going girls are escalating for various reasons. Premature pregnancy has an impact on several aspects of a young girl's life, including her health and education. There are also different legislative issues impacting on learner pregnancy. This is a preliminary paper which serves as an introduction for future research to be carried out focusing on the impact of learner pregnancy on the health and education of the affected girls in the South African provinces of Mpumalanga and Limpopo, as well as the legislative issues involved in this phenomenon.

INTRODUCTION

Teenage pregnancy is rather common place in South Africa. In a society where the majority of individuals only enter into a marital relationship relatively late in life, pre-marital sexual activity is the norm from an early age. One of the effects of this early sexual activity is teenage pregnancy. Although teenage pregnancy is not necessarily socially acceptable in a largely Christian society, it is a situation that the community is faced with on a regular basis and a degree of tolerance is present.

Mkhwanazi (2010) notes that the majority of teenage pregnancies occur among poor black and colored South Africans. It is also noted that becoming pregnant in ones teenage years is perceived to be socially, economically and physically deleterious for the teenage girl and her baby.

The majority of the girls falling pregnant at an early age did not plan on falling pregnant, and are not prepared for the transition from teenager to teenage mother. The baby born from an unplanned teenage pregnancy is often unwanted. Many of the young girls falling pregnant are not emotionally mature enough to handle the situation, especially if they are themselves living in desperate circumstances of poverty and, oftentimes, sexual abuse.

When a teenage girl falls pregnant prematurely there are certain health risks involved, such as an elevated risk of maternal death, obstetrics complications, low birth weight and a high risk of infant mortality. If the prospective teenage mother receives the necessary and timely quality antenatal care much of the risks involved in premature pregnancy can be prevented. The problem faced in South Africa is, however, that the majority of learners falling

pregnant is living in extreme poverty and struggles to access the proper antenatal care required to ensure the good health of the mother and baby.

The youth of today are the best educated that they have ever been in the history of South Africa. Most young people understand the importance of education and aspire to improve their lives through education. Girls falling pregnant whilst still attending school has an increased chance of dropping out of school and not completing their education. The probability of a teenage mother of continuing with tertiary education decreases vastly.

In a rights-based society, no girl should be denied access to education just because she fell pregnant as a school going child. Although the South African Constitution and the School's Act entrenches the right of all children to a basic education, the reality is that the implementation of these laws are very inconsistent. Pregnant learners are often stigmatized, suspended, or even expelled from school when they experience premature pregnancy.

Teenage pregnancy has an impact on many areas of the pregnant girl's life. The lives of her baby, family and the father of the baby are also affected. This paper will serve as a foundation for future research on the three focus areas identified, namely health, education and legislative issues.

LITERATURE STUDY

The purpose of this study as well as future research to be carried out on the focus areas are to document, review and critically analyze literature on learner pregnancy. The specific objectives are as follows:

- To review existing literature and conduct statistical analyses to establish the prevalence of learner pregnancy
- To assess the individual impact of premature pregnancy on health and education through interviews
- To identify legislative issues impacting on learner pregnancy

RESEARCH METHODOLOGY

The research methodology used in this paper is a largely qualitative in nature. By reviewing existing literature, an overview of the impact of learner pregnancy on the focus areas of health, education and law is given. The research methodology used for future research on the focus areas will be expanded to combined research methods.

Statistical data will be gathered through the distribution of questionnaires in identified regions of the Mpumalanga and Limpopo provinces of South Africa. Interviews will also form part of the quantitative research to determine the impact of learner pregnancy on individuals affected by this phenomenon.

HEALTH

Teenage pregnancy involves health risks for both the mother and the baby. Research has indicated that woman who become pregnant during their teenage years have an increased risk of complications during childbirth. These complications include the risk of going into premature labor. Incomplete maternal growth increases the risk of obstructed labor.

Another risk involved in premature pregnancy is an increased chance of maternal death. The risk of maternal death in women between the ages of 15 and 19 is estimated to be twice that of women in the 20-24 age groups. The Millennium Development Goals defined by the Heads of State in 2000 recognizes the high number of maternal and infant deaths internationally and urges countries to reduce both maternal and infant deaths by 2015. One of the indicators in monitoring the progress made in reaching these goals are the reduction of adolescent fertility.

Evidence exist that competition for nutrients between the teenage mother and unborn child, will favor the still growing mother, placing the offspring at risk of low micronutrient deficiencies like iron and calcium. Iron

deficiency is associated with impaired cognitive functioning, lower school achievement, as well as lower physical and work capacity.

If the teenage mother does not receive proper quality antenatal care during her pregnancy this may lead to a folate deficiency due to a lack of ingesting sufficient amounts of folic acid. A woman suffering from folate deficiency is more likely to give birth to a premature baby with a low birth weight. Folate deficiency also increases the risk of a baby born with neural tube defects.

Low birth weight is a significant risk factor in infant mortality. The second largest killer of children in South Africa, after HIV/Aids, is low birth weight. To counter the effects of low birth weight, the mother needs to breastfeed her baby. Mothers giving birth to unwanted babies are less likely to breastfeed, resulting in malnourished children, suffering from developmental problems, because the mothers in most cases cannot afford alternative suitable nutrition for the babies.

Another risk a teenage mother runs is iodine deficiency which may lead to spontaneous abortion, as well as a range of neurological and intellectual impairments.

In a country with a very high prevalence of HIV/Aids it is important to note that although these two issues are regarded as separate, both are the consequence of unprotected sexual activity. Some research studies show that pregnancy and lactation increase the susceptibility to HIV-infection through immunological changes induced during pregnancy.

Some of the other risks associated with physiological immaturity in pregnancy include cephalo-pelvic disproportion, toxemia, hypertension, vago-rectal or urethral fistulae and placental abruption.

The child born to a teenage mother also suffers adverse health effects. Research indicates that children born to teenage mothers are more likely to suffer from health problems than children born from older women are.

TABLE 1: 2006 TO 2009 SNAP

(Source: Mpumalanga Provincial Department of Education, South Africa)

		GR 1	GR 2	GR 3	GR 4	GR 5	GR 6	GR 7	GR 8	GR 9	GR 10	GR 11	GR 12
2006	Male	45,970	43,124	44,177	42,266	39,038	35,379	33,864	38,074	34,784	40,107	33,575	18,576
	Female	41,612	40,526	42,050	38,726	37,732	34,360	32,465	37,549	34,931	42,742	38,201	22,232
2007	Male	49,960	45,325	46,396	48,426	43,487	41,041	36,031	43,004	38,367	47,622	40,672	24,591
	Female	46,093	41,956	43,938	45,649	41,872	40,149	35,026	41,571	39,695	49,019	45,701	29,359
2008	Male	47,201	45,379	44,864	47,035	46,485	41,722	39,825	41,430	40,509	44,336	39,082	27,275
	Female	43,383	42,093	41,892	43,531	45,371	41,110	39,391	40,676	40,105	45,947	43,084	31,294
2009	Male	45,766	41,894	43,425	44,525	44,355	43,144	39,663	42,995	37,942	43,839	35,873	25,415
	Female	41,529	38,720	40,613	40,888	41,640	42,973	39,107	41,640	38,230	44,973	40,683	29,589

EDUCATION

This section in the paper deals with academic performance of girl learners. Education is important to all human beings in general, and in particular, to these girls in order to break the poverty cycle in which most of them are trapped (Chigona and Chetty, 2007). Various political parties and organizations are expressing a concern on gender inequalities in the economic development agenda; hence this section will attempt to reflect whether the girl learners do cope with their schooling, at the same time, becoming mothers. The premise this paper work on is of the opinion that girl learners who become mothers do not continue with schooling. Gouws and Kruger (1994: 83) argue that challenges faced by girl learners “may be exacerbated because the girls are in a crucial

phase of their lives as they are experiencing the integration of their personal identifications, abilities and opportunities available in society”. Table 1 below, show the dropping numbers of learners in the Mpumalanga Province for the past four years.

A study conducted by Grant and Hallman (2006) examined the school dropout and poor performance by pregnant learners in South Africa. The objectives of their study were to examine the factors associated with learner pregnancy, as well as, the likelihood of school dropout and subsequent re-enrolment among pregnant learners. They conclude their study by arguing that in most cases the birth of a baby marks the end of schooling for a learner. The above table qualifies the fact that high level of school dropout occurs due to pregnancy. Based on the above table, the study acknowledge the fact that school dropout do happens in male learners as well however, the factors related to the male learners dropout do not form part of this study. For example, in 2009, female learners entering school (grade 1) were 41 529 and in the last schooling grade (12) were 29 589. Thus, it can be argued that, this statistics indicates that there are great social challenges and problems that these learners may be experiencing to an extent that they dropout from school.

Literatures on school dropout provide many reasons for dropout by pregnant learners. Chigona and Chetty (2007) argue that mothering, peer pressure and school environment negatively affect “teen mothers” in coping with schooling. They continue that both pregnancy and parenting is the leading reasons learners’ dropout of school. Theron and Dunn in Chigona and Chetty (2007) support their arguments and putting forward that adolescent child bearing is especially disruptive to the education process of learners, and many teen mothers leave school and never return. The authors believe that an educational programme be introduced as a matter of urgency in both primary and secondary schools. Further study on this matter in both identified provinces is ongoing and findings on the academic performance will be presented on the publication.

LEGAL IMPACT

International Background

The United Nations adopted the Universal Declaration of Human Rights on 10 December 1948. This Declaration is the cornerstone of human rights for all human beings worldwide. Article 26 of the Universal Declaration of Human Rights states very clearly that everyone has the right to education and that elementary education is compulsory.

Since 1948 this right to education has been entrenched in various conventions, declarations and covenants, including the International Covenant on Economic, Social and Cultural Rights (Article 13) and the Convention on the Rights of the Child (Article 28).

In April 1998 the United Nations Commission on Human Rights adopted a resolution (1998/33) appointing a Special Rapporteur with the mandate of focusing on education. After the Commission on Human Rights was replaced by the Human Rights Council in 2006, the mandate of the Special Rapporteur on education was extended (Resolutions 5/1 and 8/4). The Rapporteur’s mandate gives, as some of the main tasks, that the Rapporteur must include a report on the progressive realization of the right to education, including difficulties experienced in the implementation of this right, and to take into account gender considerations, in particular the situation and needs of the girl child, and to promote the elimination of all forms of discrimination in education.

The Convention on the Elimination of all forms of Discrimination against Women (CEDAW) states in Article 10(f) that focus should be given on ways to reduce the drop-out rate of female students.

In September 2000 189 states adopted the Millennium Declaration and 147 heads of state and governments signed this declaration. The Millennium Declaration contains eight Millennium Development Goals to be achieved by 2015. These eight goals respond to the world’s main development challenges. Goal 2 of the Millennium Development Goals is to achieve universal primary education. The target for this goal is to ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

Goal 3 is to promote gender equality and empower women. One of the targets of this goal is to eliminate gender disparity in primary and secondary education.

The African Charter also promotes the right of education in Africa in Article 11 of the Charter on the Rights and Welfare of the African Child. The elimination of discrimination based on gender in education is addressed in the Protocol to the African Charter on the Rights of Women in Africa.

As South Africa is a signatory to all the above the South African government has a duty to promote the right to education and to take positive steps to implement this right.

South African Context

The South African Constitution (Act 108 of 1996)

After the first democratic elections in South Africa, held in April 1994, the South African government drafted first the Interim Constitution of South Africa (Act 200/1993) and later the Constitution of South Africa (Act 108/1996). The Constitution is the supreme law in the country, meaning all existing and future legislation needs to be in accordance with the Constitution and must be based on the fundamental values of equality, freedom and dignity, on which the Constitution is based.

S9(1) of the Constitution states that all people are equal. The state is prohibited, by s9(3) to unfairly discriminate against any person on different grounds, including sex, race, gender and religion.

The South African Constitution contains one of the most progressive chapters on human rights in the world, as it not only contains civil and political rights, but also socio-economic rights. This has the effect that the South African government can be held legally responsible if they fail to implement any of the socio-economic rights provided for in the Constitution.

Children's rights are entrenched in s28 of the Constitution. This includes the right to be protected against maltreatment, abuse and degradation. These rights are not subject to progressive realization, but immediate rights.

S29 of the Constitution states that every person in South Africa has the right to receive basic education. To give effect to the provisions of s28 and s29 of the Constitution, the South African government drafted and implemented several pieces of legislation dealing with these issues.

South African Schools Act (Act 84 of 1996)

One of the first pieces of legislation introduced by Parliament providing for the people's right to education was the South African Schools Act. The Schools Act has as its purpose the provision of a uniform system for the organization and governance of schools.

S3 of the Schools Act clearly states that school attendance is compulsory for children from the age of 7 to the age of 15, or ninth grade, whichever comes first. Any person, including a parent or guardian, preventing a child from attending school, without justifiable reason, is committing an offence.

Learners are protected against unfair discrimination by public schools in s5(1) of the Schools Act. S5(1) states clearly that a public school must admit learners and serve their educational requirements without unfairly discriminating against the learners in any way. S5(2) of the Schools Act goes further to say that no governing body of a public school may administer a test, or authorize any other person to administer any test, to determine whether a student may be admitted to a school.

Criminal Law (Sexual Offences and Related Matters) Amendment Act (Act 32 of 2007)

At the Vienna World Conference, held in 1993, gender-based violence was reinterpreted as a form of discrimination against women. This means that violence against women is now regarded as a human right violation. Article 19 of the Convention on the Rights of a Child prohibits all forms of mental or physical violence against children, including a girl child. Similarly the Convention on the Elimination all forms of Discrimination against Women (CEDAW) and the Declaration on the Elimination of Violence against Women (DEVAW) urges state parties to take all necessary measures to protect women against all kinds of violence (Recommendation 19). The Recommendation recognizes that women of all ages are subject to violence of all kinds, including battering, rape and other forms of sexual assault.

UNICEF found that up to 40% of women between the ages of 15 and 24 falls pregnant after forced sexual intercourse (Report 2006: paragraph 9).

The Constitution of South Africa enshrines the right to freedom and security of the person, which includes a person's right to be free of all forms of violence with special focus on ensuring that children's best interest is protected in all circumstances. South African legislation protects women and children against rape, statutory rape and other forms of sexual assault in the Sexual Offences Amendment Act 32 of 2007. S3 of this Act defines rape as:

"3. Any person ('A') who unlawfully and intentionally commits an act of sexual penetration with a complainant ('B'), without the consent of B, is guilty of the offence of rape."

S15 of the Sexual Offences Amendment Act states that any person who has sexual intercourse with a child between the ages of 12 and 16 commits statutory rape, even if the child consented to the act.

Impact on Pregnant Learners

It becomes clear from all the above mentioned international and South African laws that girl learners should be protected against unfair discrimination on the ground of pregnancy. This also includes the right of the pregnant learner to continue with her education. Learners who became pregnant whilst still at a school going age should not be punished because of the pregnancy, but supported by their parents, the community and the schooling system, in continuing with their education. Although the South African Constitution and the Schools Act prohibits unfair discrimination against pregnant learners, the question is whether the girls are allowed to continue with their education in practice.

The section in this paper dealing with legislative issues only serves to highlight the relevant laws pertaining to pregnant learners. Future papers will discuss this matter in depth to determine whether girls in this situation actually receive the rights they are entitled to.

CONCLUSION

It is clear that teenage pregnancy is a very real problem in South Africa. The impact of premature pregnancy on the health and education of the affected girls cannot be denied. They are marginalized by the community and lives with the stigma related to an unwanted and unplanned pregnancy. Girls who are still children themselves give birth to children and need to take care of these babies, often to their own detriment.

Pregnant learners are in many instances discriminated against by the community and the school system. This is unconstitutional and should urgently be addressed by the South African government. The legal rights of teenage girls are infringed upon in a variety of ways. As children they are protected by several pieces of legislation affording them protection, but the reality is that the girls in this position often do not receive the protection they are entitled to.

Further research in the three focus areas, as well as other relevant areas, is necessary to determine the real extent of the problems affecting pregnant teenage learners. The authors of this paper plan to continue with this very relevant research and present their findings in the form of separate articles in future.

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CORPORATE GOVERNANCE AND SOCIAL RESPONSIBILITY: COMPARING CORPORATE PRIORITIES ACROSS INDUSTRIES IN SOUTH AFRICA

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ABSTRACT

The paper generally seeks to investigate and compare corporate priority differences among top South African organizations as far as corporate social responsibility, a governance issue, is concerned. Empirically tested and globally accepted Corporate Social Responsibility Reporting (CSRR) dimensions such as environment, community, diversity, employee relations and human rights will be used as criteria/standard against which organizations (and subsequently industries) will be quantitatively measured and compared against. Results are expected to act as an instrumental barometer for policy makers to make a cross-industry check on CSR activities in-order to better align them with the national development agenda.

INTRODUCTION

Corporate governance (CG), corporate social responsibility (CSR) and sustainability are now globally at the nexus of all strategic managerial decisions. There is renewed pressure; real and/or perceived, on organisations to be accountable not only to their stockholders, but also to other various stakeholders. Organisations now need to demonstrate that they are not only there to do business but are also willing to do that business right and with due respect to all those that might be affected by their operations. This renewed business obligation is partly due to the rising global business competition as well as pressure from the now-highly-conscious stakeholders ranging from customers, employees/labour groups, national governments, human rights groups, environmental groups and even stockholders. This pressure has been augmented by the increasing global importance of sustainable development amidst rising need to mitigate climate change, human rights abuses, poverty, economic recessions and the threatened natural environment. The United Nations and its various subsidiaries, under the auspices of the Millennium Development Goals, has since intensified the CSR pressure through vigorous humanitarian campaigns around issues of poverty, HIV/AIDS, climate change, labour and natural resources among other issues.

LITERATURE AND RESEARCH PROBLEM

Despite current efforts to develop uniform global corporate governance standards through such initiatives as the Global Reporting Initiative (GRI), corporate governance and the related CSR activities remain heterogeneous both globally and at national levels. Significant differences exist in terms of CG compliance levels and CSR priorities (and practices). Differences have mainly been empirically noted between developed nations and emerging economies. Much of CG, CSR and sustainability activities are reported in companies' annual reports or special separate CSR/sustainability reports. In light of this, Hilton and Gallant (2008) argued that, despite the obvious benefits to companies and investors, sustainability reporting has yet to become a common practice in emerging markets since the concept of sustainability itself is relatively new in these countries. Nonetheless, South Africa remains the leading country in most of the sustainability disclosure categories, probably due to the Johannesburg Stock Exchange (JSE) listing requirements that mandate use of the GRI. Contrastingly, the

concept of sustainability is still only just beginning to take hold in China (Hilton & Gallant, 2008). Sectoral reporting differences have also been revealed from among various emerging economies, with the energy sector emerging the leader by GRI standards, followed by telecommunications and then materials (Hilton & Gallant, 2008). In a related company by company study comparing corporate social responsibility reporting (CSRR) of South Africa (and other emerging market economies) with that of leading economies, it also emerged that the frequency and level of CSRR in South African companies was significantly higher than that of the Fortune Global 100. This indicates that emerging market economies may now be more receptive to stakeholder concerns and social responsibility than peer institutions in leading economies and are also more willing to convey social responsibility in their disclosure practices (Dawkins & Ngunjiri, 2008).

In South Africa, the recent amendments to the King I and II reports on corporate governance, the subsequent 2009 launch of the King III report and the rise in the number and complexity of development initiatives by the national government is one major reason for the complex nature of CSR in the country. For instance, the King II report plainly pressures companies to report on their policies, procedures, systems and commitments to the social, ethical, safety, health and environment issues. It further puts emphasis on safety and occupational health objectives, including HIV/AIDS, environmental reporting and following the production options with the least impact on the environment (King II report summary of code). The report also obliges organizations to give consideration to social investment policies, including Black Economic Empowerment (including procurement and investment), human capital development (including number of staff, progress towards equity targets, training, opportunities for women and the previously disadvantaged). According to the *Institute of Directors in Southern Africa Integrated Sustainability Report* (2007), the King II report was instrumental in diverting business from status quo business practice to practices that will contribute to long term sustainability growth within a globalised economy.

Pressure is also on South Africa, as the regional socio-economic and political powerhouse, to lead the sustainable development way particularly in terms of mitigating poverty (and other related fundamentals); climate change; the regional energy crisis; environmental ills; poor governance and human rights abuses. Added to these globalisation pressures, there is also the more politically intense and increasing pressure on the government to provide comprehensive social services. The direction and especially the turbulent nature of CG and CSR in South Africa has also been shaped by the need for the country to deal with domestic challenges such as affirmative action and black economic empowerment, spiraling economic crimes such as fraud and money laundering, as well as the reality of AIDS and poverty (Rossouw, van der Watt & Malan, 2002). Being quite cognisant of the importance of the corporate world in this complex and huge developmental mandate, the government is calling upon businesses to play a more active role in society. Indeed, it has also been argued that firms derive enormous benefits from participating in CSR activities.

Given all these CSR complexities in South Africa coupled with the fact that the country is globally emerging as one of the leaders in CSRR, it might be worthwhile for a study to focus specifically on the CSR priorities and practices of the leading South African organisations. Although, as noted above, some cross national studies involving South Africa have been carried out, a cross industry study on the CSR priorities exclusively for South Africa, as the leader in CSR disclosures, is what has generally been lacking from the recent CSR country studies.

RESEARCH OBJECTIVES

To determine any significant differences in CSR priorities among top South African organisations
To investigate if differences in CSR activities of organisations, if there are any, can be explained by industry affiliation

HYPOTHESIS

There are no significant differences in terms of CSR priorities among top South African organisations
There is no relationship between CSR priorities of top South African organisations and industrial affiliation

RESEARCH DESIGN AND METHODOLOGY

The methodology will be quasi-adopted from Dawkins and Ngunjiri (2008). The 50 biggest companies listed on the Johannesburg Stock Exchange will be used as study units. The 50 companies will be chosen carefully from 5 sectors, that is, 10 biggest companies from each sector, to suit the cross industry comparative purpose of the study. Accordingly, descriptive and annual report data for these companies would be gathered from the companies' Sustainability Reports. Five Corporate Social Responsibility Reporting (CSRR) dimensions that according to Dawkins and Ngunjiri (2008) have been used in many CSR studies will be used to compare organisations. These include *environment, community, diversity, employee relations and human rights*. After classifying CSRR into these five dimensions, numerical ratings will be assigned based on the type of CSR disclosure. Annual reports will be read and statements about the companies' CSR with regard to the five CSRR dimensions highlighted, and statements typical of four levels of activity will be identified, that is: no policy disclosure, policy description, policy activity, and policy outcome. Lastly ratings will be compared and the criteria recalibrated in the areas where discrepancies exist.

CONCLUSIONS, CONTRIBUTIONS AND MANAGERIAL IMPLICATIONS

A CSR cross industry comparative study will be an instrumental barometer for policy makers to check the CSR categories which have received or are receiving more priority from certain industrial sectors and those that are generally being neglected. Some pattern might emerge that can be of interest to the CSR stakeholders especially the government in its current efforts of better aligning the national developmental programs with sectoral CSR priorities.

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THE DOWNSIZING EFFECTS ON SURVIVORS: A STRUCTURAL EQUATION MODELING ANALYSIS

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ABSTRACT

Several effects of downsizing on the survivors have been empirically studied in scholarly research. These include effects such as job insecurity, organizational commitment and innovative behavior. We develop a model of how downsizing influences job insecurity and commitment, to better understand their impact on the innovative behavior of the survivors. We employ an empirical sample of 224 surveys to employees of four Portuguese firms, some that have been affected by downsizing and some that have not. An analysis of possible mediating effects permits us to conclude that the lack of commitment is not a mediating construct between job insecurity and innovative behavior. The innovative behavior seems to be primarily determined by job insecurity.

INTRODUCTION

Downsizing strategies are recurrently employed to turnaround firms in distress. The benefits of downsizing are well known and understood, especially those relating to the cost savings that emerge from firing personnel. Less well understood is how to the remaining members – the survivors – react. Notwithstanding is arguable that the future performance of firms is dependent on these personnel performance. Three constructs job insecurity, organizational commitment and innovative behavior, are some of the most used constructs in studies on downsizing effects and are often referred to as some of the effects on survivors. These three constructs are among the most cited in the extant research on the consequences of downsizing. Innovative behavior, in particular, may be particularly important to lead firms back to a track record of success.

In this paper we draw a tentative model of how downsizing influences perceived job insecurity and level of organizational commitment and whether and how these latter two constructs are related to the innovative behavior of the surviving human resources. Our study analyses the relation between perceived job insecurity and organizational commitment, as well as their relation with the innovative behavior of the workers who survived the downsizing (for which we use the case uses an international high technology firm, strongly reliant on the innovative potential of its human capital, and for those workers who did not suffer the consequences of a downsizing environment (we examine three other firms). In sum, the question we seek to answer is whether there is and what type of relationship is there between downsizing practices (so much in vogue and with several effects, like on job insecurity and organizational commitment) and workers' innovative behavior.

The paper is organized in four main parts. First we put forward the literature review and advance a set of theory driven hypotheses. The second section presents the methods and data used, which are followed by the results of the empirical tests. A broad discussion summarizes some of the main results, pointing out avenues for future research, limitations and implications for theory and practice.

Theory review and hypotheses

The downsizing phenomenon has become more intense over the last two decades, and has affected a considerable part of the business world. The extant research has delved into a multitude of downsizing effects, ranging from individual to organizational consequences, such as in the firms' financial performance (Suárez

González, 1999; Morrow, Johnson & Busenitz, 2004; Hillier et al., 2007) or stock market value (Worrell, Davidson III & Sharma, 1991; Wertheim & Robinson, 2000). Regarding individual consequences, we identify effects on managers who had to implement layoffs (handing out warn notices). Issuing warn notices significantly predicts increased self-reported health problems, sleep problems, feelings of depersonalization and also intent to quit (Grunberg et al, 2006), effects on survivors - the employees who were not laid off (Brockner, Spreitzer, Mishra, Hochwarter, Pepper, & Weinberg, 2004) – such as job insecurity (Sahdev, 2003), organizational commitment (Reisel & Banai, 2002; Sahdev, 2003), innovation (Fisher & White, 2000), stress (Gregory, 1999) or motivation (Mishra, 1996). A more intense focus on innovation has developed recently (Johannessen, Olsen & Lumpkin, 2001), especially looking at the innovative behaviors of workers and the factors that determine those behaviors (Kleysen & Street, 2001; Scott & Bruce, 1994; Jong & Kemp, 2003). Albeit the wealth of existing research, to our knowledge, no other study has examined the relationship between innovative behavior and downsizing, in particular the downsizing effects and their relation with the innovative behavior of workers.

Individual effects: Job insecurity

The effects of downsizing on individuals are varied and permit us identify distinct consequences on survivors. For instance, survivors have been shown to respond with lower commitment level and with insecurity respect to their jobs (Sahdev, 2003; Ugboro, 2003; Maertz et al., 2010) or even with lower creative / innovative behaviors (Fisher & White, 2000; Pech, 2001). Other scholars reach contrary findings, such as Hartley (1998) who found a positive association between job insecurity and lower organizational commitment.

As a result of the changes produced by downsizing decisions, job insecurity is one of the most important topics studied (Sverke & Hekkgreb, 2002). Job insecurity is the “perceived powerlessness to maintain desired continuity in a threatened job situation (Greenhalgh & Rosenblatt, 1984, pp. 438) and in a meta-analytic study about job insecurity conducted by Cheng and Chan (2007) found a negative association between job insecurity and job performance.

Ugboro (2003), using data from transport companies that underwent downsizing in the prior decade, examined its impact on survivors’ perceptions of job insecurity, organizational commitment and on their trust in management. The term insecurity included measures of perceived threats on the continuity of employment, employment characteristics and the feeling of being unable to control and prevent potential threats. These components are closely related to those identified by Ashford et al. (1989): employment, characteristics of the employment and perception of powerlessness. It seems clear thus, that downsizing increases job insecurity. According to Sahdev (2003), downsizing reflects on the loss of firm’s capabilities, learning and innovation. Job insecurity and lack of commitment are additional downsizing results. Sahdev presents other factors that might be related to the level of impact of downsizing on survival: the frequency (low or high) and the level of control that the organization imposes on the decision to downsize or not (reactive reasons or proactive reasons in the decision). For example, when there are reactive reasons and a low downsizing frequency, this probably results in a larger amount of work to do, low confidence levels, low commitment levels and job insecurity. When there are reactive reasons and high downsizing frequency, one can expect fatigue, cynicism, low confidence levels and job insecurity. When the reason is proactive combined with high frequency, this probably results in more self-sufficient workers, with high confidence and commitment levels. Finally, when there are proactive reasons with low frequency, two possible situations arise: one that negatively affects the worker’s psychological situation and another that positively affects the work quality owing to self-development.

In sum, several studies concluded that the organizational commitment was negatively affected by the job insecurity produced on survivors by the downsizing (Ashford et al., 1989; Hartley, 1998; Reisel & Banai, 2002; De Witte & Naswall, 2003). In this study we seek to confirm a potential positive impact of perceived job insecurity, in downsizing environments, on the lack of organizational commitment. An hypothesis may be formulated as follows:

Hypothesis 1: *The perceived job insecurity (INS) by employees, caused by downsizing, has a positive impact with their lack of organizational commitment (LC).*

Organizational Commitment

Organizational commitment has been under scrutiny since the 30’s (e.g., Barnard, 1938) and is understood as the willingness of the worker to devote energy and loyalty to an organization (Kanter, 1968). Porter and colleagues (1974, pp. 604) defined it as “a strong belief in and acceptance of the organization’s goals

and values, a willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership”. To sum up, organizational commitment is the extent of an individual’s commitment to an organization.

With respect to commitment, Ugboro (2003) measures it through three variables: affective, continuance and normative components. The affective component shows one’s strong desire to be identified with a particular organization and it is induced by an employee’s emotional attachment to, identification with, and involvement in an organization for its own sake, due to value congruency and a desire to see the organization succeed. The continuance component assesses one’s decision to remain in an organization because of personal investments he has made during his career at the organization. It also results from perceived difficulty in finding a comparable job elsewhere. An employee with normative commitment may feel obliged to remain in the organization despite other, and better, employment opportunities elsewhere, since the cultural value systems plays a key role in normative commitment. The finding is that downsizing increases continuance organizational commitment, but reduces affective organizational commitment, and increases job insecurity. These constructs were examined by Meyer and Allen (1991) who empirically synthesized the organizational commitment into three components: affective, continuance and normative, defining commitment as a multi-dimensional concept. The affective component refers to emotional questions and identification with the company, where the employees with strong affective commitment remain in their company because they want to. The continuance component refers to employees remaining in the organization owing to the high costs of leaving or due to a lack of opportunities in other firms. The normative component refers to feelings of obligation or internal pressures of a cultural nature. Using a meta-analysis, Meyer, Stanley, Herscovitch and Topolnysky (2002) found that there was a median correlation between the affective and the normative components, but there was a weak correlation between the affective and the continuance components, and between the normative and continuance components.

Job insecurity and its effects on organizational commitment

Despite the several studies concluding that job insecurity or lack of organizational commitment are among the negative downsizing effects on survivors, the empirical evidence is not conclusive. For instance, Hartley’s (1998) study of a large public company, with the initial aim of analyzing relationships between pro-change attitudes, organizational commitment and job insecurity after a planned organizational change, concluded that job insecurity is associated with a lower level of organizational commitment. Ashford, Lee and Bobko (1989) referred to the lack of empirical attention given to job insecurity resulting from downsizing, restructuring and mergers. Ashford and colleagues, following the study by Greenhalgh and Rosenblatt (1984), concluded that insecurity was associated with a decrease in commitment and in confidence in the organization, and also with job satisfaction. De Witte and Naswall (2003) studied whether contractual situations and job insecurity were associated with the reduction in job satisfaction and organizational commitment. They concluded that job insecurity was more closely associated with lower levels of organizational commitment and lower levels of satisfaction at work. Finally, Reisel and Banai (2002), based on the works of Greenhalgh and Rosenblatt (1984) and Ashford et al. (1989), argued that job insecurity had a negative consequence for the organization, given that it reduces commitment and confidence, inducing in workers the intention of exiting the firm.

Organizational commitment is connected to the degree to which the employees identify themselves with the goals of their organization. Hence, in companies where the goals are innovative, committed employees should devote their energy to the firm (Kanter, 1968) and make an effort to achieve the organizational goals, adopting the necessary innovative behaviors. However, in those cases where the level of organizational commitment diminishes, as in downsizing environments (Sahdev, 2003; Ugboro, 2003), may be negatively related with the innovative behaviors. Since job insecurity is associated with a lower level of organizational commitment (Hartley, 1998; Reisel & Banai, 2002), we summarize these arguments in the following hypothesis:

Hypothesis 2: The lack of organizational commitment (LC) by employees, caused by downsizing, has a negative impact with their innovative behavior (IB) and thus, mediates the impact of INS on IB.

Innovative Behavior

Innovation has become an important factor for all sorts of organizations, partly due to the technological advances and partly for the knowledge generation contribution for firms’ competitiveness. As such, an accurate study of the workers’ innovative behavior requires a focus on innovation.

Innovation is a research and exploration process that generates new products, new techniques, new organizational forms and new markets (Lundvall, 1992). Innovation may be simply defined as a process that involves the generation and implementation of ideas (Scott & Bruce, 1994). Generating and exploiting ideas implies actions directed at fostering the innovative behavior. As such, innovative individual behaviors may be defined as the individual actions directed to the generation, introduction and/or application of beneficial innovations on some level of the organization (West & Farr, 1989). In sum, innovative ability refers to the employee's ability to generate ideas and develop new or better products, services or technologies, work processes or markets (Jong, Kemp & Snel, 2001).

The ability and the behavior of workers are essential to the innovation process, owing to their motivation, capabilities and to the knowledge needed for the process. Studying innovative behavior in a work environment is a very complex task due to the difficulty in validating the criteria (Scott & Bruce, 1994). Innovative behavior acts as a key factor in incremental innovations, although its effect on radical innovations is not as clear (Jong & Kemp, 2003). The concept is based on originality at different levels: the development of new products, ideas or technologies, changes in procedures or the application of new ideas or technologies in the production process, aiming to achieve efficacy and efficiency (Kleysen & Street, 2001). In addition, the innovative behavior is a result of four interacted systems: individual, leadership, teamwork and climate to innovate (Scott & Bruce, 1994). And individual innovative behavior includes several practices (Kleysen & Street, 2001). Five constructs were identified to categorize the behavior associated with individual innovation. Out of those five, the first two are related to the initial phase of the process and the others to the implementation phase of innovations. The constructs are: opportunities exploration (identifying new opportunities), generativity (generating beneficial changes for the organizations, persons, products and/or processes), championing (socio-political behaviors involved in processes of innovation, which are essential to realizing the potential ideas, solutions and innovations), formative investigation (giving form to and fleshing out ideas, solutions and opinions and trying them out through research) and application (working at making innovations a regular part of business as usual). Other authors presented innovative behavior as a one-dimensional concept (Scott & Bruce, 1994).

A thorough literature review concerning the effect of downsizing on innovative behavior reveals a scarcity of research. Dougherty and Bowman (1995) studied the impact of downsizing on product innovation, comparing companies with high levels of downsizing to those with low levels. They concluded that downsizing damages the innovative capacity of a company, reducing the efficacy of strategies, by cutting the informal network of relations, a network that is necessary for innovation (Dougherty & Bowman, 1995). The personal networks are the way human resources acquire much of the information needed for the organization's innovations (Macdonald & Piekkari, 2005). Cooper (2005) argues that innovators create different networks to reach specific goals, in concrete, networks around ideas, information and solution gathering or just about what is happening in a specific area. These networks, essential in innovative areas, are likely to be broken following downsizing strategies.

With respect to organizational memory, it can be defined as the information stored throughout the organization's history and which can be used to make decisions (Walsh & Ungson, 1991). One of the five places where this memory can be stored is in the individual. When downsizing forces persons to leave, that organizational memory, or at least a part of it, will be taken with them (Meyer et al., 2002). Fisher and White (2000) analysed the downsizing effects on the learning capability of organizations, defined as individual processes aggregation. Individual memories are the essential pieces of the organizational memory, and when we lose a significant individual memory that was part of a collective one, it creates a fracture in the organizational and collective memory, with negative consequences. Applying this to the innovation process, downsizing can seriously damage the learning capability of organizations. Since innovation is a process that involves the generation and implementation of ideas over time, it becomes obvious that the innovation process would become penalized through the loss of organizational memory disappearing with the individuals who left. Fried et al. (2003), in a longitudinal study on workers of organizations in a downsizing process, realized that the outcome of their work tends to increase over time when there is clarity in the organization, and that this increase is greater when clarity is combined with higher job security. Analyzing "innovative behavior performance", characterized by the permanent search for and implementation of new ideas, they showed how the low motivation, morale, commitment and loyalty caused by downsizing affect this process which gives rise to new products, new techniques, new organizational forms and new markets. Furthermore, Pech (2001) argued that the workers' creative behavior is affected, and as a result so is their innovative behavior. Moreover, layoffs may be perceived by workers as a violation of the psychological contract between them and their organization, resulting in decreased trust and greater stress in the workplace (De Meuse, Bergmann, Vanderheiden & Roraff, 2004). Consequently and accordingly to the literature, layoffs are associated with increased job insecurity, decreased

commitment and productivity from survivors (Sahdev, 2003; Brockner 1992). Such negative effects may be more costly for high-involvement workplaces, as these workplaces rely expressly on employee involvement and motivation (Zatzick & Iverson, 2006). In the study of Zatzick and Iverson (2006) they find a negative relationship between high-involvement work practices and productivity in workplaces with higher layoff rates. Hence, innovative workplaces may be negatively affected by layoffs once that they need a strong involvement of workers to play efficiently the ideas role in the productivity scene to achieve the innovative behavior demanded to innovation. Once that Carbery and Garavan (2005) provided that it is mainly the managers and executioners that generally have a solid understanding about the rationale approach and possible outcome of the imminent change, workers by no understanding the rationale approach, will probably lead them to an inadequate behavior, motivated by their delicate psychological situation, with unfavorable consequences for firms that engaged the layoff practice.

When downsizing occurs, there are several effects on the surviving human resources, ranging from the economic and financial ones to the personal ones, as shown by the literature. Indeed, there are different works that have studied these last effects on different levels: motivation, stress, morale, learning, commitment, innovation and the cutting off of informal relations.

Our work consists of a pioneering analysis of the simultaneous relations between some of the effects of downsizing, such as job insecurity and commitment to innovative behavior. These effects were often used in previous studies and there are also some studies that found an association between job insecurity and lower organizational commitment. Subsequently, we elected these two specific constructs. One of the challenges organizations face nowadays is to catch the innovation train and never loose it, maintaining both their sustainability and their performance adequate to the market expectations. Innovation is unable to be realized without the innovative behaviors from workers. Even though it is a fact that innovative behavior is an extremely contemporary and in vogue theme, there are very few studies that relate the referred effects with the creative or innovative behavior and, therefore, we decided to empirically prove these possible relations.

The generation and implementation of ideas that an innovation process demands (Scott & Bruce, 1994) call for suitable innovative behavior from the employees. They need a suitable level of motivation, capability and knowledge for the innovation process to be successful and reach what is known as innovative ability (Jong et al., 2001). If the worker has generated maximum results when there is clarity and job security (Fried et al., 2003), with the appearance of job insecurity the innovative behaviors of workers from innovative organizations may be negatively related. We thus present the second hypothesis:

Hypothesis 3: *The perceived job insecurity (INS) by employees, caused by downsizing, has a negative impact with their innovative behavior (IB).*

METHOD

We analyze the relations between two effects of downsizing - perceived job insecurity and lack of commitment – and innovative behavior. The goal is to develop a model reflecting how downsizing influences simultaneously the perceived job insecurity, lack of commitment and their relation to innovative behavior of survivors.

Data and Sample

We collected data from four Portuguese companies. Surveys were randomly delivered among employees during 2005. The total and final sample contains 224 valid surveys.

The *Company A* operates in the mould industry and employs 85 workers. *Company B* produces injection machines and builds high-tech moulds for the telecommunications industry. It employs 45 workers. *Company C* is a Portuguese insurer company employing 585 workers. The Portuguese subsidiary, *company D*, has 515 workers. It was the only firm that engaged in a downsizing. *Company D* reduced its number of employees by 6% in 2004, and in the first semester of 2005 *Company D* further announced a downsizing in the media. According to the firm, the downsizing effect was not as strongly felt in Portugal as it was in some other countries. The three remaining companies were not involved in any kind of downsizing strategies in the years analyzed. Maertz et al. (2010) also compared an American sample of survivors of layoffs (offshoring and outsourcing) and their combinations to a group who experienced no downsizing.

Once the literature had taken account of the downsizing in terms of layoff announcements (De Meuse et al., 2004), the company D announcement became a critical factor in the realization of our study in this company.

The survey instrument

According to the reviewed literature, described above, as well as to a few in depth interviews with academic and professional specialists, and also taking some pre-test questionnaires into account, we elaborated a final questionnaire that adapts items used in studies from Ugboro (2003), Reisel and Banai (2002), Kleysen and Street (2001) and Jong and Kemp (2003). We applied a 5 points Likert-type scales (varying from “Very unlikely – Very likely”, “Strongly agree – Strongly disagree” or “Unusual – Very Frequent”).

The questionnaire had four parts. The first part referred to job insecurity, the second to commitment and the third part focused on innovative behavior. The fourth part comprised several items pertaining to demographic data. (items are reproduced in appendix)

Job insecurity was measured with items v1.1 to v1.10 in its three components: perceived job feature (PJF: v.1.1 to v1.3), perceived threat to one’s total job (PTTJ: v1.4 to v1.8) and perception of powerlessness (PP: v1.9 and v1.10). The commitment construct was measured with the items coded v2.1 to v2.10, where the three components of commitment (affective: “AC”, continuance: “CC” and normative: “NC”) were measured by the items v2.1-v2.4, v2.5-v2.7 and v2.8-v2.10, respectively. The innovative behaviors were measured with items v3.1 to v3.13 (see Appendix A - List of variables).

Measures

The most suitable methodology for analyzing simultaneous relations is a structural equation modeling. First, using SPSS, we carried out an exploratory and confirmatory factor analysis, to assess how the variables were grouped. We eliminated the variables least adjusted to our theoretical model. We further verified the reliability of the constructs with the Cronbach’s Alpha (Cronbach, 1951; Hair, Anderson, Tatham & Black, 1999). The magnitude and significance of the simultaneous regression coefficients were estimated with LISREL software.

EXPLORATORY AND CONFIRMATORY FACTOR ANALYSIS

After the factor analysis and depuration according to the correlation matrix analysis, to the factor scores and Cronbach’s Alpha values (Cronbach, 1951), the variables V3.7, V3.13, V3.3, V2.7, V2.5 and V.2.6 had smaller scores than 0.5, and were not considered (Bagozzi & Yi, 1988). Moreover due to crossed saturations in distinct factors simultaneously.

[Insert Table 1 about here]

For all the factors, the Cronbach’s Alpha value is greater than 0.6 (minimum value of 0.651 for PP construct), showing that the analysis is adequate. After the initial confirmatory analysis, we proceed to some corrections. The v2.4 was removed because it is related to two factors at the same time, the v2.5 was eliminated because it has no significantly strong relation with any factor, the v2.6, v2.7, v3.7, v3.13 were also eliminated due to their low factor scores and the v3.3 was removed since it relates to two factors at same time.

The elimination of the v2.5, v2.6 and v2.7 could be related to the multidimensional nature of the CC (continuance component). According to De Frutos, Ruiz and San Martín, (1998) the division of the continuance component into two dimensions (“high cost of leaving the organization” and “perceived alternatives of employment”) is recommended. With these corrections we reached the values mentioned in the table above, thus showing good results for the factors created, in order to the one-dimensionality and reliability issues.

[Insert Table 2 about here]

In table 2 we may observe the global confirmatory factor analysis and the several depurations with respective re-specifications. We may suggest a causal model so as to prove the theoretical model presented.

After the several confirmatory analyses, RMSEA value reached 0.062, CFI=0.924 and NFI=0.849. Hence, we may conclude that our model has an acceptable fit.

[Insert Table 3 about here]

In table 3 we present the reliability analysis, verifying the scale reliability. Cronbach’s alphas are always and for all the constructs higher than 0.6 (minimum $\alpha = 0.651$ for PP) and the extracted variance is higher than (or equal to) 0.5 (only one construct does not reach the 0.5, but it gets very close to that value: 0.43 for INS, second level), as recommended by Hair et al. (1999). All the cases reach values around 0.7 for composed reliability (the constructs’ composed reliability in mean terms is of 0.71), except for PP construct (however, it

assumes a very approximated value: 0.66). In our case, all the dimensions reached higher values than 0.7 (minimum $\rho = 0.76$ for PJF), except for the case of PP, which got a very close value ($\rho = 0.66$).

Concerning convergent validity, we may conclude that the distinct items used to measure the same construct are significant and strongly correlated with it. Observing the t values and the standardized coefficients of the first level analysis, we can conclude that all t values are higher than 2 and that standardized coefficients are greater than 0.6 (overall mean=0.67).

[Insert Table 4 about here]

At the second level analysis, only 2 parameters are lower than 0.6 (table 4) and all the average extracted variance values are higher than the correspondent quadratic correlation, ensuring a discriminant validity.

[INSERT TABLE 5 ABOUT HERE]

Once that the whole average extracted variance values are respecting the recommended by Fornell and Larcker, (1981), these results indicate that our measures are measuring one only concept. However, the pair INS – LC has an average extracted variance (0.43) equal to the correspondent quadratic correlation (0.43), indicating that each measure may be not measuring a single concept and that they have a certain proximity. However, with a new factorial analysis with these constructs together, no differences were found compared with the previously stated.

Structural model

The fit of our first model, “Causal 1”, was already acceptable, according to CFI (0,924), NFI (0,849) and RMSEA (0,062) values. With the re-specification done (correlation of e17 and e21), the model fits in a better way to the data matrix (CFI 0,926, NFI 0,852 and RMSEA 0,061). The “Causal 2” model is strongly adapted to the data matrix. It is acceptable with respect to all the fit indexes.

[Insert Figure 1 about here]

Our model shows that job insecurity is manifested essentially by PPP (0,72) and the lack of commitment essentially by its affective component (0,94).

[Insert Table 6 about here]

As expected, the impact between job insecurity and lack of commitment is positive (0.67), corroborating our hypothesis 1. This means that when employees feel job insecurity, there is a lower lever of organizational commitment.

As to hypothesis 2, the lack of organizational commitment shows a significant negative impact with the innovative behavior of workers (-0.240), although it is not significant, not corroborating the hypothesis 2. Thus, the lack of commitment is not a mediating construct between job insecurity and innovative behavior. The innovative behavior is determined, primarily, by job insecurity.

At the same time, the impact between job insecurity and innovative behavior of workers is significantly negative (-0.297). The hypothesis 3 is corroborated. Results indicate that when workers perceive job insecurity, their innovative behavior becomes negatively affected.

DISCUSSION AND CONCLUDING REMARKS

This study corroborates hypothesis 1 and hypothesis 3. As expected, insecurity and lack of commitment are positively related, corroborating our hypothesis 1. This result shows that when workers feel job insecurity, there is a lower lever of organizational commitment. At the same time, the impact between job insecurity and innovative behavior of workers is significantly negative (-0.297). Hypothesis 3 is corroborated, and the results indicate that when workers perceive job insecurity, their innovative behavior is negatively affected.

The lack of organizational commitment is indicative of a negative impact on workers' innovative behaviors, albeit it is not significant. Hence, we may not conclude of a mediating effect of the lack of commitment on the relationship between job insecurity and innovative behavior. The innovative behavior is determined, primarily, by job insecurity. We cannot confirm hypothesis 2

In conclusion, job insecurity caused by downsizing leads to a lack of organizational commitment, owing to the loss of workers who integrated the work teams and, as a consequence, the informal network relations disappears. Since the innovation process implies an active attitude from the workers so as to drive their abilities and knowledge to the exploration and implementation of ideas, the job insecurity perceived by workers can affect the worker's innovative behavior. Results indicate that the innovative behavior is not mediated by the lack of organizational commitment felt by workers; hence, it is totally determined, by job insecurity.

This study has acknowledged limitations that may drive future research. It is evident that we include a single case of an enterprise affected by downsizing, and an additional three cases that did not proceed with

downsizing strategies. Richer insights may emerge by taking into account additional downsizing occurrences. This study is past related, which provided a retrospective view of the changes felt by workers. In this sense, the findings are not generalizable across countries or industries, albeit some inferences may be made. Nonetheless, a longitudinal study would be a better vehicle to set comparisons within the same company but in different time frames and moments, especially with respect to the effects studied. We may further suggest a multi-group procedure, by company type, that implemented a downsizing and that did not, would allow analyzing the moderating effects of firm's characteristics on survivors.

For theory and practice there are obvious contributions amidst the need to better understand the true impact of downsizing strategies. While firms are increasingly deploying downsizing and other restructuring solutions to solve short term problems, it is important to understand the internal dynamics that underlie. Is particular in what concerns survivors – those employee that are not fired or laid-off. Managers need to understand how downsizing impacts motivation, commitment and innovative behaviors. It seems reasonable to suggest that downsizing destroys the social fabric that ties and binds co-workers. This is the fabric that is called upon to entail R&D efforts and to come up with novel products and processes. For theory we call the need to better understand those same internal processes after a downsizing.

Downsizing is a short terms solution to arguably proceed with a turnaround. The long term consequences need to be carefully considered to prevent greater hazards and the definite loss of competitive capacity and capabilities.

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Table 1: One-dimensional and reliability analyses in an exploratory and confirmatory factor analysis (by construct)

Construct	Variables	Factor analysis	Confirmatory analysis (partial)	α
PJF (perceived job feature)	v.1.1	1 factor	Degrees of freedom = 0	.696
	v.1.2	65.5% of the variance explained		
	v.1.3	Factor scores >.816		
PTTJ (perceived threat to one's total job)	v.1.4	1 factor 58% of the variance explained Factor scores >.651	$\chi^2 = 41.5 (5)$ p =.000 CFI=.910 RMSEA=.181	.807
	v.1.5			
	v.1.6			
	v.1.7			
	v.1.8			
PP (perception of powerlessness)	v.1.9	1 factor	Degrees of freedom = -1	.651
	v.1.10	74.2% of the variance explained		
		Factor scores >.861		
AC (affective commitment)	v.2.1	1 factor	$\chi^2 = 0.246 (5)$ p =.884 CFI=1 RMSEA=.000	.842
	v.2.2	68.9% of the variance explained		
	v.2.3	Factor scores >.731		
	v.2.4			
NC (normative commitment)	v.2.8	1 factor	Degrees of freedom = 0	.784
	v.2.9	69.9% of the variance explained		
	v.2.10	Factor scores >.817		
	v.3.1	1 factor 59.2% of the variance explained Factor scores >.676		
	v.3.2			
v.3.4				
v.3.5				
IB (innovative behavior)	v.3.6	$\chi^2 = 168.2 (35)$ p =.000 CFI=.902 RMSEA=.131	.92	
	v.3.8			
	v.3.9			
	v.3.10			
	v.3.11			
	v.3.12			

Total: 65.3% of total variance explained

Table 2: Global confirmatory factor analysis

MODELS	χ^2 (p)	Degrees of freedom	CFI	RMSE A	NFI	Re-specifications
Confirmatory1	680.26 (0.000)	316	0.875	0.072	0.791	v.1.3 removed by small SMCvalue; z4 fixed in 0.05;
Confirmatory 2	646.9 (0.000)	292	0.876	0.074	0.796	V1.8 removed by small SMC value;
Confirmatory 3	582.6 (0.000)	268	0.886	0.073	0.810	V3.5 y v3.8 removed by crossed saturations;
Confirmatory 4	425.01 (0.000)	223	0.914	0.064	0.836	V1.7 removed by small SMC value;
Confirmatory 5	373 (0.000)	202	0.924	0.062	0.849	-----

TABLE 3: RELIABILITY ANALYSIS (FIRST LEVEL)

Dimensions	Variables	Standardized coefficients	t	α	pve(n)	ρ
PJF (perceived job feature)	v.1.1	.684	*	.748	.61	.76
	v.1.2	.879	6.726			
	v.1.4	.804	*			
PTTJ (perceived threat to one's total job)	v.1.5	.763	10.98	.830	.63	.84
	v.1.6	.811	11.38			
	v.1.9	.631	*			
PP (perception of powerlessness)	v.1.10	.767	5.73	.651	.5	.66
	v.2.1	.620	*			
	v.2.2	.803	9.32			
AC (affective commitment)	v.2.3	.848	9.62	.842	.59	.85
	v.2.4	.790	9.23			
	v.2.8	.674	*			
NC (normative commitment)	v.2.9	.853	8.51	.784	.55	.79
	v.2.10	.692	8.46			
	v.3.1	.600	9.39			
IB (innovative behavior)	v.3.2	.695	11.24	.906	.55	.91
	v.3.4	.627	9.88			
	v.3.6	.813	*			
	v.3.9	.822	14.05			
	v.3.10	.735	12.08			
	v.3.11	.733	12.04			
	v.3.12	.849	14.70			

Legend: α = Cronbach's alpha, pve(n)= extracted variance, ρ = composed reliability, *= fixed parameters in 1.

Table 4: Reliability analysis (second level)

Second level constructs	First level constructs	Standardized coefficients	t	pve(n)	ρ
INSECURITY	PTTJ	0.54	---	0.43	0.69
	PJF	0.69	4.336		
	PP	0.72	4.279		

LACK OF COMMITMENT	AC	0.94	---		
	NC	0.32	3.635	0.5	0.62

TABLE 5: DISCRIMINANT VALIDITY OF THE CONSTRUCTS

Correlations	<i>r</i>	ρ_{ve1}	ρ_{ve2}	r^2
INSEC – LC	0.66	0.43	0.5	0.43
INSEC-IB	-0.454	0.43	0.55	0.20
IB- LC	-0.442	0.55	0.5	0.19

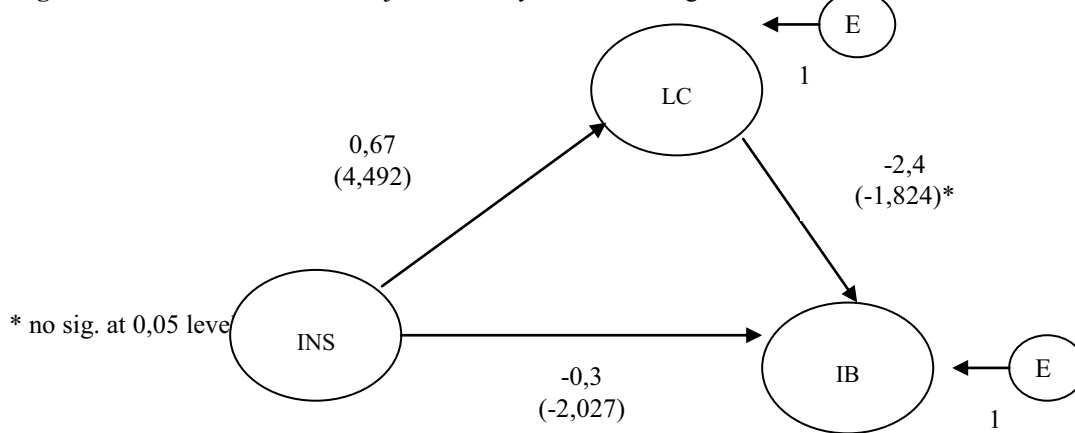
Legend: ρ_{ve_i} = extracted variance for construct *i*; σ = standard deviation; r^2 = quadratic correlation; *r* = correlation coefficient

Table 6: Standardized effects matrix: direct, indirect and total effects

Effect of/in	INSEC			LC		
	Direct	Indirect	Total	Direct	Indirect	Total
LC	0.67	---	0.66	---	---	---
IB	-0.297	-0.162*	-0.459	-0.240*	---	-0.240*

* no sig.

Figure 1: Final model - Perceived job insecurity and lack of organizational commitment to innovative behaviors



* no sig. at 0,05 level

Appendix: List of variables

- v1.1 Do you have the possibility of moving ahead in your organization and remaining in your organization?**
- v1.2 Is it difficult to keep your current pay or to attain pay increases?
- v1.3 Do you have current freedom to schedule your own work in a manner you see fit?
- v1.4 Do you believe you can lose your job and be moved to a lower level within the organization?
- v1.5 Do you think your future in this organization is uncertain?
- v1.6 Do you believe you can lose your job and be fired?
- v1.7 Do you think it is probable that you will remain in your organization 3 months from now?
- v1.8 Will you lose your job by being pressured to accept an early retirement?
- v1.9 Do you have enough power in this organization to control events that affect your job?
- v1.10 In this organization, can you prevent negative things from affecting your work situation?
- V2.1 Would you be very happy to spend the rest of your career with this organization?
- V2.2 Do you really feel as if this organization's problems are yours?

- V2.3 Do you feel a sense of belonging to this organization?
- V2.4 Do you feel emotionally attached to this organization?
- V2.5 Right now, is staying in this organization a matter of necessity?
- V2.6 Would too much of your life be disrupted if you decided that you wanted to leave your organization at this time?
- V2.7 Do you feel that you have too few options to consider leaving your organization?
- V2.8 Do you feel an obligation to remain with your current employer?
- V2.9 Even if it were to your advantage, do you feel it would not be right to leave your organization now?
- V2.10 Would you not leave your organization right now because you have a sense of obligation to the people in it?
- v3.1 Do you search out new technologies, processes, techniques and/or product ideas?
- v3.2 Do you generate creative ideas?
- v3.3 Do you read magazines, journals, attend courses or conferences to learn of new ideas or solutions?
- v3.4 Do you generate ideas or solutions to solve problems or difficult situations?
- v3.5 Do you present new ideas and solutions?
- v3.6 Do you present improvement initiatives?
- v3.7 Do you try to persuade the others of the importance of a new idea or solution?
- v3.8 Do you promote the ideas and solutions so they have a greater possibility of being implemented?
- v3.9 Do you experiment with the new ideas or solutions?
- v3.10 Are you aware of the bugs of new solutions before they are applied to new products, processes, technologies or markets?
- v3.11 Do you help your colleagues in their new ideas and solutions?
- v3.12 Do you like to do things in a new way?
- v3.13 Do you test the new ideas or solutions?
- v4 Sex
- v5 Age
- v6 Educational Level
- v7 Marital Status

INFORMATION TECHNOLOGY APPROACH TO THE MANAGEMENT CONTROL AND OPTIMIZATION OF SERVICE SYSTEMS WITH WAITING LINES

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ABSTRACT

Stochastic customers' requests and service systems responses make waiting lines a way of matching opposite needs from and capabilities of the system. Managers solve the conflict between the interest of clients, wanting to be served as soon as possible, and business imperative that operators are employed as completely as possible. In order to help them control and optimize service systems with waiting lines in real time, software application QueCAD, using CAD approach, has been realized. It has three input parameters (the intensity of clients' demand, capacity units and service time) that can be easily entered and varied. Numerical and graphical output indicators should help managers quantify sufficient capacity units, while preserving the service quality.

INTRODUCTION

Stochastic clients' demands and service processes make waiting lines one of the oldest ways to match confronted customers needs and capabilities of (all generations of) service systems. They have to adapt inevitable oscillations of customers' requests and service system responses. Managers' task is to solve the conflict between the interest of clients, wanting to be served as soon as possible, and the business imperative that serving workers are employed as completely as possible. They used to do it based on common sense, accumulated experience and ability of prompt interactive reacting. Recent, rather late application of scientific explanation, quantification and modeling of waiting and serving processes in business practice was not easy at all without the use of information technologies, as determined laws and basic principles cannot be significantly simplified nor selectively applied.

Ever increasing competition among service systems, which are present in more than a half of today's global, world economy (in terms of both turnover value and human participation), as well as demands of TQM, impose the engagement of the management in projecting and (current changes within) further development of these systems. Multidimensional, non-stationary and stochastic character of their parameters makes them difficult to estimate even in the designing phase, with relatively enough time available, while managing service systems with waiting lines alive is certainly additionally demanding and requires a sophisticated technological support.

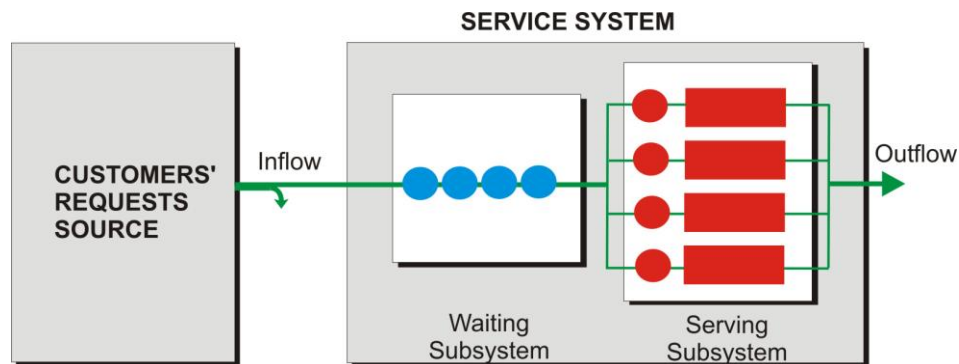
There are operations managers in large systems specialized for managing service systems with waiting lines. However, in medium and small service firms, often run by service specialists or entrepreneurs themselves, there is a need for an easy-to-use application that would help these managers run service systems effectively.

Objective evaluation of service quality, needing quantification of demand and necessary capacity, is not a simple process, either in the designing phase or in later, real-time system management. Expert judgment and system control are easier if managers can view and change at once all input parameters and output indicators. In order to help them control and optimize service systems with waiting lines in real time, the software application QueCAD, using CAD approach, has been realized. It has three input parameters (the intensity of clients' demand, capacity units and service time) that can be easily changed and varied. Numerical and graphical presentation of output indicators should help them quantify necessary capacity units while preserving the quality of servicing.

SERVICE MANAGEMENT – DIMENSIONS AND PROBLEMS

Managing service systems with waiting lines, managers deal with customers population requests (as well as their behavior) being processed in the service system containing the waiting subsystem. Basic elements necessary for calls tracking, analysis, control, and feedback reaction in such a system are presented in Figure 1.

Figure 1: Basic elements of the service system with waiting lines



The object of the management observation, dimensioning during the designing phase, tracking, analysis, estimation, control and optimization during the system operation are the following service systems components:

- group of customers with predetermined characteristics, dimensions, needs, behavior, and orientation;
- the intensity of their requests for certain services: average values, time variation, and distribution type;
- the dimensions and factors with an impact on giving up waiting for the services to be performed;
- the waiting subsystem with defined or unlimited dimensions, various conditions and benefits offered to clients, specific informing organization solution, behavior rules, and events estimation possibilities;
- the serving subsystem with defined capacity, operation technology, time frames of service performing, determined or randomly chosen statistical profile, the elasticity of its capacities adaptation, etc.

Key factors influencing the situation with the waiting subsystem i.e. whether serving capacities are (and to what degree) well dimensioned in accordance with clients demand are: 1) the intensity of customers' requests, and 2) serving capacities (in terms of number of working posts and their serving norms). If the service system is over-dimensioned, it will be less efficiently utilized, while customers will have to wait a shorter time-period, and vice versa - if it is under-dimensioned, the capacities will be better used up, but clients will be exposed to longer waiting. When optimizing the service system, managers should take into consideration both the efficiency of its operation and the customers' satisfaction, especially in respect to waiting and service times, being the factors of the major importance for a satisfactory level of total service quality. Its other determinants (like the quality of the service itself, lower price or higher comfort in view of serving equipment and environment) are also significant, but the same amount of investments in their amelioration most frequently do not contribute to the augmentation of total service quality in the same proportion as the investments in spent (waiting and service) time shortening.

Beside waiting time, that may not be so quickly estimated by a customer, his satisfaction regarding the waiting subsystem is also determined by two other factors, which he can subjectively estimate: quite easy – like the length of a waiting line, or (after repeated access to the service system) not too difficult – like the distribution type of the queue length. Therefore it is essential to dimension the service system so as to optimize the capacities occupation level and to achieve such level on which the operators are engaged as completely as possible, having the fewest possible pauses in work (while waiting for the customers). More focused attention to these factors in the practice, changing their values in a model or in reality in order to estimate the consequential trends, and clear understanding of their importance and impact on output parameters of the system should provide more effective measures for the secondary actions (like changing service conditions, organization, technology or prices, etc.).

ANALYTICAL BASIS FOR MANAGING WAITING LINES

Starting point is the second (classical) Erlang C formula [1], explaining exponential Poisson distribution of customers' requests and service time dimensions, and showing all probabilities in the waiting subsystem – of forming waiting lines and of the service system being only partially or fully occupied. Basic input parameters are:

- λ – the frequency of clients' arrivals or the number of customers per hour;
- τ_λ – the average time between two arrivals, as the reciprocal value of the frequency of clients' arrivals;
- N – the number of serving posts or positions (operators, channels, places or devices);
- τ_μ – the average service time (e.g. in minutes); and
- μ – the intensity of releasing a serving post, as the reciprocal value of the average service time.

There are a few characteristic dimensions and moments of the service process:

- the average service time per customer

$$(1) \quad \tau_\mu = 1/\mu$$

- the average number of customers waiting in the queue before being served

$$(2) \quad L_q = \frac{\left(\frac{\lambda}{\mu}\right)^N \cdot \left(\frac{\lambda}{N\mu}\right)}{N! \left(1 - \frac{\lambda}{N\mu}\right)^2} P_0$$

where P_0 is the probability (in %) that there are no customers in the system, which is estimated as

$$(3) \quad P_0 = \left[1 + \frac{\frac{\lambda}{\mu}}{1!} + \frac{\left(\frac{\lambda}{\mu}\right)^2}{2!} + \dots + \frac{\left(\frac{\lambda}{\mu}\right)^{N-1}}{(N-1)!} + \frac{\left(\frac{\lambda}{\mu}\right)^N}{N! \left(1 - \frac{\lambda}{N\mu}\right)} \right]^{-1}$$

- the average number of customers being served, or demanded service traffic

$$(4) \quad A = \lambda/\mu$$

which indicates how many customers on average have had to be served at the same time

- the average waiting time or the average time a customer has had to wait in the queue

$$(5) \quad W_q = L_q/\lambda$$

- the average total time spent by customer, as the sum of average waiting time and average service time

$$(6) \quad W = W_q + \tau_\mu$$

- the probability that there are 'x' customers in the system

$$(7) \quad P_x = \frac{\left(\frac{\lambda}{\mu}\right)^x}{x!} \cdot P_0 \quad \text{for } x = 1, 2, 3, \dots, N \quad \text{and}$$

$$(8) \quad P_x = \frac{\left(\frac{\lambda}{\mu}\right)^x}{N! \cdot N^{x-N}} \cdot P_0 \quad \text{for } x = N+1, N+2, \dots \text{ etc.}$$

SOFTWARE TOOLS FOR MANAGING WAITING LINES

A more complex approach to this model may bring us to various dimensions of the service system in the function of variable input parameters. In pre-computers era, the solutions were sought in multidimensional tables or in less precise but more illustrative presentation of interdependences via different graphs usually given in the form of three-parametric families of characteristics. Nowadays, there are some easy-to-use on-line calculators, like the one developed by Westbay Engineers Ltd, based on the described model, and shown in Figure 2 [2].

Figure 2: Simple Erlang C calculator for telephone traffic estimation (Source: www.erlang.com/traffic.html)

There is also another, more complex software application based on Erlang C model [3], requiring input of more real data and enabling the optimization of capacities through dynamic dimensioning of working shifts. Some other (less precise) solutions are not based on exponential, but some other input parameters distributions. Nevertheless, all these solutions seem to be intended only for narrow-profile specialized experts and they do not support simulation analysis, which could cover most of real situations that can be met in global business practice.

CONCEPT OF A NEW TOOL AND ESTIMATIONS CRITERIA

Bearing in mind the profile and needs of the managers who could use it, the concept of a new software application for the management control and optimization of systems with waiting lines should definitely include:

- clear explanation of the application purpose, with the Help Function support of a high quality level;
- simple defining (with fewer options) and easier, non-numerical entering of input parameters and their variations (by means of dynamical changes, through increasing or decreasing their existing values);
- complete numerical (for the sake of preciseness) results reporting and graphical presentation of key analysis results in relative percentage scale (in order to observe interrelations more successfully);
- dynamical observation of the direction and rate of results variations when changing input parameters;
- establishing more complex criteria to estimate the effectiveness of possible calculation solutions; and
- finding the relation that will take into account both customers' needs and service system capabilities.

Continual showing of the analysis results according to input parameters changes demands a specific criterion, effectively leading towards an optimal solution choice. Two opposite factors have to be considered: customers' satisfaction and effectiveness of capacities employment. A customer's satisfaction is generally highly correlated with the structure of total time he spends, so that an appropriate criterion could be the relation between service time (that he spends on the service itself) and total time he spends (which includes waiting time, as well):

$$(9) \quad Z_K = \tau_\mu / W \quad \text{which is in the range from zero to one.}$$

The criterion for the effectiveness of capacities employment could be the percentage of time in which the operators work, as the relation between the demanded service traffic and the number of serving positions:

$$(10) \quad E_R = A / N$$

which is in the range from 0 to 1, too. The situation in which demanded service traffic would be higher than the number of serving posts, meaning constant extending of waiting lines, must not be allowed in practice.

A synthetic criterion showing the effectiveness of adapting the Capacities to the Demand would be:

$$(11) \quad CD_{eff} = Z_K \cdot E_R$$

which, after replacing (9) and (10) in (11), becomes more closely related to initial input parameters:

$$(12) \quad CD_{eff} = \frac{\tau_\mu}{W} * \frac{A}{N} = \frac{\lambda}{W \cdot N \cdot \mu^2}.$$

Showing the degree of harmonization of both interests, this criterion is also in the range from 0–1, and the optimization solution varies between the worst and the best (for the maximum value being 1), which is hardly possible, as it would mean that customers do not have to wait at all, while operators are completely employed.

PRESENTATION OF SOFTWARE SOLUTION QueCAD

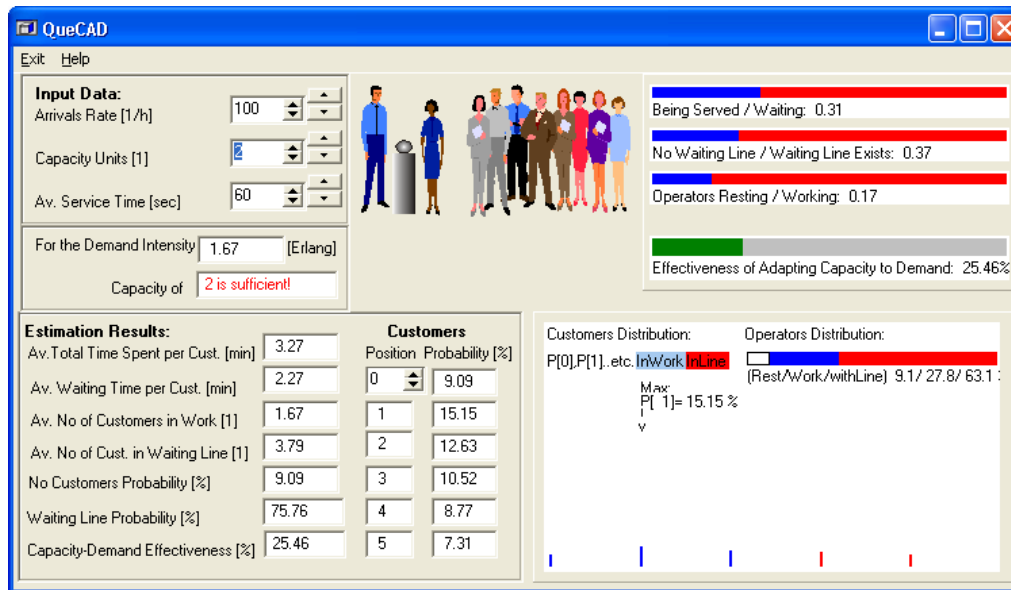
Initial concept with dynamic approach, numerical and graphical presentation of simulation results, and emphasizing more informative criteria for the estimation of the system optimization solution effectiveness has lead to the creation of specific CAD (Computer Aided Design) profile of new software application, dealing with queues and therefore named QueCAD [4]. Appearance (upon activating the application) of its opening window (showing the beginning status and containing all key functions of the service process analysis, entering input data and conditional limitations, numerical and graphical presentation of estimation results) is illustrated in Figure 3.

In the upper left corner there is a field for entering or changing input parameters, with units or decades incrementing or decrementing numerical values. On the customers side a clear dimensioning of their requests intensity is possible in the form of the arrivals rate per hour. The service system has been described by working posts number and average service performance time, possibly given as a norm. In the field below, the manager can follow the degree of approaching demand to present capabilities by means of synthetic indicator of demanded service traffic, based on given requests intensity and expected service time. In the case of exceeding the system capabilities, he is alarmed about incorrect given parameters by (red colored) sufficient capacities at that moment.

In the lower left corner, there is the estimation results field, with most important numerical indicators, quantified or expressed in time units or in probability distribution percentages. On the right side of the window, horizontal blue/red 100 % stacked bar charts show: waiting-time share, probability of getting into the queue, and the level of working force employment. The equation (12) defines and green/grey stacked bar chart illustrates the synthetic criterion of the effectiveness rate of adapting the service system capacities to the customers' demand.

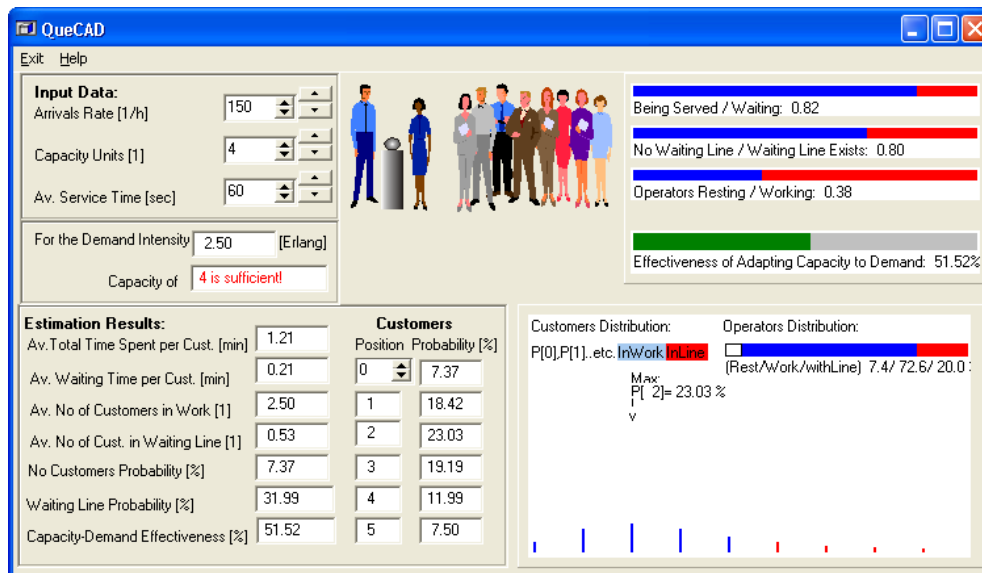
The customers' status probability distribution (in CAD approach being not of the primary importance, but still significant in the final phase of choosing a solution) is in the field in the lower right corner, in the two-dimensional form and two colors – blue for being served, and red for waiting status. Additional horizontal 100 % stacked bar chart, with minimal but necessary numerical information, shows capacities employment distribution.

Figure 3: Opening basic window of QueCAD (CAD version of Erlang C calculator) with initial data status



An increase in customers' requests for 50 %, while keeping the same time service norm, will demand doubling capacities. Figure 4 clearly illustrates finding new optimal solution for thus changed input parameters.

Figure 4: Finding optimal solution using QueCAD for 50 % higher demand than in the previous example



PRACTICAL APPLICATION OF SOFTWARE QueCAD

Beside an elimination of waiting, increase of services share in the economy [5] and more expensive (and extensive) human work in servicing give new dimension to the service speed, being important for service quality. Optimization of service processes is complicated [6] because it is based on elements that are not determined, as customers' arrivals, the contents of their requests and variability of service time and contents. Watching, design,

adjustments, control, and optimization of this process can be done based on the experience (without sufficient information), simulation (with parametric analyses, appropriate for more complex real processes) or analytical approach (as QueCAD does, with exponential distribution of service time and intervals between customers' calls, requests or arrivals). Optimization of service systems capacities means dimensioning them large enough to avoid long waiting lines and so that the operators are as much employed as possible, thus avoiding long breaks. Both the relation of service and total time a customer spends, and of effective and total working time of an operator are in the range from zero to one. Situation is better if they are (when multiplied) higher, near one, showing less waiting for customers and more work for operators. Maximum indicates efficient selection of two factors in equilibrium.

Example # 1: If the bank with four active windows has 35 customers per hour and the average service time is 3 minutes, then both the dimension of the service required by the customers and the average number of customers served is 1.75; the average time of serving one customer is 3.16 minutes; the average time a client spends waiting in the line is 0.16 minutes; the average number of customers in the line is 0.09; and probability that certain number of customers are in the system (expressed in %) is presented with the following probability distribution. Since the probability P_1 is highest, it is most probable that there is only one client being served.

P_0	P_1	P_2	P_3	P_4
17.04	29.82	26.09	15.22	6.66

Example # 2: If we change the speed of the service from the previous example by 10 %, with the average service time of 3.3 minutes, the average waiting time will be 0.25 minutes, with 0.14 customers in the line, and:

P_0	P_1	P_2	P_3	P_4
14.14	27.23	26.21	16.82	8.09

Faster service, lasting 2.7 minutes, will cause an average waiting time of 0.10 minutes and 0.06 clients in the line:

P_0	P_1	P_2	P_3	P_4
20.45	32.21	25.37	13.32	5.24

One may conclude that with slower service, it is less probable that operators rest and longer waiting lines are more probable. With faster service, operators have more time to rest and the waiting lines are shorter.

Example # 3: We can compare situations with only one shop in the neighborhood (with four salesmen and 900 customers coming daily within 10 hours working time, what makes the average service time 2 minutes) and two shops (with two salesmen and 450 customers daily in each, and the same service time). The results are:

	Average Number of Customers in the Waiting Line	Average Waiting Time	P_0	P_1	P_2	P_3	P_4	P_5	P_6
One Shop	1.53	1.02	3.77	11.32	16.98	16.98	12.74	9.55	7.16
Two Shops	1.93	2.57	14.29	21.43	16.07	12.05	9.04	6.78	5.09

With the same customers' needs and the same total number of salesmen in the shops, in the case of one shop, there will be slightly less customers in the waiting line, the waiting time will be 60 % shorter, and salesmen will be more efficiently employed – with three times less time without working. It is also characteristic that in both options, most probable situations are that there are 2–3 or just one customer in the shop at the time, what is practically corresponding to the number of salesmen in the shop(s). In the case of one shop, longer waiting lines are more probable, but with shorter average waiting time. In the case of two shops, the total number of customers waiting (in both of them, i.e. in both waiting lines) is greater, and each of them is waiting longer on average.

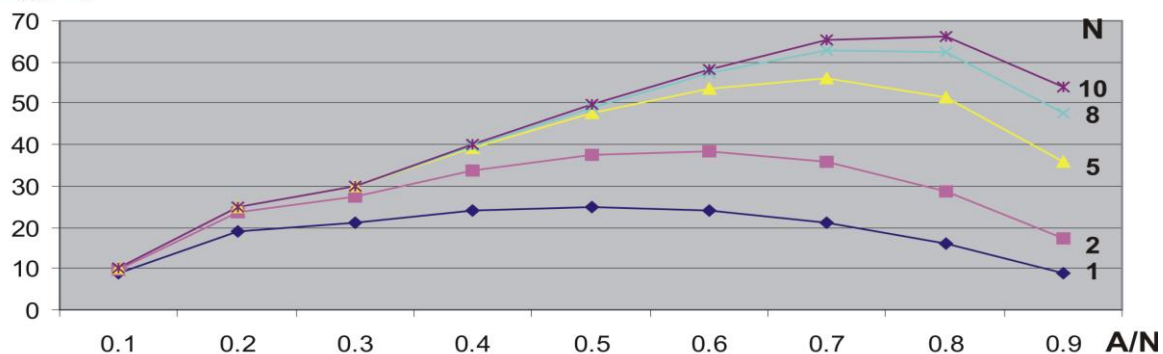
CONCLUSION

Since crucial basic dimensions and derived indicators can be simultaneously presented and dynamically modified in real time the new software solution provided expected CAD approach and the form that could fulfill the needs of less specialized managers, which was the main goal of the application. It proved that CAD approach

is possible in modeling service systems with waiting lines. Relatively small number of input and output data and simplicity of numerical functions, graphical results presentation and the solution itself are significant for efficient designing and identifying critical moments for the situation judgment: customers waiting and effective capacities employment. The Help Function with algorithms and examples will make the use of the application even easier.

Introduced criterion for measuring the effectiveness of dimensioning the system, trying to reconcile the opposite interests of customers and the system, is especially interesting and informative. Analysis of numerical values and the family of lines representing this criterion CD_{eff} (the effectiveness of adapting the capacities to the demand) as the function of A/N (12) for different numbers of service channels shows its specific characteristics. The diagram in figure 5 documents higher effectiveness of larger systems (with more service channels), what is understandable, because such systems have equalized occupation level, fewer variations in customer number and lower possibility of forming long waiting lines. While CD_{eff} for the system with one service channel is just 25 %, it grows rapidly to 65 % for the system with ten service channels. Symmetric form of the curve in the area of its maximum is even more interesting, because it shows that having found the maximum of effectiveness function, changing capacity would equally reflect either on customers or on the system, of course in the opposite direction.

Figure 5: Various levels of the effectiveness of adapting the system capacities to the demand by QueCAD
 $CD_{eff}[\%]$



Practical experience in applying QueCAD has resulted in ideas for its further improvements through: different algorithms for other customers' requests or service processes; including the snap-shooting sub-function and modeling real-world data in entering input parameters; or introducing the acquisition function for watching real systems, that would enable some sort of current verification of designed and dimensioned service systems.

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ACCUMULATION OF TECHNOLOGICAL CAPABILITY AND THE PERFORMANCE IMPROVEMENT: EVIDENCES FROM MULTIPLE CASE STUDY OF SMALL AND MEDIUM SIZE METALWORKING FIRMS IN RIO DE JANEIRO, BRAZIL

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ABSTRACT

Although there has been a profusion of studies on latecomer firms capability made, there is still a scarcity of analyzes on the impacts of firms capabilities on the improvement of their competitive performance. This paper focuses on the implications of technological capability accumulation for the improvement of selection internal performance indicators at the level of firms in metalworking industry. Drawing on a multiple and long term design case study, this study examines this relationship in small and medium size metalworking firms Rio de Janeiro, Brazil. The empirical evidences shows firms that accumulate higher levels achieved better performance improvement over time. Therefore this paper suggests actions for managers and government policy for the development of technology in Brazilian metalworking industry.

INTRODUCTION

Over the past organizations have been studied in order to examine the implications of a Company's capabilities for perfecting its technical-economic performance is reflected in classic studies which have mainly been published since the 1960. Based on these studies, in the late seventies a pioneer group of researchers joined forces to look into the development of innovative technological capabilities in companies from emerging economies. Despite this, there is a gap in long terms analyzes and latecomer countries environment.

HOLLANDER (1965) studied the Du Pont in U.S.A. and one of the results of this study was the importance of exploring changes in the company's industrial organization as form to understand the differences of improvements of operational indicators between plants. DAHLMAN and FONSECA (1978) had developed a study in the Steel Plants of Minas Gerais (Usiminas), from the period of 1956 to 1976, that it evidenced an impressive expansion of the nominal capacity (superior the 200%) configuring a reaction to the financial crisis of the Company and the delay of investments in the same one. In these, in meanwhile, the variation of the productivity was slow and negative, associate to the little intensity of the internal efforts to the companies (FIGUEIREDO, 2003).

KATZ et al.(1978), for its time, studying a Company manufacturer of rayon in Argentina found average indices of improvement of the performance (productivity of the work) associates to the lack of continuity of the internal efforts to the Company (for example, in the improvement of the operational standards and in the improvement of the product quality). BELL et al. , 1982, they had studied a galvanic plant, in Thailand, identifying that the absence of improvements in the processes and equipment was on to the absence of internal efforts to create resources capable to promote the changes that would be responsible for better indices of use of the installed capacity (FIGUEIREDO, 2003).

According with DOSI (1988) are existing differences between companies in terms of operational performance and those differences could be explained by the level of technology accumulated. In other words the accumulation of technology brings advanced resources for the firms and in consequence the capacitating. The comprehension of those questions is essential especially for developing countries companies that are in contact with a new competitive environment. Considering that those firms starts with technology levels lower than international patterns and to achieve it their performance rates should increase faster than developed countries companies. That's seems to reach international competitiveness depends how fast firms accumulate their technological capacities (BELL 1982).

Despite its relevance, this subject is quiet explored and some studies in companies of emergent economies have only investigated operational performance improvement associates with technological capacities of the firms. TREMBLAY (1994) studied producing companies of paper and cellulose, in Canada and India, finding strong correlation enters the growth of the productivity and the incorporated technological qualification in organizational systems. FIGUEIREDO (2001) develops and applies analytical models to explain how the learning processes influence how and at what pace technological capabilities accumulate and in turn examines the differences between steel mills in terms of perfecting their technical performance. Recent studies have adapted such models to apply them to cellulose, mechanical metal and paper companies but they do not examine the implications of technological capabilities accumulation when it comes to perfection of performance.

As result an analysis of development of these capacities and its consequences in competitive performance of the firms inserted in a context of developing countries still remains rare in corresponding literature. This article has the intention to investigate the technological capacities accumulation and its implications for the improvement of operational performance indicators in a sample of companies based in Rio de Janeiro, Brazil overtime. This information offers management examples of how to improve their internal indicators of performance through the accumulation of technological capacities in the process, product and equipment functions.

The operational performance of companies in developing countries also could be incentive by government policies or technological programs and innovation. Also this performance improvement could be directly influenced by further leaning process (BELL & PAVITT, 1993; DOSI, 1988) that support companies accumulate technological capacities. This is not the main scope of this paper but could be a theme of other studies. Besides all research studies developed on this subject still a gap of empirical study that exams the efforts to understanding innovative capability building on performance improvement at the level of firms, especially in small and medium firms and also in particular in the context of developing and emerging economies. This paper provides a contribution in that direction.

ANALYTICAL FRAMEWORK

The trajectory of accumulation of capabilities used in this study to analyze the sample of five metalworking firms is examined in light of the structure proposed by FIGUEIREDO (2001). This model also permit added empirical evidences that's contributes the understating of the patterns of technological capacities in developing countries using the model proposal by FIGUEIREDO (2002), adapted from LALL (1992) and BELL & PAVITT (1995). This study also tries to make a comprehensive empirical evidence of metalworking companies in Rio de Janeiro, Brazil one segment without other similar study in available literature.

This study has been structured to examine two main questions: (1) how the dynamic of technological capacity accumulation took place at the multiple samples of metalworking firms; (2) the implications of capacity accumulation for operational performance indicators. To examine these questions it was necessary to collect some primary qualitative and quantitative evidence of technological activities and the various process mechanisms used in the study unit. This evidence was obtained from several sources: interviews with managers, engineers and technicians, documents (reports, standards, historical data etc.) and direct observation. The individual case study method (YIN, 2001) was used. This method allows us to examine matters which have yet to be observed in literature in great detail. In the near future, this study will contribute towards a greater understanding of the relationship between the central questions presented into the Brazilian firms); in other words, the aim here is to perform an analytical generalization.

A schematically representation of the relations studied in this work is supplied through Figure 1. In it the diverse ring represents the influence of other factors on the trajectory of accumulation of technological capacities developed by the Company in the studied period. This trajectory, in turn, exerts an influence on the evolution of the operational performance of the studied Company, who is represented by the horizontal arrows, focus of this

study. The dotted lines limit the time of life of the Company while the vertical landmarks, in the main axle, delimit the period of the study.

This study it recognizes the importance in such a way how much the influence of other factors in the trajectory of accumulation of technological capacities and in the performance of the Company, such as: the organization mechanisms and processes of learning intra-Company (KIM, 1998; DUTRÉNIT, 2000; FIGUEIREDO, 2003; TACLA & FIGUEIREDO, 2003); “links” of knowledge between companies the interaction with Systems of Innovation (LALL, 1992; KIM, 1998); the influence of internal factors such as: organization leadership, values, culture and beliefs and of other external factors, such as: sources of innovation (P&D, customers, suppliers, competitors, organizations), geographic localization and natural resources, etc. However, these factors are not part of the target of this research.

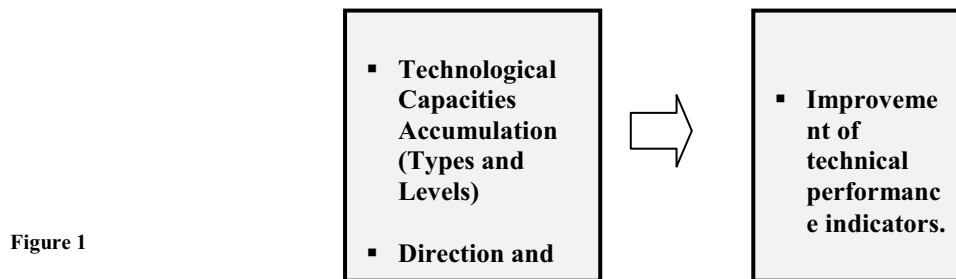


Figure 1

EMPIRICAL CONTEXT

This article is based on a multiple case study to examine the implications of technological capability accumulation in industrial performance indicators improvement. This study was made in a sample of small and medium metalworking firms in the state of Rio de Janeiro during the period of twenty to thirty years. The selected state of Rio de Janeiro was the first in Brazilian country pioneer of industrialization that starts production in the years 1940. When steel was first manufactured in Rio de Janeiro, Brazil, it served to support the development of other industries and regional infrastructures.

Rio de Janeiro can be divided into distinct regions, where strategically located some well characterized industrial segmented regions. In the region of “Médio Paraíba” are located the main automotive assembly plants, like the PSA consortium (Citroën and Peugeot) and Man Volkswagen Trucks, situated in Porto Real. In this form some suppliers and automotive partner had been developed or implanted branch offices close to these main companies. In the same region, in Volta Redonda city is located CSN (Companhia Siderúrgica Nacional), historical landmark of the Brazilian industrial development that demand supplying and also nearly to another great steelmaker Votorantim Metals. Also in this region we found, INB (Indústrias Nucleares Brasileiras) in Resende and Nuclep in Itaguaí closer to Angra 1 and 2, nuclear power plant installed in Angra dos Reis.

In the region of Great Rio De Janeiro it finds a concentration of diverse companies where we can point out the CSG (Companhia Siderúrgica Guanabara) of Gerdau group located in Santa Cruz suburb of Rio de Janeiro city, Marcolpo-Ciferal in Xerém, beyond other great entailed industries in Petrochemical region of Duque de Caxias and to the sector of Fine Chemistry in Jacarepaguá, other great suburb of Rio de Janeiro city. Another industrial prominence region is “Região Serrana”, composed mainly for the city of Nova Friburgo that mainly had its development by the implementation of industries from metalworking segment or the fine textile segment. We can also attribute the Swiss colonization of Nova Friburgo to explain its industrial profile.

The main customers of these companies are hosted in the state of Rio de Janeiro, as well as are local the majority of the competitors identified for the same ones. The majority of the local companies take care of the diverse sectors, only 5% is guided for the automotive sector, 2% for railroad worker and 1% for the naval one. (PRO-PME). The majority of them work in the manufacture, maintenance and/or assembly of equipment, parts and/or structures. The aggregate value generated by this sector around US\$ 80 million. The successive macroeconomic crises faced by the country, the concentration of industries in the regions to the innumerable south of Rio de Janeiro and other reasons had taken the metalworking industries of the region of the state of Rio de Janeiro Center-North the deep structural changes.

By the decline of metalworking demands in Rio de Janeiro other industries came to improve the local economy. The Oil& Gas industries starts in the middle of years 1970 pushed by the international oil crises. This segment also pushed for more industrial services and products support by metalworking firms. Beside this demand many companies could not supply it in reason that they do not have proper quality requirements. Now this segment was more than 200.000 employees with a turnover of US\$ 1,2 billion and represents 9,2% of Rio de Janeiro GDP. Five Companies are selected for this study and now they are named Alpha, Beta, Delta, Epsilon and Gama in order to represent metalworking in Rio de Janeiro, Brazil..

RESEARCH METHODOLOGY

The literature review was undertaken using the methodology proposed by NELSON and WINTER (1982). The analysis of the technological capacities accumulation is in accordance with a multiple case study in the companies. The data was collected in accordance with quantitative and qualitative based in the principle proposed by YIN (2001) to assure greater consistency of results and mitigate the limitations of each method adopted.

To answer questions of this paper it was chosen the method of study of comparative case for if showing more adequate to the proposal. This methodology is efficient when if objective to answer the questions of the type “How” and “Why”, that explain the deal with operational relations that more than occur throughout the time what frequencies or incidences. The study of case between companies also it is a research strategy that it looks to examine a phenomenon inside contemporary of its context in existing industrial environments. In such a way the study if it bases on primary, qualitative and quantitative evidences empirical, collected through direct interviews, legal documents analysis and direct comment in the installations of the companies research object.

In this work we considered six different levels of technology capacities, from the basic activities (Level One) until the advanced (Level Six), where the companies have capacity to developing new products and process themselves. The research performed a documental investigation and two main strategies: one using a predominantly structured deep interview, complemented by collection of performance indicators conducted with “in site” observation. The employees selected to interview are managers engaged in the firm's project portfolio, as well as executives responsible for strategic management. From interviews that had been carried through between the months of May to August of 2007, with on professionals to metalworking companies, with the objective to search evidences with regard to the activities and capabilities developed for the companies, for the construction and adaptation of the table of technological capabilities.

They will be raised, also, the activities directly related to the three analyzed technological functions, that is, process and production organization, products and equipment. This methodology is the one that better if applies to the analysis of problems that possess an essentially clarifying character. In this direction this work places that the case study it is more appropriate for studies centered in explained questions, not allowing an effective control on the investigated phenomenon.

Table 1 Model for Technological Capacities Accumulation for Metalworking Segment Analyze.

LEVELS OF FIRMS TECHNOLOGICAL CAPACITATION	TECHNOLOGICAL FUNCTIONS AND RELATED ACTIVITIES		
	PROCESS AND PRODUCTION ORGANIZATION	ACTIVITIES BASED IN PRODUCTS	ACTIVITIES BASED IN EQUIPMENTS
ROUTINE ACTIVITIES			
(1) BASIC	Basic or routine process activities or standard operations; Basic levels of Quality; Simple demands without integrate system; Random layout	External generic control; Restricted attendance to the local market; Basic requirements of Quality; Basic raw materials consumptions (commodities)	Manual universal equipment; Absence of procedures next to the work site; Without process statistical control; Equipment manual feeding

(2) RENEWED	More complex operations or technical requirements; Quality tolls (CEP, MASP, CCQ); semi-integrate Production orders ; Functional layout; Strategically production costs reduction; Production procedures and operators certified;	Start focus to external market; New suppliers development; Diversification of the portfolio and technical support implantation; Technical standard attendance (ASTM, API, ASME, SAE)	Semi-automated processes; Corrective maintenance of machines and equipment; Statistical control of the equipment ; entailed mechanics of equipment
INOVATIVES ACTIVITIES			
(3) BASIC INNOVATION	More activities with work cells; Certification ISO (9002 Process) without bottom knacks in the process; Production demand by customers; Industrial Design; Advanced quality tolls in the process (TQC)	Dimensioning part of products and modules composition based on existing head office patterns. Marketing tools to new product development.	Semi-automated equipments with PLC; Machines preventive maintenance; Statistical equipment control; Tolling for small adjustments or adaptations
(4)PRE - INTERMEDITE	Advanced Quality tolls in the process: FMEA, DFMA, QFD; Specific layout with PDMS; Implementation supply management (MRP); Attendance the specific markets (QS 9000, ISO TS 16,949)	Design and self developing products assimilation by licensing contracts; Subcontracting suppliers in order to product production.	Automated Equipments (CNC); Predictive maintenance of the machines and the equipment; Use of advanced programs for equipment control ; Integration of engineering projects (CAD/CAM);
(5) INTERMEDITE	Attendance to environment requirements (ISO 14,001); Lean Manufacturing, 6 Sigma, JIT; Development of process technologies; Layout organized for independent productive cells (SM)	Development of new products with head office centre, suppliers and customers; Development and selection of new products or correlated services.	Multi-functional centers of machining (Transfer); Integrated lines of production with automatic control; Use of advanced tools for maintenance control (TPM); Attended programming of the machines and the equipment

(6) SUPERIOR INTERMEDIATE	Systematic integration of the process with the too much sectors (ERP); Productive management system; Automated production with continuous use of robotics; Advanced tools in Process Engineering.	Complete new product and system development with P&D implantation. Use of Marketing tools to control product performance in the field and carry out innovation philosophy.	Total programming development with equipment interaction; Raised index of robotics in the production; On-line maintenance on-line
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Source: Adapted from FIGUEIREDO (2001), LALL (1992)

The structure to be used in the study was presented in Table 1. This structure is analogous to used for FIGUEIREDO (1999 and 2001) for the steel industry in Brazil, adapted of LALL (1992) and BELL & PAVITT (1995). This structure describes technological functions and related activities of routine and innovators, as distinction proposal for FIGUEIREDO (1999, 2001) BELL & PAVITT (1993, 1995), and was adapted, here, to describe the accumulation of technological capabilities in the industry metalworking.

The qualitative information describes the trajectory of accumulation of the technological capabilities related to the activities of process and production organization, products and equipment. Such information basically was related the companies capacity in adapting or to change the employed technology. That information had been gotten essentially from interviews, direct comment and document analysis of companies.

Also quantitative information presents the operational performance indicators and to on the numerical data of performance to the production of the companies. These indicators were chosen by function of its importance, as indices that identify to industries metalworking and being related with the presented technological functions. The set of chosen indicators and the validity of its application for the study in question had been validated by the engineers of production with experience in these industries.

EMPIRICAL EVIDENCES RESULTS

Technological Capabilities Accumulation

In terms of technological capabilities accumulation one Company reached Level Five (intermediate) of technological capacity in process and organization of production as well functions product and equipment. Four companies had reached Level Four (pre-intermediate) in the process function while three others had reached similar technological levels in the functions of product and equipment. The five companies had reached Level Three (basic innovation) in the process, product and equipment functions.

Table 2 Types and Levels of Technological Capacities Accumulation

TECHNOLOGICAL CAPACITIES LEVELS	TECNOLOGICAL FUNCTIONS AND RELATED ACTIVITIES		
	PROCESS AND PRODUCTION ORGANIZATION	PRODUCTS ACTIVITIES	EQUIPMENTS ACTIVITIES
ROUTINE ACTIVITIES			
(1) BASIC	5 100%	5 100%	5 100%
(2) RENEWED	5 100%	5 100%	5 100%
INOVATIVES ACTIVITIES			
(3) BASIC INNOVATION	5 100%	5 100%	5 100%
(4) PRE -	4	3	3

INTERMEDIATE	80%	60%	60%
(5) INTERMEDIATE	1 20%	1 20%	1 20%
(6) SUPERIOR INTERMEDIATE	0 0%	0 0%	0 0%

Source: From Field Research

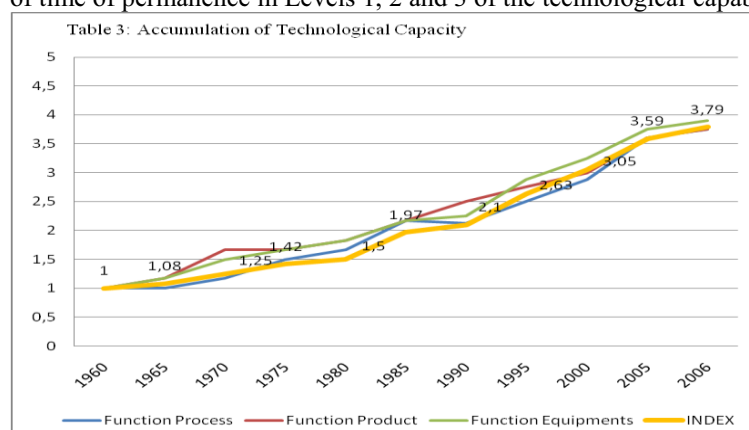
The Companies object of this study had initiated its activities operating in basic conditions, under the point of view of technological qualification. Later they had progressed of enterprising form, carrying through diverse efforts for qualification in functions process and production organization, products and equipment. These efforts they had followed a bigger aiming for the production, always supported for immediately market necessity. This fact is in accord with the theories of BELL (1982), DOSI (1988) and TREMBLAY (1994).

In generic terms, it was observed that the Company Delta accumulated higher levels. In terms of speed tax however the Company Beta accumulated technological capacities of form quicker than the others in a more recent period of supported comment and directly for a European industrial conglomerate.

Technological Capacities Accumulation: Function Process and Production Organization.

A comparative analysis of the process of accumulation is presented in technological accumulation in function process and production organization in studied companies. For the described previously empirical evidences had pointed that companies Alpha and Gama had advanced in its process of accumulation of technological capacities until the Level 4, in the function process and production organization. The evidence had suggested them that the Company Beta accumulated technological capabilities of routine (basic and renewed level), of form more sped up than excessively. In such a way, it was observed that the companies alone had started to carry through innovative activities from years 1990, while the Company Delta passed to still make it in years 1980. From 1991 the empirical evidences suggest that Epsilon Company reached Level 3 of technological capacities. E, from this period, it started to accumulate technological capabilities of slower form. Therefore, when initiating innovative activities, process e decelerated its accumulation in the technological function production organization, keeping this exactly level.

In the case of the Company Delta, however, it can be observed, for the gotten description, that Company advanced in the process and the production organization until Level 5 of capacities technological. It was observed that the Company alone started to carry through innovative activities in intermediate level in the function process and organization from 2005. Also if it can to observe that the companies had kept long periods of time of permanence in Levels 1, 2 and 3 of the technological capabilities.



Source: From Field Research

From 2001, the Company Beta sped up accumulation of technological capacities, as suggests empirical the evidences described, remaining in Level 4 of the technological capabilities from 2005. In function of acceleration of the accumulation of its capabilities, in the technological function process e production

organization, the Epsilon Company entered Level 3 of the capabilities technological since 1998, in its remaining until the present moment.

Technological Capacities Accumulation: Function Product.

The described evidences for the companies Alpha and Gama suggest that they had reached the Level 4 of the technological capabilities for this function product. Empirical evidences indicate that the Company Beta more accumulated sped up capacities of form of what excessively in this technological function, even so it developed capabilities for Level 4, while Company Delta developed ability for Level 5 in the function product.

The companies studied activities of routine for the function had remained many years carrying through product, that is, until years 199. Only from the opening of the economy, they had passed to carry through basic innovative activities in the function product. Then, from middle of years 1990 had entered Level 3 of the technological capabilities, even so if it can to observe that in this level it remained on average during five years, when entering the Level 4, decelerated its accumulation of technological capacity again.

In the case of the Company Delta, however, it can be observed that it remained making activities of routine (basic and renewed level) during twenty years, that is, at the beginning of years 1960 up to 1980. Then, from this moment, it initiated innovative activities for technological function of the product. The main fact from this phase was the acceleration of technological accumulation of capacities started to have in the Company Delta. Of Level 3 of technological capacities had been necessary ten years to enter Level 4. In this level of technological ability the Company Delta remained per four years and entered in Level 5 of technological capacities for the function product. Therefore, it accumulated ability for Level 5 of the technological capacities, while Company Alpha e Gama had developed capacities for Level 4, as they suggest the evidences qualitative described in the one for the technological function of the product.

Also it was observed that the Epsilon Company made use of thirteen years to reach Level 3 of capacity, remaining in this technological level until this moment.

Technological Capacities Accumulation: Function Equipment

The described evidences for the companies Alpha and Gama suggest that these had reached the Level 4 of the technological capabilities for this function equipment. Empirical evidences also they had shown that the Company Beta more accumulated capacity of sped up form of that excessively in this technological function, even so it developed capabilities for the Level 4, while the Company Delta developed ability for Level 5 in the function product.

For the Company Delta it was observed that this remained during twenty years in the levels basic of capacities, that is, at the beginning of years 1960 up to 1980 in the function equipment. Then, from this moment, the Company initiated innovative activities for the function technological of the equipment. From this moment it accumulated technological capacities in Level 3, remaining per ten years to enter Level 4 of capabilities technological. In this level of technological ability the Company Delta needed more five years to enter Level 5 of technological capacity for the function equipment. Therefore, it accumulated ability for Level 5 of the capacities technological, while the companies Alpha and Gama had developed capacities for the Level 4, as they suggest the qualitative evidences for the technological function of the equipment.

Also it was observed that the Epsilon Company needed twelve years to reach Level 3 of capacity, remaining in this technological level in the function equipment until gift.

Implications for Technical Operational Indicators Performance

Thus, from the analysis of the operational performance indicators of the companies studied in the understood period the 2006 enter 1997, are possible to visualize the evolution of the same ones on the other hand to the increment of the levels of technological qualification of these companies.

Also it observes the tax of variation of the indicators of each Company comparing the actions that the same ones had made throughout the time to adjust to necessities techniques or of market. Of joint form it was possible to verify behavior of the segment for the variation of these indicators and the points of greater intensity, as much of how much negative positive form. Evolution tables for better comparison of the data, organized had been elaborated of chronological form with proportional scales.

Table 4. Summary of Performance indicators

Technical Performance Indicator			Studied Firms					
			Alfa	Beta	Delta	Epsilon	Gama	Mean Variation
Process Indicators	1. Energy Consumption	Standard Device	0,760	0,101	1,504	0,345	0,183	0,579
		Mean	-21,4%	4,5%	-24,0%	7,7%	2,7%	-6,12%
		Variation Rate	-3,06%	1,08%	-3,08%	0,81%	0,66%	-0,72%
	2. Stand-by Hours	Standard Device	0,005	0,012	0,047	0,006	ND	0,018
		Mean	0,0%	-13,1%	-43,0%	-20,0%	ND	-19,03%
		Variation Rate	0,00%	-3,57%	-8,36%	-2,51%	ND	-3,61%
	3. Process Productivity Index	Standard Device	0,607	0,005	0,029	0,028	ND	0,167
		Mean	1,6%	0,0%	-0,9%	7,5%	ND	2,05%
		Variation Rate	0,15%	0,00%	-0,10%	0,80%	ND	0,21%
	4. Scrap Index	Standard Device	0,003	0,002	0,003	0,003	0,002	0,003
		Mean	18,3%	1,6%	-82,1%	-15,6%	-11,9%	-17,94%
		Variation Rate	2,56%	0,40%	-21,09%	-1,90%	-3,22%	-4,65%
	5. Re-Work Index	Standard Device	ND	0,001	0,006	0,003	0,002	0,003
		Mean	ND	4,0%	-31,8%	5,8%	1,6%	-5,10%
		Variation Rate	ND	0,97%	-4,35%	0,62%	0,39%	-0,59%
	6. Optimizing Rate	Standard Device	0,058	0,001	0,04	0,015	ND	0,029
		Mean	13,0%	0,2%	1,1%	1,4%	ND	3,93%
		Variation Rate	-0,83%	0,06%	0,27%	0,35%	ND	-0,04%
	7. Production Time	Standard Device	ND	0,115	0,169	0,339	0,177	0,200
		Mean	ND	5,0%	-10,7%	-7,6%	1,6%	-2,93%
		Variation Rate	ND	1,20%	-1,26%	-0,88%	0,39%	-0,14%
	8. Productive capacity vs. Installed Capacity	Standard Device	0,048	0,021	0,094	0,172	ND	0,084
		Mean	3,3%	-1,3%	31,0%	16,4%	ND	12,35%
		Variation Rate	0,40%	-0,33%	2,95%	1,67%	ND	1,17%
	Mean of Function Process	Standard Device	0,247	0,032	0,237	0,114	0,091	
		Mean	3,51%	-2,08%	27,84%	6,88%	2,30%	
		Variation Rate	-0,001	0,000	-0,044	-0,001	-0,004	
Product Indicator	1. Customer satisfaction Indicator	Standard Device	0,021	0,002	0,024	0,012	0,037	0,019
		Mean	6,5%	0,4%	2,6%	-1,9%	12,8%	4,08%
		Variation Rate	0,78%	0,10%	0,32%	-0,22%	2,95%	0,79%
	2. Delay Rate of Product Delivery	Standard Device	0,002	ND	0,016	0,004	0,007	0,007
		Mean	-53,9%	ND	-23,1%	47,1%	-5,0%	-8,73%
		Variation Rate	-8,97%	ND	-4,47%	4,19%	-1,29%	-2,64%
	3. Product Quality Index	Standard Device	0,451	0,116	1,263	0,876	ND	0,677
		Mean	1,0%	1,0%	138,4%	30,0%	ND	42,60%
		Variation Rate	0,10%	0,24%	9,20%	6,35%	ND	3,97%
	4. Charge Back Index	Standard Device	0,289	0,106	0,448	0,152	1,098	0,419
		Mean	-79,8%	-3,8%	-95,8%	-66,7%	-23,1%	-53,84%
		Variation Rate	-22,14%	-0,97%	-42,18%	-31,60%	-6,77%	-20,73%
	5. Delivering Time	Standard Device	0,846	6,057	0,333	1,985	1,128	2,070
		Mean	-28,2%	-57,5%	0,9%	1,7%	-12,8%	-19,18%
		Variation Rate	-3,74%	-23,86%	0,10%	0,42%	-3,47%	-6,11%
	Mean of Function Product	Standard Device	0,322	1,570	0,417	0,606	0,568	
		Mean	33,88%	15,68%	51,80%	9,20%	13,43%	
		Variation Rate	-0,068	-0,061	-0,074	-0,042	-0,021	
Equipment Indicators	1. Maintenance cost vs. Operational Cost	Standard Device	ND	0,001	0,004	0,002	0,003	0,003
		Mean	ND	-26,5%	56,7%	-11,2%	-14,9%	1,03%
		Variation Rate	ND	-7,99%	4,86%	-2,00%	-4,12%	-2,31%
	2. Equipment Productive Index	Standard Device	0,458	0,497	0,312	0,124	ND	0,348
		Mean	-2,1%	3,0%	1,2%	-20,5%	ND	-4,66%
		Variation Rate	1,62%	0,73%	0,13%	-5,91%	ND	-0,86%
	3. Equipments Average Age	Standard Device	ND	1,401	0,607	3,028	1,760	1,699
		Mean	ND	121,4%	1,1%	225,0%	32,9%	95,10%
		Variation Rate	ND	18,02%	0,12%	12,27%	5,53%	8,99%
	4. Equipment Set-Up	Standard Device	ND	0,132	0,225	0,392	0,526	0,319
		Mean	ND	-2,2%	-18,8%	-35,8%	-14,0%	-17,70%
		Variation Rate	ND	-0,54%	-2,33%	-11,42%	-3,85%	-4,54%
	Mean of Function Equipment	Standard Device	0,458	0,508	0,287	0,887	0,763	
		Mean	-2,10%	-22,43%	-9,45%	-49,63%	-1,33%	
		Variation Rate	1,62%	2,56%	0,70%	-1,77%	-0,81%	

Source: From Field Research

Result of Process and Production Indicators

It was verified that Alpha and Delta companies reduced their energy consumption. In the Company Alpha the reduction was 5,27 to 4,14 kWh/t (1998 the 2006) being equivalent one variation rate of 3,06%. In the Company Delta this variation was of 5,93 for 4,51 kWh/t, representing one variation rate of 3,08% (1997 to 2006). In counterpart it was observed in the companies Beta, Epsilon and Gama the rise of this indicator. Company Beta increases from 2,02 to 2,11 kWh/t (1997-2006) equivalent to variation rate of 1,08%. In the Epsilon Company the variation was 1,70 for 1,83 kWh/t, representing variation rate of 0,81%, (1997 the 2006). The Company Gama raised from 1,86 to 1,91 kWh/t consumption of electric energy (2002-2006) with annual variation rate of 0,66% (Table 4).

In relation to the stand by hours the reduction in companies was observed Beta, Delta and Epsilon. In the Company Beta this reduction was of 10,7% for 9,3%, (2006-2002) being equivalent to an annual variation rate 3,57%. In Company Delta this variation was 17,2% to 9,8%, representing an annual variation rate of 8,23% (2006-1999). Epsilon Company reduced these indicators of 4,5% for 3,6% (1997-2006) with annual variation rate 2,45% (Table 4). It not verified variation in the Alpha Company while the Company Gama does not control these indicators.

The companies Epsilon and Alfa had improved the process productivity index. In Alpha Company the increase was 97,8% to 99,2%, (1997-2006) presenting variation rate 0,15%. In Epsilon Company this variation was of 89,3% for 96,0%, representing one tax annual average of 0,80% in the period enters 1997 2006. In the Company Delta it had a reduction of 86,1% for 85,3% (1997-2006) with variation rate 0,10% (Table 4). Was not verified modification of this index in Company Beta and these data had not been gotten in Gama.

For scrap tax index reduction was verified in Delta, Epsilon e Gama firms. In Delta this reduction was 1,40% to 0,25 (1997-2006) equivalent to variation rate 21,09%. In the Epsilon Company the variation was of 2,75% for 2,32%, representing variation rate of 1,90% (1997-2006). Company Gama reduced from 3,86% to 3,40%, (2002-2006) being equivalent variation rate 3,22%. The companies Alpha and Beta had presented increase in these indicators with annual variation rate 2,56% (1997-2006) and 0,40% (2002-2006).

The only Company that reduced rework index was Company Delta 2.42% in 1997 to 1, 65% in 2006. This represents variation rate 4,35%. In counterpart companies Beta, Epsilon and Gama had raised this indicator. Beta increase from 2,00% to 2,08% (2002-2006) being equivalent variation rate of 0,97%. In the Epsilon Company this variation was 1,72% to 1,82% representing variation rate of 0,63% (1997-2006). Gama rose 1,86% to 1,89% (2002-2006) with variation rate 0,39%. Beta increased from 52,00% for 52,12% (2002-2006) being equivalent variation rate 0,97%. In the Company Delta this variation was of 81,30% for 82,20%, representing variation rate of 4,35% (2002-2006). The Company Epsilon rose of 70,00% for 71,00% (2002-2006) being equivalent to variation rate 0,62% (Table 4).

Delta and Epsilon had reduced the average optimizing rate. In the Company Delta reduction was of 1,97 to 1,76 hours (1997-2006) presenting variation rate 0,27%. In the Epsilon Company this variation was of 1,98 for 1,83%, representing one it variation rate of 0,35% (1997-2006). Company Beta had increase the optimizing rate from 2,02 to 2,12 hours (2002-2006) representing variation rate 0,06%. In 2006 at Company Alfa were observed a small variation of 1,86 to 1,89 hours in 2002, representing variation rate of 0,83%.

The production time in comparison with the installed capacity was raised in companies Alpha, Delta and Epsilon. Beta increased of 62,00% for 63,00% (1997-2006) presenting variation rate of 0,33%. In the Company Delta this variation was of 58,0% for 76,0% variation rate 2,95% (1997-2006). Epsilon rose of 61,00% for 71,00% (1997-2006) being equivalent variation rate of 1,67% (Table 4). On the other hand beta was observed in Beta a small reduction of 75,0% for 74,0% (2002-2006). This represents variation rate of 0,33%.

Result of Product Indicators

Alpha, Beta, Delta and Gama had improved the customer satisfaction indicator. In Alpha Company this improvement was of 92,4% for 98,4% (1998-2006) being equivalent variation rate of 0,78%. In the Company Beta this variation was of 94,9% for 95,3% representing variation rate 0,10% (1998-2006). In the Company Delta this improvement was of 95,1% for 97,6% (1998-2006) with variation rate of 0,32%. In the Company Gama the increase was of 75,2% for 84,8% (2002-2006) corresponding variation rate of 2,95%. Epsilon Company reduced of 98,5% to 96,6% (1997-2006) being equivalent in variation rate of 0,22% .

In relation the delay rate of the products delivery, observed a reduction in companies Alpha, Delta and Gama. In the Alpha Company this reduction was of 1,3% for 0,6% (1997-2006) being equivalent variation rate 8,97%. In

the Company Delta the variation was of 6,5% for 5,0%, variation rate 4,47% (2006-2000). Gama reduced of 16,0% for 15,2% (2002-2006), presenting variation rate 1,29%. In the Epsilon Company it had an increase of the tax of 1,70% delay for 2,50% (1997-2006). This represents an annual variation rate of 4,19%.

The companies Alpha, Beta, Delta and Epsilon had raised its indices of product quality. In the Alpha Company this improvement was of 6,25 for 6,31 (1997-2006), being equivalent variation rate of 0,10%. In the Company Beta this variation was of 3,05 for 3,08 representing variation rate of 0,24% (2002-2006). In Company Delta this variation was of 2,37 for 5,65 (1997-2006) being equivalent to variation rate 9,20%. In the Epsilon Company the increase was of 7,63 for 9,92 (2002-2006) corresponding to variation rate of 6,35%. It was not possible to get the indicators of the Company Gama.

All the companies had also improved charge back index. In the Alpha Company the reduction it was of 0,74 for 0,22 (1997-2006) presenting variation rate of 22,14%. In the Company Beta this variation was of 2,11 for 2,03, representing variation rate of 0,97% (2006-2002). Delta presents a reduction from 0,95 to 0,04 (1997-2006) presenting variation rate 42,18%. In the Epsilon Company the reduction was of 0,60 for 0,20 (2002 the 2006) showing variation rate of 31,60%. Gama reduced from 1,95 to 1,50 (2002-2006) showing variation rate of 6.77%.

For the delivery timing the reduction was verified in Alpha, Beta e Gama firms. In the Alpha Company this reduction was 8,42 to 6,05 days (1997-2006) being equivalent to variation rate of 3,74%. In the Company Beta variation was of 23,66 for 10,05 days representing variation rate of 23,86% (2002-2006). Gama reduced from 18,40 to 16,05 days (2002-2006) demonstrating variation rate of 3,47%. The companies Delta e Epsilon had presented increase in this indicators with annual average taxes of 0,10% (1997-2006) and 0.42% (2002-2006). respectively.

Results of Equipment Indicators

In relation at the cost of maintenance compared with the operational cost one was verified reduction in the companies Beta, Epsilon and Gama. In the Company Beta this reduction was of 0,68% for 0,50% (2002-2006) equivalent to variation rate of 7,99%. In the Epsilon Company the variation was of 1,75% for 1,58%, representing variation rate of 2,00% (2006-2000). Gama reduced from 2,68% to 2.28% (2002-2006), equivalent to variation rate 4,12%.

Improvement in the index of productivity of the equipment in companies was observed in Alpha, Beta and Delta. In the Alpha Company this improvement was of 5,60 for 6,49 (2006-1997) equivalent to variation rate of 1,62%. In Company Beta the variation was of 3,02 for 3,11%, representing an annual average tax of 0.73 (2002-2006). The Company Delta rose of 5,14% for 5,20% (1997-2006) corresponding to variation rate of 0,13%. In counterpart Epsilon presents variation from 1,51% to 1,20% representing variation rate of 5,91% (2002-2006).

In relation the equipments average age index Company Beta increases from 2,80 to 6,20 years (2006-2002) presenting variation rate of 18,02%. In Company Delta this variation was 14,04 to 14,20 representing variation rate 0,12% (2006-1997). In the Epsilon Company it had rise of 4 for 13 years (1997-2006) representing one variation rate of 12,27%. Gama increased from 14,52 to 19,30 years (2001-2006) being equivalent variation rate of 5,53%. It was not gotten values of these indicators in alpha Company.

Finally in Setup indicator of equipment a reduction was verified in Beta, Delta, Epsilon and Gama. In Beta the variation was of 2,33 for 2,28 hours (2002-2006) presenting variation rate of 0,54%. In the Company Delta this reduction was of 1,22 for 0,91 hours (1997-2006) being equivalent a variation rate of 2,28%. In the Epsilon Company the reduction was of 1,85% for 1,20% representing variation rate of 10,26% (2002-2006). Gama reduced from 2,28 for 1,96 hours (2002-2006) presenting variation rate of 3,71% (Table 4).

CONCLUSION AND IMPLICATIONS

This paper contributed to the understanding of how technological accumulation aid a sample of metalworking firms improves their industrial performance indicators in three functions. The evidence suggests that the improvement in techno-economic performance has been influenced by the accumulation of technological capacity and that this has contributed towards the improvement in the firm's competitiveness. The evidences showed in empirical evidences allowed us to conclude that.

To leave of the data, tables and the presented texts the executed procedure was a direct comparison enters the phenomena of accumulation of technological capabilities in the companies and it enters its results of the operational performance. And to leave of this comparison had been identified points that had answered to the

questions proposals in this article. The procedures for analysis of the collected information had been organized in such way that they had allowed in first plan to mount a preliminary report on the basis of interviews and information given for the informers of the organization on the functions process and production organization, products and equipment. More specifically we can detach the following points. In the beginning of its operations the companies in study only had basic capabilities for its operations. However, throughout the time, these companies they had developed individual processes for the accumulation of technological capacities.

Despite the companies being in the initial phase of technological development second BELL et al. (1984), its respective capabilities had been being accumulated, constructed e improved throughout the time. The evidences suggest that the evolution of trajectories of accumulation of technological capabilities for the three functions in study it occurred of distinct form in the studied companies. In these terms of accumulation of technological capacities, were verified that a Company reached Level 5 in the functions process and production organization, product and equipment. Three companies they had reached Level 4 in the function process while others two had been had reached exactly technological level in the functions of the product and equipment. Two companies they had reached Level 3 in the product functions and equipment and one remained in this level in the function of the process;

The presented results suggest that the accumulation of technological capabilities in process and production organization, products and equipment are important for the development of the operational performance indicators of the companies studied. This importance comes of the fact of that such capabilities are associates to development of directly on activities to the process of efficient production and the product quality. In terms of improvement of the indicators of performance the Company who reached Level 5 of technological capacity improved in 70% its indicators of performance, while the Company that had arrived in Level 4 they had raised its indicators in 60% and the other companies with Level 3, had gotten it improves in the 40% order. It was evidenced that the companies who had gotten high levels of technological capacities had obtained had improved its indicators of performance.

In summary, the evidences show that capacities accumulation promoted improvement of the operational performance of the studied companies. In this direction carried through study it confirms conclusions of previous works on the importance strategically of the accumulation for companies in developing countries. It is basic the identification and constant observation of the process indicators, product and equipment, being vital for the correct evaluation of the effectiveness of the same ones. With indicators without consistency do not have controlled process and for consequence, results adjusted. The managers must have a special attention in the indicators that had assisted in decision taking.

The presented empirical results throughout this article point with respect to the strategically character of the accumulation of capacities in the process and production organization, products and equipment, that are closely associates to the quality and competitiveness of the products, to the reorganizations of Layout industrial and to the quality of the productive process. The necessity to accumulate technological capacities is overcome necessary due to the one of level requirement of the customers and consumers with regard to the product quality and also to the necessity of the products if to take competitive, to concur in a globalized market. In this way, being associated directly to the process, the accumulation of the capabilities studied in this work becomes an important factor in the operational result of the organizations.

In the same way we leave as class representative proposals for the representatives of the government and entities, the creation of one politics directed toward the technological and financial improvement of the organizations. This small politics would have to favor the e mainly average companies who are very vulnerable to the external competition and the restricted financial capacity. They could be created Clusters, where the presence of companies of one exactly segment, next the deep centers of research and stimulated by sartorial, would give to greater sustainability so that these companies could innovate and add value to its products. In way equivalent, the companies could group in the form of cooperatives, aiming at one better negotiation in the purchase of raw materials or have a definite more competitive price through the increase of scale in similar products. This model depends on a good agreement of the entrepreneurs and the support of the representations for consolidation.

This paper provides a contribution with an empirical study that exams the efforts to understanding innovative capability building on performance improvement at the level of firms, especially in small and medium firms and also in particular in the context of developing and emerging economies

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THE PROTECTION OF ELECTRONIC INFORMATION AT THE WORKPLACE, WITHIN THE SOUTH AFRICAN CONTEXT: LEGAL AND ETHICAL CHALLENGES

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ABSTRACT

With the advent of new technology, more in particular the internet, access to electronic information can take place at the press of a button, on a world-wide scale. Ease of access to electronic information can present both threats and opportunities. This has raised, and continues to raise, both legal and ethical challenges. It can create possibilities for illegal access to the information, and sometimes merely unethical conduct. The paper will reflect on the current challenges and threats faced by employees at work, with regard to illegal and/or unethical practice of accessing their communication or information, by employers. The paper will argue that though the current legal framework does adequately protect employees against access, it needs some beefing up, more especially in the area of implementation mechanisms and monitoring. The paper will use some established legal and ethical theories to critique the practice. The paper will argue that it is wrong to access electronic information of employees, unless the situation justifies it, no alternatives exist except accessing the information, and that a legally and ethically rigorous process need precede such access. The paper will then recommend that government should develop a code of good practice relating to access to electronic information, so as to guide implementation of, and compliance with, the current laws. Such code of good practice will also ensure that employers' policies and practices should reflect this spirit.

INTRODUCTION

With the advent of new technology, interception of information or access to private communications has become very easy. This has generally caused an outcry, as this is perceived to be an infringement on the right to privacy. This also undermines the right to human dignity. These are important protected values under our constitution, and most other democratic constitutions of the world. Most cultures also respect and guard these values. What are the ethics of such prohibition and/or regulation, as well as its opposite, the trends towards more intrusion? The paper will first try and show how different ethical and legal theories would approach this issue, and therefore serve as justification for a particular approach.

THE RELEVANT ETHICAL THEORIES

Deontological theory

This is a principle-, duty-, or action-based theory. The theory uses the rightness or wrongness of an action as the starting point. The theory is one of those theories whose focus is guiding our actions (Alexander and Moore 2007:1). Compliance with moral obligations is its central point (Alexander and Moore 2007: 4). The theory's less focus on the ends also entails not using humanity as a means to an end. Humanity should be treated as an end in itself. This arises out of the Kantian emphasis on respect for persons.

How is wrongness or rightness of an action determined? An action is either right or wrong because it is so (Davis:17). If an action is considered to be wrong, it should not be undertaken, even if harm would occur if it is not so undertaken. Further, even if refraining from doing so would lead to the violation of other deontological rules by others.

Finally, it should here be understood that the position is not that deontologists ignore consequences completely, they simply do not, unlike consequentialists, use them as their basis of taking decisions. The theory's shortcoming, amongst other short-comings, is that where there are two conflicting rules or principles to be respected, it cannot easily account how the problem should be resolved, as any other rules have to be respected.

The theory of consequentialism

Consequentialism is a moral theory focusing on the consequences of an act. The theory is sometimes referred to as utilitarianism, where the consequences of an act will be its utility or usefulness. The principle of utility owes its origin to Jeremy Bentham, where happiness is the ultimate of all our activities (Rachels 2010: 97). The theory's starting point is whether the consequences or results of a particular act are good. The goodness of the results of an act therefore implies the rightness of the act.

The argument by utilitarians therefore goes: If the results of act/action X are good, it then follows that action X is right. This means that the rightness of action X is so merely because the results produced by action X are good. The expression, 'the end justifies the means' is therefore its inner logic (Rachels 2010: 110). If used in contexts like law-making, it will mean that legislators, when making law, could be guided by the happiness that the law will result in for society (Rachels 2010: 100). This principle could equally apply to judges and other interpreters of law, and law enforcement agencies. Their approach could be guided by utilitarian values.

An act will be said to be good if it produces happiness, pleasure or is useful. What will constitute happiness, pleasure or usefulness will depend on the context of each act. Sometimes teething problems arise where what might appear to be happiness in one sense, might be viewed as unhappiness in another sense. Where various, competing acts are likely to produce happiness, the act that produces the most/greatest happiness will be chosen.

Criticisms have been levelled against the theory, namely that the theory's requirement that each one's happiness must be treated as equally important (Rachels 2010:115) and against the theory's emphasis on consequences (Rachels 2010: 111).

In conclusion therefore, despite the fact that the theory has certain shortcomings, if applied broadly, in the sense of interpreting happiness in such way that it is really the kind of happiness that benefits society, it will be coherent (This is unfortunately not the case currently). If applied in a very limited sense, it may assume other forms, including ethical egoism, where the happiness is one only promoting the interests of an individual. That will be catastrophic, as humanity can possibly be used as a means to an end, so long as the consequences are good.

Virtue theory

The theory is character-based. It seeks to focus, not on the actions, but on the character of a person. When it does focus on the actions, it assesses the rightness or wrongness of an action on the basis of the character of a particular aspect. The qualities of justice, courage, empathy, are therefore some of the virtues so recognized. Most other values associated with ubuntu are also recognized as important virtues.

Though this theory may not be the best in explaining actions in all situations, the theory can be very valuable in the context of labour relations. Labour relation is built around certain key features, which we can here refer to as virtues: Equity, fairness, flexibility etc. Virtue theory can therefore be very relevant in assessing the ethical correctness of accessing electronic information. The employer should therefore, in determining whether to access the information or not, not rely on technicalities. For example, reliance on general, assumed consent, given by

virtue of just existence of policy is too technical to be accepted. The problem with virtue theory might be that not all values are obviously covered by the theory. A person still has to judge as to which values will be acceptable.

LEGAL AND CONSTITUTIONAL THEORY

Though there can be various sub-theories within the broad legal theory, in the context of the discussion here, the various legal principles relevant for assessing the correctness of accessing electronic information have been clubbed together as legal and constitutional theory. There are various sources that can give rise to this broad theory, namely statute law, case law, common law, and Constitution.

Statute law

Electronic Communications and Transactions Act 25 of 2002.

The Act mainly deals with the protection of electronic information in South Africa. It has, as one of its objects, the development of a safe and secure environment for the consumer, business and government to conduct electronic transactions (s2(1)(j)). This includes the protection of personal and related information. S86 prohibits unauthorized access to, and interference with, data. Unauthorized access may include selling, or offering for sale, designing, adapting for use, distribution or possession of any device or computer program meant to overcome security measures. It further includes the performance of acts relating to passwords, security codes or related activities, with intent to commit the prohibited acts (s86(3)). The prohibition extends to any utilization of any such devices or programmes to overcome security measures (s86(4)).

The above is however not an absolute prohibition, in the sense that the prohibition is subject to legislation allowing interception and monitoring of communications, the *Regulation of Interception of Communications and Provision of Communication-related Information Act, 2002*) (previously the *Interception and Monitoring Prohibition Act 127 of 1992*).

The Act (*Electronic Communications and Transactions Act*) is more articulate on the protection of personal information. This information includes but is not limited to, private and confidential correspondence (s1(f)), views or opinions of another individual about the individual (s1(g)) and information about the personal opinions, views or preferences of the individual, except where they are about another individual or about a proposal for a grant or award or prize to be made to another individual (1(e)). The Act sets out parameters within which such information can be accessed. The data controller should only access the information with the written consent of the data subject (s51(1)). The data controller should only have the information necessary for the lawful purpose for which the personal information is requested (s51(2)). Data controller may not disclose the information unless required by law or authorized in writing by the data subject (s51(6)).

RICA (Regulation of Interception of Communications and Provision of Communication-related Information Act, 2002)

When can the act come into the picture? The Act (RICA) is a successor to the Interception and Monitoring Prohibition Act 127 of 1992. It regulates the interception of communications. It, on the whole, prohibits interceptions, except under a few instances. Even in these limited instances, the Act sets out parameters within which interceptions should take place. On the whole, usually outside business context, the Act emphasizes judicial oversight i.e a court order is required before interception can take place. In the context of business (employment in this context), the Act, though a bit ambiguous, appears to allow interceptions under certain circumstances (s6). These circumstances are defined by the purpose of the interception (s6 (2)(b)), the type of information to be accessed (s6(1)), and the manner of so accessing the information (6(2)(a) and (c)) etc.

Constitutional framework (Constitutional theory)

Though the constitutional framework or constitutional theory can also be viewed as an ethical theory, in the sense that its frameworks are also closer to the rights' theories and to some extent deontological theories (e.g the Kantian respect for persons), it is here discussed as a legal theory.

The theory of constitutionalism promotes respect for the constitution of a particular country. Though traditionally, in liberal societies, constitutionalism seeks to limit government power and not private power, in the South African context, the constitution does limit private power. The limitation of private power is in the form of the application of the constitution to private persons i.e horizontally. This means that private persons, including juristic persons like companies, are also obliged to respect the constitution and its values. These protections are usually in the form of Bill of Rights, which protects the fundamental rights of individuals. Applying the theory to the context of the Bill, the Bill might have some restriction in terms of access to information, therefore limiting the rights of persons under the Constitution. S14 (d) of the Constitution provides that everyone has the right to privacy, which includes the right not to have the privacy of their communications infringed. The section does not have any internal qualifier (internal limitations). The limitations will therefore mainly be under the general limitation clause, i.e s36.

The Common law

Under common law privacy is recognized as an independent personality right (Burns 2001: 185). It follows that violation of privacy will constitute a delict. Delict will have been committed if an intentional act is unlawful, and results in the violation of one's dignity (causes damage), amongst other requirements. It will not be committed if certain factors are present, eg. Consent has been given to the violation. This implies properly given consent, and the access to the information falls within the terms of the consent. Not only does violation of privacy constitute a delict, it also constitutes a crime of *crimen injuria*. The crime of *crimen injuria* is defined as by Snyman (Snyman 2002: 453) as unlawful, intentional and serious violation of the dignity or privacy of another. This means that whoever accesses private communications unlawfully will be committing both delict and crime. The commission of the delict will result in civil action against the intruder, while the commission of the crime will result in criminal prosecution by the state. The state takes strong interest in the protection of the dignitas of the individuals, as this is important for the purposes of maintaining peace and order (Burns 2001: 195).

WHO ARE THE MOST LIKELY INTRUDERS INTO INFORMATION?

The list of possible intruders cannot be exhausted here. The paper is here only concerned with those persons who intrude, or attempt to do so, under the clone of the employment relationship with the employer. In other words, the intruders are employees of the employer, who either work within the scope of employment, or purport to do so, even if their judgement about having authority to act in a particular way might turn out to be incorrect.

The type of employees likely to intrude will also depend on the nature of the organization. The following are just but examples of those most likely:

COMPUTER PROFESSIONALS

These may include systems administrators, and computer support staff. Their positions make it easier for them to access information, given that they will be assisting other employees from time to time on this. They also have passwords that give them easy access. It is generally not objectionable for them to become aware of other information, in the process of administering the system, or doing repairs on the system. The problem arises when they use the information so accessed for a purpose other than the purpose received for. A problem might also arise where they deliberately start looking for, and accessing information for some other purpose than legitimate purposes (e.g where an employee to whom the information relates might have given specific consent). Not only are the computer professionals bound by the laws of the country e.g Electronic Communications and

Transactions Act, but they should also be bound by the ethics of their own professions. The professionals usually find themselves in compromising situations, sometimes involving a conflict of interest, for example, between promoting the employer, and a violation of professional ethics. They should therefore try to avoid the conflict of interest, and therefore minimize the harm (Bynum 2008: 24).

INTERNAL AUDITORS

Internal auditors usually have to perform duties that require them to access a variety of information, so as to enable them to perform their work. This might easily give them unbridled authority, with very little oversight mechanism. They, however, might also have a challenge of accessing information that they should not have accessed. Though they are also bound by professional ethics of their profession, it is not easy to monitor how information that they accessed, which they were not entitled to access, might be used. This can leave the employees vulnerable to abuse of their information.

WHAT ARE THE POSSIBLE MOTIVATING FACTORS AGAINST INTRUSION?

The motivation for intrusion

Consequentialist motivation

The motivation for intrusion might be built around the need to achieve certain results, at whatever cost. The pro-intrusionists might only look at the end of their actions (intrusive acts), i.e. whether they will get certain information that will assist them. If those ends are considered good, they then conclude that whatever means available should be justified to achieve those ends. Therefore, the means (intrusion), justifies the ends of getting information that may assist them. Respect for humanity is none of their business. The pro-intrusionists are therefore, theoretically, consequentialists. If consequentialism is adopted in this context, it might not be the ideal approach.

Other motivations

Intruders might also have other motivations based on ownership of the information and of the instruments containing the information. That they own both the information (in the case of employer information, and the instruments containing the information) might be another possible motivation for the intrusion. This argument flies in the face of the fact that, in case of employer information, it is not always clear-cut as to which information might belong to employer and which not. The employer will need to first go through the information to find the distinction, if any. The process of finding that distinction will, upon completion, have entailed access to what might not belong to the employer. Such access is not reversible, and no apology is even appropriate, as it will not erase the memory already transferred to the intruder.

As to the ownership of the physical assets, this is a flawed argument. If it is really about ownership, the employer could only ask for its return (of the physical assets), based on good reasons. The information inside will then be ideally erased, for them to have the empty box.

The motivation against intrusion

Those favouring non-intrusion into private communications will be motivated by the fact that there are rules and principles to guide us on this. They will argue that we have a duty to respect these principles. If there are

principles against the violation of human dignity, as well as privacy, as there are in the South African law, the principles need to be respected. Again, they will argue that no ends will ever justify violation of these principles, and treating humans as means to an end. Violation of human dignity is no different from disrespecting persons, something deontologists detest. Persons pursuing these arguments will therefore mainly be deontologists in outlook.

Persons in this category might also ask: What type of employer or employee do we need? In answering this question, they will be looking at the qualities that any of these parties need to have. They will therefore not want an employer who undermines human dignity, who creates distrust, who operates clandestinely etc. Persons asking these questions will therefore mainly be virtue theorists in outlook.

WHAT ARE THE CURRENT CHALLENGES AROUND ACCESS TO INFORMATION BY EMPLOYERS?

Employers usually do not have internal frameworks for such access

By internal frameworks I mean parameters within which they need to operate. A policy might exist, but might be silent about certain aspects like who must access, how should the accessed information be treated, etc. Even if the policy is not silent, there might be a challenge where there might be no oversight and monitoring mechanism in case of abuse of access. For example, once the intruder has accessed the information, what guarantee does the data subject have that the information won't be used for an unintended purpose?

Interpretation of policies in isolation

Even though employer might have a policy articulating what should happen, a problem might still arise with respect to interpretation of the policy. The policy might be interpreted in isolation from other instruments like national legislation and the constitution. It might not take into account that any policy whose content or interpretation thereof does not accord with the constitution is invalid. This implies that the content, interpretation and implementation of the policy must promote the values in the constitution, which are: equality, human freedom and human dignity (s39 (1)(a) of the Constitution).

Another important aspect is that the content, interpretation and implementation of the policy must also accord with other internal policies of the employer. The policies cannot be read in isolation from one another.

Absence of, or weak, enforcement mechanisms by government

There is also a current gap that although the government might have enough laws to deal access to electronic information, its enforcement mechanism might be weak. For example, despite that we currently have the Electronic Communications and Transactions Act (ECTA) and RICA, which discourage unauthorized access to communications, the enforcement mechanisms have not been effective. This leaves the public still vulnerable to unscrupulous elements both within and outside the workplace, who illegally access information.

THE SOCIAL IMPACT OF INTRUSIONS

A brief look at the possible social impact of intrusions is intended to show why ethical and legal sanctions are necessary to discourage intrusions. The following are some of the possible effects:

Psychological impact

This may take many forms. The victim of intrusion might simply fear the unknown. The employees don't always know the identity of the intruders at the particular point in time, or the type of information to be accessed. This uncertainty breeds another form of uncertainty: how the information will be used, and for what purpose. Because the employee is usually not involved when the information is being accessed, the fear of abuse of the information also grows. It might be that the 'lawful' intruders might not themselves misuse the information, but it remains unclear if they will keep the information safe enough from accessibility by others, who might not have any ethical responsibility to keep the information confidential or safe.

The insecurity of the information

This aspect relates closely to the aspect in (i) above, but here the emphasis is on the fact that the information accessed by somebody else, over whom the employee does not have control, is likely to be insecure. What guarantee does an employee have that the information will not be tampered with? Tampering can take place in many ways: for example, possible deletion of information or modifications thereof. The employee might not always have the resources to verify this.

Undermining the human rights and constitutional ethos

In a constitutional democracy, which prizes human dignity and respect for privacy, any uncontrolled access to private communications can breed a new culture of lawlessness. This new culture will have very little respect for human dignity, and privacy. This culture may spill over to intrusions outside the workplace. It may also breed new forms of violations of human rights, even those not confined to human dignity and privacy.

Creation of an environment of mistrust

Any unbridled access to private communications might create an environment of mistrust between employers and employees, or between employees themselves. This mistrust may spill over to other areas of activity. It may affect communications in general, as other persons, including outsiders, who have to communicate with the employee might not know that their information is being accessed by unintended recipients. The knowledge that the information has been accessed can affect the way outsiders relate to the employer or employees of the employer.

WHAT ARE THE REMEDIES IN CASE OF VIOLATION?

An employee can have some remedies under various categories of legal principles already discussed above. An employee can institute common law claims for damages, based on delict, if he can show that the interception was a wrongful act intentionally committed by the employer, with resultant damage. Infringement of one's privacy is no doubt a delictual act grounding an action. The employee could also rely on the common law contract of employment, which prohibits acting in bad faith by any of the parties. Any authorized access to employee information could be a breach of contract, on the basis of which an employee could claim damages. Under the constitutional law, the employee can also claim to have the act complained of declared unconstitutional. An interdict against the invasion of privacy is also possible under a variety of legal principles in South Africa.

WHEN WILL ACCESS TO ELECTRONIC INFORMATION BE ETHICALLY AND LEGALLY PERMISSIBLE?

What employers ought to do?

So as to answer this question, we need to pose a further question: what type of qualities do we expect from the employer, and what type of qualities do we expect from the employees? The character of the employer and the employee will define the employment relations. Equally, the character of the employment relations will influence the character of its key stakeholders, mainly the employer and the employee. Employment relations need to reflect certain attributes, being fairness, equity, transparency, consensus-driven relationship, trust-based relationship, empathy etc. These qualities are equally expected of the parties to the relationship i.e employer and employee. These are the qualities that can strengthen and sustain any employment relationship.

These qualities will therefore also define the kind of action to be taken. In other words, whether the action taken by the employer to access the information is the correct one or not will be guided by its core values and qualities. For example, if the employer has a policy, and the employee is required to give consent to the specified type of information to be accessed (not blanket consent clause), this might lead to lesser tension. Equally, if the employer first creates and explain to the employee the parameters within which access might take place, for the specified type of information, this will also lessen the possible harm to be occasioned by the access. Again, if within the employer, there are oversight structures to monitor those who access the information, so that the whole process be transparent, this might also lessen the possibility of abuse of the information by those accessing the information. Again, the employer's actions need to be guided by internal policies, national policies and laws, and the country's constitution. This will imply respect for the rights of the employees, more in particular his dignity and privacy. It implies respect for persons, where persons are treated as ends in themselves, and not as means to an end.

From the point of view of ethical theory, it has been observed above that the dominant theories, namely consequentialism and deontology do not focus on the character of persons, and even institutions when assessing the rightness or wrongness of an action. Equally, virtue theorists, who mainly focus on the character of persons, also do not focus on the action of a person, but the character of the person. I here submit that it is important, when assessing the ethical correctness of action, to assess both the character of the person (including institutions, and systems) and the action (but mainly in a deontological sense, as I am not inclined towards consequentialism).

What government needs to do?

Though, from an industrial relations perspective, government is a key stakeholder to industrial relations, in this paper it is only discussed as a regulator and/or legislator. As discussed above, the government does have some legislations dealing with access to electronic communications, but the enforcement and monitoring mechanism are not effective. What is required of government is to engage in public education campaigns around the different Acts relating to electronic communications.

In addition to enforcement and monitoring mechanism, government needs to establish a code of good practice dealing with access to electronic communications at the workplace. This will not only bolster the current legislations, but will further clarify their applications, and ensure accessibility on the part of employers and employees. Employers may then be required to incorporate the spirit of the codes into their internal ICT policies.

THE PREFERRED THEORY IN THE CONTEXT OF ELECTRONIC COMMUNICATIONS

Having analyzed all the key theories, and showed how they could apply in specific situations, the question remaining is, which theory is preferred here. The three major ethical theories discussed, namely deontology, consequentialism and virtue theory all remain relevant and important for assessing the ethical correctness of accessing electronic information. However, deontology, despite its shortcomings, makes a good account for why accessing private electronic information will be wrong. It can better explain why certain principles, in our case, human dignity and privacy, should not be violated. Equally, virtue theory, in the context of employment relations, also gives a good account of what type of employers or employees we need. Because employment relations is virtue-based (character-based), virtue can also give an equally good account as to why accessing

private electronic information will not be morally correct, as this behaviour is not what is expected of a good employer. For this reason, both deontology and virtue theory, in combination, are preferred as analytical tools for assessing the correctness of employer actions, or character. These theories have been, and ought to be, used in conjunction with the legal and constitutional theory discussed.

CONCLUSION

The protection of electronic information remains a thorny issue, more especially at the workplace. The paper has tried to show how this is the case, associated problems as well as recommendations. The paper has principally been about ethical theory and employment relations, within the context of protection of electronic information. The ethical theory was not used in isolation, but in combination with legal theory. Various theories were therefore used to analyze the problem of accessing electronic information, in an interdisciplinary approach.

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CALCULATIONS & AFFORDABILITY OF MUNICIPAL TARIFFS ADJUSTED TO POOR COMMUNITIES INCLUDING SOCIAL ASPECTS – THE CASE OF ELIAS MOTSOLEDI LOCAL MUNICIPALITY

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ABSTRACT

Communities in South Africa and other developing countries suffer from non-payment for service rendered by municipalities. This study investigates the calculations of municipal tariffs adjusted to poor communities including social aspects – and possible reasons for non-payment. These social aspects include the affordability of municipal services to the community and the importance of user charges to municipalities. Using the case of Elias Motsoaledi Local Municipality, data are collected 1. directly from the municipality and 2. from questioning the households using a randomised stratified sampling. This allows for identifying myths and facts on non-payment culture and the impact the tariff levied has on households. A multidimensional approach is necessary to deal with this problem.

INTRODUCTION

This paper endeavors to investigate the calculations of municipal tariffs adjusted to poor communities including social aspects – and possible reasons for non-payment. These social aspects include the affordability of municipal services to the community and the importance of user charges to municipalities. Therefore the study investigates in a first step whether poor communities can afford the tariffs levied by municipalities on municipal services – and as well the calculation method utilised so far amongst communities of the Elias Motsoaledi Local Municipality (EMLC). In a second step a survey examines the other side of tariffs by questioning the population. Confronting both allows establishing an understanding how crucial the revenue collected from user charges is to the financial sustainability of services by poor municipalities and allows for

- developing a tariff system that helps to sustain services and takes also into account social aspects, and
- recommending accompanying measures to ensure better financial cover of municipal services.

Therefore, a distinction between free basic services, prepaid services and billed services is made.

THE “CULTURE” OF NON-PAYMENT IN SOUTH AFRICA AND OTHER DEVELOPING COUNTRIES, AND POSSIBLE REASONS

The reluctance of paying for municipal services in South Africa was the brainchild of political activists opposing the apartheid regime in South Africa, at the time. They were of the opinion that township dwellers should not pay for services rendered by municipalities in support of the legacy of the anti-apartheid payment boycotts of the 1980s (cp. McDonald, 2002). This culture may still exist today, even though the country had its first democratic elections in 1994.

Due to a possible “culture” of non-payment, municipalities have to manage losses and non-payment of accounts as part of its everyday operations. Previously, the reluctance of paying for services was aggravated by the poor

quality of supply during the apartheid era (CoJ, 2008). However, Fjeldstad (2003) identified three dimensions of trust which “may affect citizens’ compliance: (1) trust in the local government to use revenues to provide expected services ; (2) trust in the authorities to establish fair procedures for revenue collection and distribution of services; and (3) trust in other citizens to pay their share.” Local municipalities are seeking to reduce the backlogs in the provision of basic services such as water, sanitation, electricity and roads to ensure that poor households in the previously disadvantaged areas experience an improved quality of life (McDonald, 2002). The poor quality of services disadvantaged many communities during the 1980s, and it is still prevalent today. Sydney Mufhamadi (Mufhamadi, 2004), Minister of Local Government in 2004, was of the opinion that people will be reluctant when it comes to paying for their services due to poor services delivered in the past, which Local Government in South Africa wants to improve on.

Nevertheless, the challenge of collecting user charges also exists in other developing countries, such as India, Mexico and Malaysia. According to the Ministry of Finance of Malaysia the high write-off on user charges is as a result of non-payment due to poor service delivery (United States, 2008). Unsatisfactory deliverance of services by municipalities builds reluctance towards paying for services. Constant criticisms over delays highlighted the urgency of improving the local government delivery system (COJ, 2008). Also in almost every urban centre in Mexico and India, irrespective of size or class, the availability even of basic services has declined, and considerable populations in these settlements have no access to most of the services and amenities (Mukesh, 2005; United States, 2008).

Comparing South Africans to Indians and Malaysians, the difference in the communities’ behaviour towards paying for services is displayed, since South Africa’s Constitution states that all citizens have a right and access to basic services (IDEA, 2007). However, even though South Africans have this privilege, due to the possible existence of a culture of non-payment, citizens are ignorant regardless of the awareness projects run by municipalities for their services (United States, 2008) and regardless that municipal rates in spite of general prices increase have remained stable (COJ, 2008). This can even lead to a lethal spiral: non-compliance on paying for services received by communities impedes the municipalities in proper service delivery, since its operations may not be executed due to a lack of revenue from user charges, and when the government takes action, government leaders and their leadership qualities are questioned and compared to pre-1994 leaders (McDonald, 2005). In support to the above statement Lubbe & Rossouw (2005a) mentioned that South African leaders have diverted from the old fashioned boycotts insisting that communities refuse to pay for their services into leaders who actually appeal to people to pay for their services.

In the end, there are several possible problems which can lead to a culture of non-payment which can be summarized as:

- High backlog on service delivery as well as a high rate of unemployment (McDonald, 2002).
- Sacrificing essential services for the sake of food, or preferring even a luxury life style (wearing brand name clothing and going to fancy restaurants) instead of paying for services (McDonald, 2005; SABC 1, 2005).
- The accounting system might create certain irreconcilable challenges on the households’ account statements that lead to inconsistency in charging households (Lubbe & Rossouw, 2005b).
- Cross-subsidisation of charges by the most developed urban areas may have a positive impact on the cost recovery of rendered services (HRSC, 2004).

Regarding these problems, this study also tracks households’ opinions and concerns about their municipality, as well as acquires more current view of households’ justifications on non payment of municipal services.

CURRENT SITUATION OF POOR COMMUNITIES – THE CASE OF ELIAS MOTSOLEDI LOCAL MUNICIPALITY

Since its nature is typical for poor South African communities, EMLC is used as a sample: it is situated in a primarily rural area with a high unemployment rate, resulting in high poverty levels. EMLC aims at improving service delivery to the communities by achieving their development goals set in their strategic plan. These development goals are aimed at fulfilling the municipality’s vision of a better life for all through service excellence. However, their inability to collect revenue on services rendered may prevent potential investment in the municipality and hamper municipal projects that will create jobs for the unemployed members of the community. Previously, household in the villages of Moutse, which forms part of the larger municipal area, paid

a flat rate of R10 per annum, and currently they are utilising billable services. The households also have at least a restricted access to free basic services such as electricity, water, refuse, and sewage. Furthermore, the municipality of Elias Motsoaledi called on all poor households to have their outstanding debts *written off to zero* when prepaid meters were introduced, together with the introduction of free basic services. This process was implemented to encourage poor households to commence paying for services rendered by the municipality. However, only few honoured the agreement, and not all households supported the prepaid meter system and still preferred the billed meter services (EMLM, 2008/2009). As a result, taking all the efforts of the municipality and the reactions of the households which even had the chance to restart at zero into account, EMLC may be a perfect example of whether people are reluctant to pay for, or cannot afford to pay for municipal services. Using the gathered information, a positive contribution towards the re-structuring of tariff policy in order to benefit poor communities can be made. This does not only benefit the municipality of Elias Motsoaledi Local Municipality but also similar ones in other parts of the country.

RESEARCH METHODOLOGY

The goal of the study is to investigate the reasons on non-payment due to the tariffs levied on services and to find an appropriate tariff structure which includes social aspects. To do so, information from different sources are investigated and analysed: 1. data directly obtained from EMLC and 2. from a survey.

From EMLC data is collected to retrieve information how revenues from tariffs cover municipality's spending for services, the share of unpaid services in relation to the different residential areas, their estimation of non-compliance and possible consequences on the financial budget and sustainability.

A randomised stratified sampling of 650 from a population size of 220,748 using the house register is used to get a representative image of the population of EMLC community members as part of the data analysis. These questions comprise amongst others their employment status, level of salary received, access to basic services, the affordability of major services, their compliance, and reasons in case of non-payment. This shall allow identifying myths and facts on non-payment of rendered services by municipalities as well as the impact the tariff levied has on households.

This sampling divides the community at first into strata in the different residential areas because of distinct social structure of population and different service structure between the suburbs. Then, in proportion to the population in each residential area, randomised samples are questioned. To gather confidential answers and to deal with ethical issues, a form is designed that guarantees participant's anonymity; to address the issue of non-participant households in the survey, households were repeatedly visited in case of absence, and incentives for participation were paid.

Using the above data sources allows

- to identify the main determinants of service paying compliances and their impact on municipality's financial budget – and, based on this information,
- to derive an appropriate tariff structure as a framework which considers financial sustainability of services, its impact on the budget, and social aspects, as well as
- to develop accompanying measures to deal with reasons and a possible culture of non-payment.

FIRST RESULTS

So far, the two poorest residential areas have been evaluated. 150 household have been questioned – with 147 responding which is a response rate of 98%. As expected, analysis of these answers shows that a big part (5 out of 10) of the residents of these poor areas does not comply with the tariff system because they cannot afford to pay for the services rendered by the municipality due to the fact of low income and unemployment. Also, an enormous amount of non-compliance is related to misinterpretation of “free basic services”: some, especially of the elderly illiterate members of the Elias Motsoaledi Local Municipality think that the word “FREE” means that they need no longer worry about paying.

However, according to the answers obtained from the survey, protest was a very important reason for non-payment of services rendered by the municipality as well:

- 6 out of 10 say that the ruling party, the African National Congress (ANC), is always promising a lifeline amount of free services during their municipal elections. Hence, they will detain paying till government fulfills its promises.
- 7 out of 10 feel that the government officials whom they have elected are just using their position and

power to live a luxurious life while the community is suffering. Most of them even suggest that government officials have to sacrifice parts of their salaries to subsidise services for the poor. Lastly, non-payment also results from a lack of accurate information at the billing department and of a lack of law-enforcement: there is no adequate information on who actually receives services, and some people refuse to accept the law of contract. Since the criminal justice system has partially collapsed (especially in these poor areas), this makes it extremely difficult for the legal enforcement of court decisions on household evictions to be enacted.

DISCUSSION AND RECOMMENDATION

Poorness is one important explanation, but even in the poorest parts of EMLC, this is not the only reason for non-payment for services rendered by municipality. This means that, in fact, tariffs have to be adjusted not only to municipal financial needs but also according to social aspects regarding structure of the population. This may include that subsidies from richer municipalities/communities were necessary for (financial) sustainability of services in poor residential areas. An approach addressing these aspects will be outlined in the presentation. However, since for a big part of the population, reasons for non-payment are also of other nature, this cannot be the only measure. Instead, a multidimensional approach has to be taken into cognisance. This means, adjusting the tariff structure has to be accompanied by other methods as well: to deal with non-compliance, on the one hand, EMLC has

- to improve services and
- to educate people (especially illiterate elderly households with regard to free basic, prepaid and billable services),

but on the other hand, it also has

- to install an adequate accounting system for gathering service delivery and payment information,
- to provide more prepaid installations to make it more difficult to get services over the free basic without payment, and
- to work on a monitoring system and law-enforcement to (re-)establish a culture of compliance and social responsible behaviour.

CONCLUSION

This study tried to find possible reasons for non-payment for services rendered by poor municipalities and to develop a tariff system that takes into account the financial needs of the municipality and social aspects. However, investigation of data collected 1. directly from Elias Motsoaledi Local Municipality and 2. from questioning the households using a randomised stratified sampling shows that a multidimensional approach is necessary: while two main reasons for non-payment actually result from poorness and low education, there exist many other reasons for non-compliance as well, such as protest against the government and its officials, inadequate accounting information, partial collapse of criminal justice system especially in poor areas. This means that adjusting tariff structure must be accompanied by other measures as education on the nature of services; by the introduction of an adequate service accounting system; by other ways of service delivery and by more law-enforcement re-establish a culture of compliance and social responsible behavior.

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EFFICACY OF SEXUAL HARASSMENT LEGISLATION IN THE SOUTH AFRICAN PUBLIC SERVICE

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ABSTRACT

The challenges sexual harassment pose are not unique to the public service in South Africa. Legal systems the world over, and in all their diversity, have one thing in common – they all struggle to define the concept “sexual harassment” and to decide what test should be applied to determine if sexual harassment had occurred. It is, therefore, assumed that the problem persists in almost all jurisdictions, local and international. Although many jurisdictions have codes, policies and legislation in place to combat sexual harassment, these are relatively ineffective. The threat of employers facing vicarious liability charges, poses a particular challenge to management hence the need for top management to deal with sexual harassment as a priority issue. This proposed paper will thus, through the use of qualitative methods, probe the efficacy, or lack thereof, of policies and regulatory and legislative frameworks, with particular reference to the public service; identify the nature and scope of the problem supported by case law and search for possible solutions towards effective management or the eradication of sexual harassment.

INTRODUCTION

Sexual harassment is one of the vices that society in general often does not talk openly about. The silence around sexual harassment make it to flourish at the expense of individual victims emotions and overall organizational effectiveness and productivity. The South African government and the public service have in the past ten years been in the media due to sexual harassment cases involving senior officials. This paper represents an attempt to assess the efficacy of sexual harassment policies in South Africa. The paper focuses on the definition and nature sexual harassment, policy framework, challenges, and possible solutions before concluding remarks are offered.

DEFINITION OF SEXUAL HARASSMENT

As a prelude to the exploration of the nature and extent of sexual harassment, it is necessary to define sexual harassment. The phenomenon sexual harassment consists of two interrelated concepts which can be used separately or together depending on the intended meaning. Sexual refers to or relates to sex. The *Collins English Dictionary* defines harassment as to trouble, torment by continual persistent attacks. Harassment in this context would therefore refer to any form of attack. In terms of section 1 of the *Promotion of Equality and Prevention of Unfair Discrimination Act, 2000*, harassment means unwanted conduct which is persistent or serious and demeans, humiliates or creates hostile or intimidating environment or is calculated to induce submission by actual or adverse consequences and which is related to, amongst others, sex, gender or sexual orientation. The definition of harassment provided by the Act above broadens the term to include sexual harassment.

The combined use of the two words denotes an action which this paper explores. Sexual harassment refers to the persistent unwelcome directing of sexual remarks, looks, and unnecessary physical contact at a person (*Collins English Dictionary*). Paludi (2000) describes sexual harassment as behavior that is unwanted or unwelcome, makes an employee uncomfortable, offended and prevents effective working. It occurs once and may be repeated. Sexual harassment is part of a more general misogyny. White and Noe in Mello (2002) define sexual harassment as unwelcome sexual conduct that must be tolerated as condition of employment or basis for employment

decisions, that unreasonably interferes with the employee performance, or that creates a hostile working environment.

The inclusion of sexual orientation in the definition of sexual harassment can be broadened to include the intersexed people. Intersexed people have previously been referred to as hermaphrodites. Reference to the intersexed people as hermaphrodites is derogatory and demeaning. The word hermaphrodite is suitable for use when reference is made to animals and plants. Intersexuality is an umbrella term that covers a set of different physical conditions that result in ambiguous genitalia (Golden, 2000).

A public official who is a victim of sexual harassment has the right to lodge a grievance with the employer. The total number of grievances handled by the Public Service Commission has increased from 392 in 2005 to 431 in 2006 (9.9% increase). This increase is attributed to the new grievance rules which contain stringent time frames that departments must adhere to. In terms of the grievance rules departments have 30 days to deal with a grievance (This time frame may be extended with the consent of the aggrieved). If the grievance is not resolved to the satisfaction of the aggrieved employees, they may request that it be referred to the Public Service Commission. Performance assessments accounts for 52% of grievances, filling of posts 10%, claims 8%, and 6% relates to unfair treatment (Public Service Commission, 2006).

Currently, sexual harassment is not captured by the Public Service Commission or the Department of Public Service and Administration as a separate grievance. It may be classified as an unfair treatment. This classification further justifies the view that sexual harassment is not accorded the attention it deserves by both academics and practitioners. The implication of this classification are twofold. Firstly, the extent of sexual harassment will remain a mystery as long as the current classification remains intact. Secondly, if the number of people who are victims of sexual harassment is not known, the gravity and urgency of the problem will not be easily established. Consequently, victims will continue to suffer and be viewed with contempt.

International trends suggest that sexual harassment is a pathology worth attention and adaptation of policies within both the public and private sector. It is estimated that 15 000 sexual harassment cases are brought to the United States of America's (US) Equal Employment Opportunity Commission every year. Between 40% and 60% of people who lodged sexual harassment complaints are women. In Europe, between 40% and 50% women have experienced sexual harassment. In the US 15% of the Equal Employment Opportunity Commission complaints were filed by males with 11% of claims involving female supervisors. In the United Kingdom, 8% of all sexual harassment complaints come from men (Sexual harassment, available at: http://en.wikipedia.org/wiki/sexual_harassment. 01/06/2007).

Internationally, the classification of sexual harassment victims into males and females without specific reference to homosexuals is an indication that the international community still turns a blind eye on the plight of gays, lesbians and the intersexed. To give homosexuals a fair deal, the classification of victims of sexual harassment has to change to reflect the complexity and the problem.

POLICY FRAMEWORK

Policy refers to a document which states objectives aimed at rectifying a specific dysfunctional situation. Sexual harassment is an anomaly which justifies actions by managers in the public service. Policy documents that address the pathology of sexual harassment include, amongst others, *Constitution of the Republic of South Africa, 1996*, *Promotion of Equality and Prevention of Unfair Discrimination Act, 2000*, *Public Service Regulations, 2001*, and departmental policies.

Constitution of the Republic of South Africa, 1996

Section 195 of the *Constitution of the Republic of South Africa, 1996* outlines key values and principles which must be adhered to by public officials and the public service. Amongst others, the *Constitution of the Republic of South Africa, 1996* provides that public administration should be characterised by a high standard of professional ethics, efficiency, economy, and effective use of resources management and the maximisation of human potential.

The Constitution is the supreme law of the country. Sexual harassment is not in line with the provisions of the Constitution hence stern action is necessary. Sexual harassment is an action which undermines the provisions of the Constitution relating to high standards of professionalism, effectiveness and efficiency.

Promotion of Equality and Prevention of Unfair Discrimination Act, 2000

Promotion of Equality and Prevention of Unfair Discrimination Act, 2000 gives effect to section 9 as well as item 23(1) of schedule 6 to the *Constitution of the Republic of South Africa, 1996*. It aims to prevent and prohibit unfair discrimination and harassment. Section 20 of the *Promotion of Equality and Prevention of Unfair Discrimination Act, 2000* allows an individual as well as independent institutions such as the South African Human Rights Commission and the Commission for Gender Equality to act on behalf of victims of sexual harassment. The Act establishes Equality Court which has the power to:

- Order the payment of any damages in respect of any proven financial loss, loss of dignity, pain, suffering which includes emotional and psychological suffering as a result of [sexual] harassment,
- Issue an order restraining harassment,
- Issue an order for the implementation of special measures to address harassment, and
- Order a respondent, in the case of a public institution, to undergo an audit of specific policies or practices.

The Public Service Regulations, 2001

Public Service Regulations are promulgated by the Minister of Public Service and Administration to regulate human resources practices in the public service. The Public Service Regulations, 2001 as amended by government notice No. R.1249 of 30 December 2005 (C.3) regulates the relationship among employees. Section C.3.3, C.3.5 and C.3.6 stipulates that employees should, amongst others, refrain from abusing authority, be committed to sound personal relations and deal fairly, professionally with other employees irrespective of gender and sexual orientation. Furthermore, section C.5.1 prescribes that an employee must behave in a manner that enhances the reputation of the public service during official duties. The capacity to promote and maintain a high standard of ethics in accordance with Public Service Regulations is central to sustaining a credible public service and safeguarding both its integrity and efficacy.

Departmental policies

Office of the Public Service Commission's policy on Gender Equality and Sexual Harassment provides a comprehensive definition of sexual harassment which describes actions which constitute sexual harassment. The policy further excludes occasional compliments acceptable to the recipient, and mutual attraction between two persons from the definition of sexual harassment. The Department of Public Service and Administration's Integrated Employee Health and Wellness Policy (section 13) deals with managing harassment. It outlaws harassment. These policies are confined to the Office of the Public Service Commission and the Department of Public Service and Administration. The use of different policies by the two central institutions in the public service suggests that every department can formulate its own policy on sexual harassment. This state of affairs will lead to inconsistencies regarding policies and their implementation.

Labour Relations Act, 1995

In South Africa sexual harassment is identified as an unfair labour practice in terms of the Labour Relations Act, 1995 (Act No. 66 of 1995). Prior to the promulgation of this Act, sexual harassment cases had not been dealt with by the courts as these matters fell outside their jurisdiction, and were treated as employment relationship matters.

It was only in 1989 that a case of sexual harassment was for the first time adjudicated by the court and it was also the first to be reported in South Africa (*J v M Ltd (1989) 10 ILJ 755 (IC)*). The case was heard by the Industrial Court in February, 1989, and at 757I – 758A the court made the ruling that “sexual harassment,

depending on the form it takes, will violate that right to integrity of the body and personality which belongs to every person and which is protected in our legal system both criminally and civilly. An employer undoubtedly has a duty to ensure that its employees are not subjected to this form of violation within the workplace. Victims of harassment find it embarrassing and humiliating. It creates an intimidating, hostile and offensive work environment". The problem, particularly in South Africa, seems to be that sexual harassment is perceived as an offence committed by men against women and not women against men. Cooper (2002) states that in South Africa, as elsewhere, management structures are dominated by men. According to him a range of studies have shown that as a group, men are less willing than women to identify sexual behaviour in the workplace as sexual harassment, and to view it as a serious issue. This has also been confirmed in an unpublished paper by Sutherland (1992) as quoted by Cooper (Cooper, 2002).

CHALLENGES

There can be no doubt that for the victims of sexual harassment, the events and the processes that follow upon the disclosure of their harassment, may be extremely painful and embarrassing (IRNetworks Publications on <http://www.irnetwork.co.za>). It is also a fact that unpleasant acts and words will have to be revisited in the course of a disciplinary enquiry, for instance, which will probably be followed by another re-run for the purpose of the arbitration. The unfortunate fact is that the onus may well be on the harassment victim (or the alleged victim) to prove that sexual harassment had actually taken place.

Victims are often blamed for the sexual harassment that had occurred, and they often find it difficult to describe the experience. Furthermore, the people who work with the victim may have difficulty understanding and accepting that harassment is occurring, and their negative reactions is likely to increase the victim's confusion and isolation. Most often, when sexual harassment victims speak out about what they are experiencing, they are the ones considered to be the problem, not the harasser. For these reasons, and the fear that harassment can incite, most victims never report what they have experienced. In most cases, they do not even talk about it to friends and family. Consequently, as research has shown, when there is denial, disbelief or placement of blame on the victim, recovery is much more difficult. (<http://www.sexualharassmentsupport.org>)

The following factors have been identified as contributing in some significant way towards the failure by victims to report the harassment (<http://www.sexualharassmentsupport.org>):

“Confusion – The victim does not know how to describe what has been happening to her/him
Embarrassment – the victim experiences a feeling of embarrassment by what had happened;
Victim-blaming – Others may blame the victim and in some way the victim becomes the accused;
Guilt – Self-blaming and perception that victim has somehow contributed to the harassment;
Shame – Feeling ashamed of what has been happening and reluctance to make it public;
Denial – Disbelief that this is real;
Minimising – Trivialising it and telling oneself ‘it’s not such a big deal’;
Fear – Victim afraid of retaliation by the harasser or the harasser’s colleagues;
Adaptation – Abuse had been going on for a long time and the victim feels nothing can be done about it;
Numbing – Victim wants to distance her/himself emotionally from the experience and avoid people and places that would serve as reminder for what happened;
Triggers – Feeling that talking about it may bring more pain and cause more anxiety;
Invalidation – Feeling that no one would believe the accusations;
Defamation – People may question the motive for reporting which may attract unnecessary attacks on the victim;
Same-sex harassment – If the harasser is of the same sex, people may question accuser’s sexual orientation; and
Masculinity – a male victim may be afraid that it is a reflection on his masculinity for him not to enjoy the sexual attention or afraid that others may question sexual orientation.”

Grobler *et al* (2006) report that “a national study undertaken in the USA of over 13 000 workers found that 42% of the women and 14% of the men had experienced some form of sexual harassment in a three-year period. The

study also found that only 5% of the men and women who had experienced harassment chose to report it. The primary reasons why the other 95% did not report their harassment include the following:

- The fear of losing one's job;
- The need for a future job reference;
- The possibility of being considered a troublemaker;
- The assumption that nothing would change if the harassment was reported;
- Concern about being accused of inviting the harassment;
- A reluctance to draw public attention to private lives; and
- The prospect of emotional stress for filing a lawsuit and undergoing long, costly legal procedures”.

RECOMMENDATIONS

The following are suggested strategies that most women have found to be effective in terms of countering sexual harassment (<http://www.uoregon.edu/~counsel/harass.htm>):

- “ - Say no to the harasser;
 - Write a letter to the harasser. Describe the incident and how it makes you feel. State that you would like the harassment to stop.
Send the letter by registered mail and keep a copy. (It is submitted, however, that this may not be as effective as would be the case if the matter was directly communicated to the harasser verbally, or the letter sent directly to the harasser by hand before it is posted if the victim and perpetrator work in the same organisation and/or office.)
 - Keep a record of what happened and when. Include dates, times, places, names of persons involved and witnesses, and who said what.
 - Tell someone; don't keep it to yourself.
 - Find out who is responsible for dealing with sexual harassment in your organisation and whether you can talk in confidence to that person.
 - If you are a union member, speak to your union representative.

The foregoing recommendations relates only to actions that the individual employee has to take. Government and the public Service as employer also has to take steps to safeguard the wellbeing of all employees. It is therefore recommended that the following actions be taken:

- Eradication of ambiguity in policies and legislation regarding sexual harassment,
- Criminalise sexual harassment where it can be proven beyond reasonable doubt,
- Sexual harassment be part of induction and training of existing and new personnel in the South African public service.

CONCLUSION

The South African legislation has only recently begun to deal with the issue of sexual harassment. There are still grey areas regarding the definition of sexual harassment. Victims are still scared to talk about sexual harassment due perceptions. More attention is still needed on legislative reform to protect victims effectively as this is not the case currently. The protection of victims should also take into consideration possibilities that people may be wrongly accused and punished. An atmosphere should also be created in which people can talk openly about sexual harassment. This can be achieved through effective training to dispel myths about sexual harassment victims and their motives.

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WHAT CHALLENGES ARE EXPERIENCED BY MATHEMATICS AND SCIENCE EDUCATORS WHEN USING INFORMATION AND COMMUNICATION TECHNOLOGY IN THE CLASSROOM?

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ABSTRACT

The main aim of this inquiry was to investigate, explore and identify the challenges that have impact on mathematics and science educators when using Information and Communication Technology (ICT) resources in teaching and learning. The study was conducted in the Gauteng province of South Africa. Participants were 58 mathematics and science educators, that is, 37 (63.8%) female and 21 males (36.2%) from 35 schools .sampled within 15 districts of the Gauteng Department of Education. This study followed a quantitative method hence a common questionnaire was administered to collect data that elicited mainly professional development of educator; pedagogical principles and methodologies that underlie the use of ICT; whether there should be a shift in pedagogies, and redesign of the curriculum and assessment in mathematics and science.

INTRODUCTION

The world rapidly changes and technical potentiality is constantly growing (Forcier, 1996). Although the digital revolution is making life easier for people in both directions work and leisure time. Therefore, a question if we can support an idea that Virtual Reality (VR) or modern Information and Communication Technology (ICT) helps with the educational process is not explicit? Recently, the issues of ICT have been exhaustively discussed. The questions are debated at scientific, technical, political, managerial etc level. Certainly, the present technologies have many possibilities (Educating the 21st Century citizens, white paper, 2003). However, ‘transferring’ them to the educational system seems to be the most difficult problem, specifically in Mathematics and Sciences education in South Africa. What are the solutions to be reached in order to effectively apply the technologies for teaching and learning purposes, to decrease a possible negative impact on transferring knowledge? In 1998 the South African Department of Education (DoE) introduced the strategic plan on e-Learning in public schools, documented in White Paper 7 on e-Education (DoE, 2004). One of its main objectives was that: “Every South African learner in the general and further education and training bands will be ICT capable (that is, use ICTs confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community) by 2013” (p. 17). It is against this backdrop that the present study was carried out. In this study the researcher investigated the usage of ICT by mathematics and science educators in their classrooms.

METHOD

Participants

Participants were 58 mathematics and science teachers from 35 schools in the Gauteng province of South Africa. The participants were teaching Grade 7 to Grade 12 mathematics and science classes in their schools. There were 37 (63.8 %) females and 21 males (36.2%) with ages ranging from 24 years to 59 years ($M = 40.3$; $SD = 9.7$). In terms of teaching experience, this ranged between 1 year and 36 years ($M = 12.2$; $SD = 9.4$). About 44 (75.9%)

had been teaching for 5 years or more with 9 (15.5%) indicating that their numbers of learners were more than 50 in the classroom.

Instruments and Procedures

Here the participants had to respond to a number of questions using a questionnaire that was developed by the researcher that included some SITES, 2006 questions. First, they were asked to indicate whether they used computers in the teaching and learning activities in their mathematics and science classrooms. Secondly, the educators were asked whether they incorporated ICT related tools during teaching. Thirdly, on a 12 item *Conducted Activities Scale*, educators were requested to indicate how often they conducted different activities during teaching and whether they utilised ICT to do this. For instance the educators were asked “How often do you provide remedial or enrichment instruction to individual learners and/or small groups of learners?” Here they also had to indicate whether they used ICT or not to conduct this activity. Fourthly, educators were given different assessment methods and they were asked to indicate the instances where they used ICT. In determining the results of this scale, issues of reliability and validity were initially addressed. The reliability of the *Conducted Activities Scale* was determined by computing the internal consistency of scores obtained from this instrument (Cronbach, 1951). The computed alpha value was found to be $\alpha = .76$ (95%CI = .66 to .84), which is regarded as a fair (Cicchetti 1994). Face validity of the questionnaire was assured by asking two senior academics to determine whether this instrument was about what they were told it was asking for. The academics independently indicated that they were happy that the questionnaire seemed to be doing what they were told it was intended to do.

RESULTS

This section therefore describes the research findings of this study. To do this, firstly responses to how educators integrated ICT in the teaching and learning of mathematics and science are described. The findings indicated that of the total number of participants 50 (86.2%) did not use computers. Furthermore, the results indicated that most teachers did not utilise ICT tools. There were 37 (63.8%) who indicated that they *never* incorporated equipment in teaching their classes and only 3 (5.2%) said they did this *nearly always*. In spite of educators conducting different activities ICT was not utilised. For example in Question 2 (see Table1) where educators were asked, “How often do you provide remedial or enrichment instruction to individual learners and/or small groups of learners”? Of the total educators 36 (75.0%) indicated that while they provided remedial instruction to individual learners they however did not utilise ICT to do this.

Table 1: Percentage distribution of educators with respect to the provision of remedial instruction to individual learners

Item			N (%)	
			No	Yes
2	Provide remedial or enrichment instruction to individual learners and/or small groups of learners	Never	1 (2.1)	0 (0)
		Sometimes	12 (25.0)	2 (4.2)
		Often	16 (33.3)	3 (6.2)
		Nearly always	8 (16.7)	6 (12.5)

Secondly educators’ views on the integration of ICT in learner activities were inquired. From questions that were asked on the impact of ICT in teaching and learning, it was observable that educators who used computers for teaching and learning, their subject matter mastery, self-esteem and self-confidence increased. It is worth noting from the Table 2 that the example also illustrates that between 31% and 42% of the educators indicated that they did not use ICT for teaching and learning.

Table 2: Teachers’ indications of how the use of ICT has impacted on teaching and learning in their classroom

Item		1	2	3	4
		N (%)			
1.	Subject matter knowledge mastery	2 (4.1)	19 (38.8)	13 (26.5)	15 (30.6)
10.	Self esteem		8 (17.8)	18 (40.0)	19 (42.2)

24	Self-confidence	5 (11.1)	24 (53.3)	16 (35.6)
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Note: 1 = Decreased; 2 = Made no difference; 3 = Increased; 4 = I do not use ICT

Thirdly educators were asked to indicate their confidence in using ICT together with its educational benefits. In respect of confidence in using ICT, educators were firstly requested to indicate whether they had access to a computer at home. This group of teachers was secondly asked to indicate what they used their computers for. Thirdly, the educators were requested through the *General and Pedagogical Usage Questionnaire* to indicate the extent to which they were confident in accomplishing issues related to the general and pedagogical usage of ICT. For this particular questionnaire, on inspection of the different items the researcher concurred with the developers of the Secondary Information Technology in Education 2006 Study (IEA – SITES, 2006). The concurrence was on the fact that the questionnaire was made up of two subscales, *General usage of ICT* and *Pedagogical usage of ICT*. In order to verify this hypothesis content validity was established through computing principal components analysis. The researchers felt this was consistent with the contention that content validity is based on the extent to which a measurement reflects the specific intended domain of content (Carmines & Zeller, 1991). Table 3 shows the varimax rotated structure coefficients from principal component analysis of the questionnaire. The table includes eigenvalues, coefficients alpha values of the two subscales and the proportion of variance explained for each factor. Inspection of the factors indicated that the first factor included structure coefficients consistent with eight items representing *Pedagogical usage of ICT*. Item 1 for example, “I can use ICT for monitoring learners”. In terms of reliability, the internal consistency of scores obtained from this questionnaire assessed as Cronbach’s (1951) coefficient alpha was .93 (95%CI = .90 to .98). This alpha value was excellent based on the guidelines for clinical significance that it is fair if $.70 \leq \alpha < .80$; good if $.80 \leq \alpha < .90$ while $\alpha \geq .90$ is excellent (Cicchetti 1994). Similarly with respect to the two subscales, acceptably good alpha values of .89 (General usage of ICT) and .95 (Pedagogical usage of ICT) were computed. These computations indicate that the scores obtained from the questionnaire were consistent and reliable.

Table 3: Structure coefficients from principal component analysis of the general usage and pedagogical usage of ICT Scale (N = 58)

ITEMS	FACTOR	
	1	2
Eigenvalues	8.5	2.7
Variance (%)	53.3	16.7
α	.95	.89

Only 18 (31.0%) indicated that they had computers at home. A pleasing aspect of this group of teachers was the fact that all age groups in terms of young and old teachers had access to a computer at home. In fact in the age range of 25 – 29 four teachers had computer access while 14 were 30 years or more. Similarly, the results of the *Pedagogical usage of ICT* subscale revealed that teachers were not confident in using computers for teaching purposes. It was also observed that 17 (29.3%) teachers indicated that they were confident of preparing lessons for learners. However, it was worth pointing out that educators who responded on a questionnaire that elicited on their thought of ICT benefits for their learners were only 13.8% of the total sample. The findings revealed that while the educators had indicated that they used ICT in the teaching and learning process, they however did not seem to derive any benefits from this. Because educators had different views on this, some educators identified the use of ICT to have benefited the learners while others felt this was not the case (See figure 1).

Finally an exposition of the need for professional development as well as how the influence educators have in schools adopting the use of ICT are elaborated on. To determine educators’ professional development needs, the *Professional development Questionnaire* was administered. Here the educators were asked to indicate their preference in respect of whether they had attended, not attended or wished to attend relevant ICT courses. Initially the results report the reliability and validity of the scores obtained from this questionnaire. This is followed by the educators’ views in respect of their preferences. With respect to the *Professional Development Questionnaire*, face validity was assured. This involved giving the questionnaire to two senior academics for them to ascertain whether what they were told the scale was seeking to determine actually did. Both endorsed the questionnaire. Regarding reliability, internal consistency reliability of scores assessed as coefficient alpha for this scale was .86 (95%CI = .74 to .88). Again the alpha score indicates that scores obtained from this particular questionnaire were reliable. Table 4 shows teachers’ indications of whether they wished to attend training on

different aspects of computer usage or not. The findings indicated that most teachers wished to attend training related to specific tutorials for mathematics and science content as well as using multimedia operations in teaching.

Figure 1: Distribution in respect of the impact of ICT on learners in respect of learning motivation

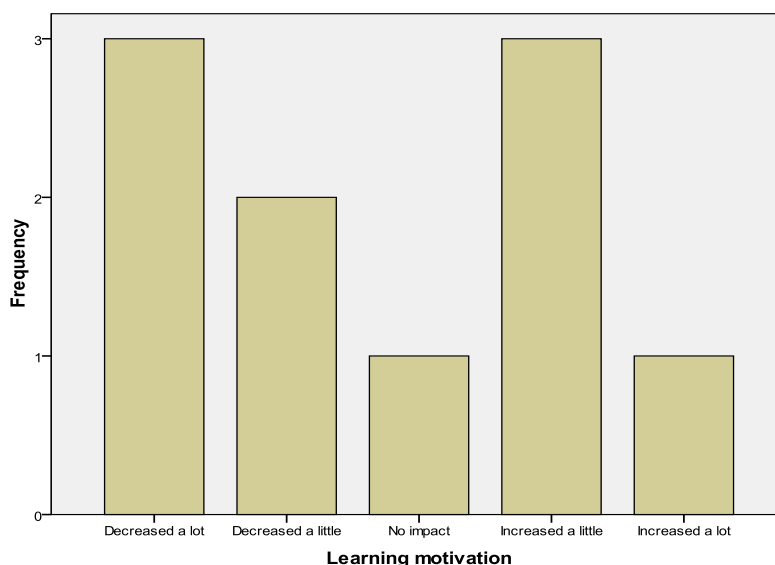


Table 4: Teachers' indications of whether they wished to attend training on computer usage or not

Item	N (%)		Wish to attend
	Attended	Not Attended	
1 Introductory course for internet use, word processing, spreadsheet etc.	21 (41.2)	25 (49.0)	5 (9.8)
2 Advanced course on word processing and data bases	19 (35.8)	27 (50.9)	7 (13.2)
3 Advanced course on internet e.g., creating web pages	17 (32.1)	15 (28.3)	21 (39.6)
4 Course on integrating ICT into teaching and learning	11 (20.4)	11 (20.4)	32 (59.3)
5 Mathematics and science specific training with software for specific content, e.g., tutorials	4 (7.4)	11 (20.4)	39 (72.2)
6 Course on using multimedia operations in teaching, e.g., integrating video and/or audio equipment	6 (11.1)	9 (15.5)	39 (72.2)

It was then observable that the educators felt that they had influence (61.9%), their opinions were considered (67.3%) and they could use their own judgment (68.5%) over different issues at school.

DISCUSSION

Educators' pedagogical practices and the use of ICT lie at the core of this entire study. The key concern driving policy and community interest in the pedagogical integration of ICT is the premise that technology is important for bringing changes to classroom teaching and learning (IEA-SITES, 2006). This is because the use of technology in the classroom fosters the development of learners' skills (IEA-SITES, 2006). Specifically, this includes the ability to become lifelong learners in undertaking collaborative inquiry and to be able to work and learn from experts and peers in a connected global community. In this section, the main aim is to position the findings of this study with what pertains in literature. In this study it has already been alluded to that ICT has great potential for enhancing teaching and learning outcomes (Brady, 1992). In spite of the virtues of ICT it has been shown here that a majority of educators (a) did not possess computers, (b) did not integrate ICT in teaching and learning activities (c) did not encourage their learners to use ICT. These findings notwithstanding, it is worth

pointing out that most of the educators who teach Mathematics and Science had a teaching experience ranging between 5 years and 36 years. A worrying aspect of these findings is how they are contrary to what literature has impressed on regarding ICT. In this regard it has been argued that "... computers help to individualize learning by accommodating learner differences related to prior knowledge, preferences, and learning styles" (Hannafin, Orrill, Kim, & Kim, 2005, p. 6). Also, in an educational context, it is argued that computers may "... be a useful tool for information searches, data analysis and storage, and can help provide an attractive learning environment ... computers are used in schools to produce new things and new views ..." (Fidalgo-Neto et al., 2009, p. 679). A hallmark of computer based teaching and learning is that it is designed to be self - paced. This means that trainees typically control the learning experiences through spending as much time as they need (Ely, Sitzmann, & Falkiewicz, 2009). What is lamentable about the findings here is the fact that the admitted non usage of computers by the participants suggests that all these good virtues of ICT are missed. On the other hand, the national department introduced a web-site (THUTONG, DoE) for content specific related subjects, to be accessed by educators. Seen against the backdrop of non-usage of computers in general in this study it is reasonable to assume that the educators hardly access the website. The importance of this study was premised on the fact that results of learners taking mathematics and science at schools have consistently remained poor. It is against this background that the use of ICT was investigated. It seems that this poor performance will not be alleviated from the perspective of ICT usage.

However, a good aspect of the findings is that the educators indicated that they wished to attend courses that would relate to integrating ICT into teaching and learning. This finding is critical because in South Africa, as in other nations the Department of Education espoused the need to introduce computers in the classroom. To this effect, in 2003 it introduced a strategic plan on e-learning. The department defined e-learning as being about "... connecting learners to other learners, teachers to professional support services and providing platforms for learning. e-Education will connect learners and teachers to better information, ideas and one another via effective combinations of pedagogy and technology" (South African Department of Education, 2003, p. 15). One of the main tenets of the plan was that every South African learner in the general and further education and training bands will have the capability to function within the information and communication technology (ICT) environment by 2013. The plan is for learners to be able to use computers confidently and creatively. Such computer use the department argued would help them develop skills and knowledge they need to achieve personal goals and to be full participants in the global community. This plan the department acknowledged, entailed a number of related issues. For instance, the development of ICT professionals and experts in schools; improvement of infrastructure in schools; promotion of the ICT literacy; co-ordination and collaboration between various ICT-promoting organizations; establishing a culture that welcomes ICT; encouraging creativity and entrepreneurship as well as increasing ICT application in teaching and learning processes (South African Department of Education, 2003).

RECOMMENDATIONS AND CONCLUSION

As a starting point, this study primarily explored the ways in which educators integrated ICT in teaching mathematics and science in their classrooms. This was deemed to be critical because such integration may be used as a means of enhancing, motivating and stimulating learners' understanding in the teaching and learning of these subjects. Based on the findings of this study, there is a variety of approaches that should be explored and examined. In determining the integration of ICT in the Mathematics and Science classrooms, the following are recommended as crucial (i) School contextual factors, (ii) policy and regulatory environment, (iii) ICT in schools – policy, vision and strategy, (iv) management and financing, (v) technology infrastructure and connectivity, (vi) curriculum, pedagogy and content development, (vii) professional development, and (viii) monitoring and evaluation. In this study these components were seen to provide the key foundation and framework in integrating ICT for mathematics and science programmes at schools. A synthesis of data collected from educators in the Gauteng province provided the basis for the development of tools and blueprints to guide policy formulation and programme improvements. Information gained from this study should serve as an advocacy instrument to gain the support of policy-makers and other stakeholders for the appropriate use of resources to support the integration of ICT in education. The following summary provides an overview of this processed information.

School contextual factors

A well-planned and responsive education system provides an appropriate enabling environment for the successful implementation of ICT in education. To make ICT an integral part of the education curriculum master plan and to ensure programme support, the ICT in education policy should share the same vision as other educational policies or initiatives. An ICT in education policy that is driven by a vision which can be translated into action targeted at realistic and manageable goals contributes to successful programme implementation. A holistic approach to ICT in education policy goes beyond a technological dimension. Adequate physical and technological infrastructure are necessary conditions for effective ICT integration. It has been averred that ICT in education policy is one of several key economic strategies to ensure sustained economic development of any country (Hannafin, Orrill, & Kim 2005). It is recommended therefore that there should be a well-developed and coherent policy on ICT in education. Such a policy will facilitate computer literacy which will invariably support and be helpful to the economic sector in the long term.

Policy and legislation

To ensure that national ICT in education policy (such as White paper 7 on e-Learning) is successfully integrated in the schools' ICT policy, it is strongly recommended that school managers especially mathematics and science heads of departments should work closely with other government organizations, especially those in charge of implementing national policies on ICT and telecommunication. For example, e-Learning departments such as Gauteng Department of Education. Although there has been some lessons learned from pilot projects such as Gauteng on-line in Gauteng province, Khanya projects in the eastern cape province and other relevant studies in education that are carried out at different levels of the school system, these should provide the basis for further policy expansion. Furthermore carrying out Strength, Weakness, Opportunity and Threads (SWOT) analysis and applying its findings will assist to optimise the use of ICT resources in schools. Harmonized implementation of ICT in these subjects can be achieved by defining clearly the roles and responsibilities of all school managers and educators including educational specialist (curriculum implementers) involved with integration of ICT in education and also within the Gauteng Department of Education and other relevant educational departments in the implementation of ICT master plans, showing clearly the different components of project activities, including budget allocations, manpower requirements and timetables. Phased implementation of ICT in Mathematics and Science curriculum should ensure that the implementation process is manageable and the development of best practices and lessons learned from other ICT projects is gradual. It should also provide opportunities for evaluations so that the policy can be revised and fine-tuned. Central support from the Gauteng Department of Education should pursue a clear and measurable vision that will help in developing and implementing comprehensive programme for the capacity building of schools in using ICT in these subjects. Most importantly and without reservations, initial filtering of the Internet from undesirable websites is highly necessary in order to prevent their harmful influence on learners who may not be able to discern the veracity and reliability of Science and Mathematics content and related information. More than any software or hardware device, better protection should be ensured by making education on safety issues pertaining to the Internet an integral part of parenting as well as of teaching and learning activities at home and in the school. Therefore to narrow the digital divide amongst schools, ICT in education policy should complement other government initiatives, such as public education on ICT, donation of computers and provision of free Internet access to both learners and educators. Most importantly educators should be provided with computers including simulation and drill software for development and preparation of their lessons. Advocacy and support from policymakers and other Stakeholders should start to look at the following: Linking the objectives of ICT in education policy with national education objectives including mathematics and science curriculum. Support from policymakers and other Gauteng Department of Education stakeholders, including human capacity building, should be more forthcoming. Policymakers and stakeholders should regularly be aware of and be updated on the benefits of ICT to these subjects. This should assist in the improvement of the teaching and learning, pass rates, and bringing interest to learners to study mathematics and science. Therefore, it is noted and recommended that based on the findings of this study and documentation of experiences, advocacy for the acceptance of ICT use in mathematics and science should further be strengthened. The ICT policy should also assist educators to buy-in in the usage of technology and integrate it in these subjects.

Policy, vision and strategy

A clear vision of ICT integration in schools that is shared by all members of the school community will promote effective use of ICT in the classroom. Furthermore an ICT master plan that is formulated according to a school's vision (which emanated from the provincial vision) and its socio-cultural setting will also assure effective integration of ICT. Following this, schools should also support policies to facilitate uptake of ICT. School leaders such as Principals and School Governing Bodies (SGB) should initially adopt strategies that make ICT part of their daily routine or tasks of the educators. Because ICT bridges and strengthens the home-school connection (Renniner & Shumar, 2002) and, if properly harnessed, it will promote parents' activities and involvement in the school. When parents are encouraged to participate in and contribute to change management activities within a school's ICT master plan, then change would be much quicker and acceptable. Therefore in order to promote the use of ICT in mathematics and science curriculum, the Gauteng Department of Education should set guidelines for schools on the integration of ICT in these subjects. This on the other hand, should be done without necessarily imposing rules or regulations to be strictly adhered to without the buy-in of the stakeholders. Hence ICT use in schools will be more likely facilitated if school principals employ strategies that provide educators with a platform and support for the integration of ICT in these subjects' curricula. From the analysis of results it can therefore be noted that appointing an ICT coordinator or heads of ICT department in each school or science department within the school will help to ensure administrative and pedagogical support for educators. This would therefore lead to translating ICT in education policy and laws into a set of school-level regulations and procedures that will provide a clear outline for schools on the use of ICT. As ICT opens opportunities to collaborate with different organizations and people in local and international communities, it is therefore recommended that schools should establish linkages with different communities to help in developing the overall character of learners through proper development of policy that have clearly outlined vision and strategies.

Management and financing of ICT resources

It is also recommended that leadership and management at both schools and departmental structures should have a champion at all levels in the education system that will promote ICT acceptance. This should include ICT heads in mathematics and science as an important component in the development programme for administrators. Such a development programme will support the introduction of innovative use of ICT in schools for example in developing mathematics and science software tutorials. This should also include virtual laboratories and mathematical software instruments. To avoid duplication of work and dilution of funds, there should be coordination of ICT in educational projects and sharing of information on ICT. For example, educators must share electronic tutorial projects and have easy accessibility of software. It is further recommended that managers in the education system must ensure that ICT projects are not only technology-driven but should be managed by a team composed of educators and technologists. Furthermore to ensure the site readiness of all schools, there must be adequate, initial financial investment by government at the national level. This is a situation that government has been successful in managing the 2010 FIFA world cup projects, especially on the basis of ICT infrastructure and resources. Every school is different and each one should be given some autonomy to select ICT resources that are most suitable to the needs of educators and learners. Investments in ICT infrastructure and resources in schools will create an environment that is conducive to learning. The Gauteng Department of Education should be encouraged to establish a standard budget based on school size and existing resources rather than to apply one formula for all schools. Financial and ICT resource support for the implementation of technology in education policy should be mobilized if school-industry partnership will be integral part of such policy. In addition, schools should be able to explore and experience emerging technologies and pedagogies. These latter recommendations should include strategies to ensure sustainability in preparing and disseminating guidelines on how to source funds and empower schools to look for their own funds and to identify expertise to promote sustainability. Finally, it is also strongly recommended that when designing an ICT integration program, policymakers, planners and administrators must consider the total cost of ownership and not just the cost of providing hardware.

Infrastructure and connectivity

In order to mobilize support from Telecommunications and ICT Organisations and Industries, tapping local telephone companies and ICT industries (such as TELKOM and Micro-Soft SA) for support, it is suggested that this will promote affordable Internet connectivity and computer hardware and software. Therefore, when

deploying technologies to schools throughout the province, establishing a balance between equity and effectiveness is necessary. It is also advisable that deploying ICT in different types of pilot schools or demonstration schools will generate lessons on how to increase ICT use at different school levels and cull best practices. Most studies (such as Gauteng on-line & Khanya projects) have shown that the use of satellite and Internet schemes has enabled some provinces to reach marginalised areas or economically disadvantaged groups. Therefore working closely with Internet Service Providers (ISPs) will help in determining appropriate bandwidth connection in all schools and homes around the province. Many researchers (Sharp, 2002; Salomon & Perkins, 1996; Siluma-Mmekoa, & Welch, 2004) have come to the conclusion that there is no perfect combination of online and offline resources to promote effective teaching and learning. It is therefore recommended that digital libraries for schools may be introduced as infrastructure to support and deliver teaching and learning in mathematics and science. Furthermore, ICT pilot projects in mathematics and science should not take more than three years to complete since the obsolescence rate of present-day technologies is increasing. Undeniable and without reservations, mobile computing will offer schools many opportunities that include overcoming constraints of space and giving flexibility in anytime-anywhere utilization of ICT in schools. Leasing equipment from private companies can be one solution to the problem of rapidly increasing obsolescence rate of present-day technologies. The results of the study have shown that the majority of educators do not have sufficient skills if not at all in utilisation of ICT in teaching and learning. Therefore it is recommended that Further Educational Training (FET) colleges and Technical colleges should be tapped to provide maintenance service for computers donated to schools. Donated ICT resources such as computers that have exceeded their lifespan may be redeployed for other uses or may be offered to needy learners in other schools, for instance Quintile 1 – 3 schools. Although open source software (Linux-SIS, locally-developed word processor and digital toolkit for developing web content and Virtual Realities) is encouraged in the schools, there are limitations that must be taken into account before schools decide to use open source software. These institutions should train educators on developing their virtual mathematics and science lessons because educators in a sense are pilots of curriculum development and implementation. In addition to the latter, maintaining the inter-operability of a common mathematics and science (content and virtual realities lessons) portal while ensuring that decoupling is built into the portal is a necessity. There should be adequate in-house training to help educators and learners in using this portal and in coping with the transition from manual to automated processes. Because of high burglary in local schools, it is further recommended that preparing and disseminating guidelines on ICT security by Gauteng Department of Education will help in dealing with information of security challenges in schools especially the previously disadvantaged schools found in townships of the province.

Curriculum, pedagogy and content development

Forcier (1996) has found that when educators perceive ICT as a tool to meet curricular goals, they are more likely to integrate ICT in their lessons. Following this, the results of this study have shown that educators are interested in acquiring ICT learning and teaching skills and play a pivotal role in the integration of ICT in the school curriculum and assessment. Therefore the researcher suggests that equipping both educators and learners with ICT skills will facilitate the effective integration of ICT in schools. Therefore planning should involve all ICT resources that might be used. For example, when planning the science lesson according to the National Curriculum Statement (NCS), educators will probably want to start with NCS statements or learning objectives from the Learning Programme (LP) guidelines, an exemplar would be the Work Schedule (WS). ICT would then be chosen as a resource only if it will support the teaching and learning of these objectives. Therefore when ICT targets are used appropriately, ICT can enhance teaching and learning. That is, ICT (i) can provide animations and video of the concepts, which can help learners to understand scientific phenomena. (ii) It can also give learners and educators an opportunity to use a model to change variables and investigate the effects in situations that are impossible to carry out in the classroom. (iii) If educators have access to a large-screen display or LCD projector, ICT can enhance the learning of a whole class, as learners can now have access to a shared experience. (iv) Educators can demonstrate the use of a data logger to collect and analyse data, displaying the information graphically, or model concepts and ideas using software simulations and video. (v) Learners can also benefit from the interactive nature of the technologies to explain and present their work. Because the role of the educator is paramount in raising standards in Mathematics and Science, therefore when (vi) ICT is used as a demonstration tool, it allows the educator to demonstrate scientific concepts and models, to explain and ask questions, to stimulate discussion, invite predictions and interpretations of what is displayed and to encourage individual learners to give a response or explanation. (vii) It can also be used to enhance individual learning, with structured tasks and activities focused on the scientific ideas. (viii) It can be used just as effectively in the

plenary session where learners can demonstrate and explain what they have learned, and showcase their work (Forcier, 1996). For these benefits to be realised, it is suggested that educators should select appropriate science activities for their learners. They need to select computer activities that require appropriate levels of ICT skills. If learners are struggling with a new aspect of the technology, this may have a negative effect on their learning in terms of science. The science lesson should not normally be used for the teaching of new ICT skills. However virtual reality can work for educators as a tool in assisting learners to become immersed in a learning environment where they can participate in their own learning in a technology based environment. It has been pointed out for example that no tool is good or bad by itself and its effectiveness depends on how it is used (Salomon, & Perkins, 1996). They went on to say that ICT in education cannot be isolated from the learning environment in which it is situated. Change has to take place. Roles of educators and learners and the whole culture of the school have to change. Like any other tool, computers should be used to optimize the potential of the learners. With the same tool (computers), it is not surprising to achieve different results (Salomon, & Perkins, 1996). For assessment process, it is recommended that when ICT is introduced for assessment purposes, there is a need to reconsider the assessment approaches. For example, lessons should not only be provided through the use of ICT but also learners should be assessed through the use ICT. Undeniably that shifting pedagogical approaches to the use of ICT in education is time-consuming. It is however recommended that shifting pedagogies, redesigning the curriculum and assessment, and providing more autonomy to the schools will help to optimize the use of ICT. Hence this shift of pedagogical approaches should be facilitated through appropriate professional development of educators. It is a known factor that South Africa lacks suitably qualified mathematics and science educators (Parliamentary speech, Minister of Education 2009). In order to help educators or to empower them it is suggested here that attracting well-established foreign education software developers to work with local companies will help to develop high quality ICT-based resources specifically in mathematics and sciences. Consequently establishing digital libraries of ready-to-use and customizable ICT-based resources will promote a better use of ICT in teaching. Such libraries will also facilitate quick and easy access to resources for making lesson plans and assessment for teaching and learning. Having a mechanism in place for monitoring and evaluating content developed for virtual mathematics and science lessons will also ensure political and cultural validity, reliability and correctness. While local content in the local language (for example Afrikaans) promotes better use of ICT-based resources and materials, the use of English in schools will optimize the potential of ICT (especially the Internet) for teaching and learning.

Professional development

To ensure continuous training of educators, from pre-service to induction to in-service professional development, it is recommended that training agencies should be mobilized and labour divided among them, with the Gauteng Department of Education providing central coordination. Professional development is more likely to succeed if continuous training of educators is a built-in process and is offered as a benefit to them. From the analysis of results, it has been noted that there is no data base for ICT training. Therefore it is also suggested that a centralized training administration system for all teaching of these subjects and managers is crucial to document and monitor professional development. Peer and school-based training of educators by their more experienced peers from other schools or senior education specialists from the Gauteng Department of Education will ensure that educators are trained in the context of their workplace.

Holliman and Scanlon (2004) indicated that “incorporating online learning into professional development on ICT enriches educators’ experience and makes them comfortable with online learning” (p. 67). Following this needs-based just-in-time learning and peer coaching will ensure further development of the educators’ ICT and pedagogical skills. ICT competency standards should serve as a benchmark for formulating and evaluating educators training programmes and use of ICT in teaching. Customizing national-level ICT competency standards for each school, depending on its socio-cultural context, will ensure ICT integration and acceptance. A peer-peer system approach where novice educators work together with expert educators in a classroom using ICT will contribute towards changing prevailing mindsets. Training educators on ICT-related skills within the context of classroom objectives and activities will ensure the development of skills in the integrated use of ICT in teaching. Furthermore ICT professional development programme for educators should be planned, taking into account the vision of ICT in education policy that was alluded to earlier. Training education personnel at all levels will also ensure that all aspects of ICT use in schools are implemented in an efficient, coherent and complementary way. It is also suggested that formal certification of in-service professional development that leads to diplomas or degrees could provide an incentive for educators to upgrade and update their skills in and knowledge of ICT integrating in Mathematics and Science. Hence educators’ interest in using ICT after their

training will more likely grow if they are provided with computers, training materials and software for classroom use and virtual lesson development.

Monitoring and evaluation

Researchers such as Forcier (1996) have pointed to fact that proper use of ICT tools offers learners and educators learning and teaching opportunities and improves teaching and learning processes. Furthermore investment in research and development projects and centres has contributed towards examining existing pedagogical practices, revising and refining practices, and exploring new pedagogical approaches to ICT in education. Research has also helped policymakers to formulate ICT targets and goals. It is again recommended that evaluation can therefore demonstrate the reasons for the under-utilization of ICT resources (like Gauteng on-line) and identify major obstacles to their full utilization in schools. This is a situation that this study found among the participating educators. It has been have shown that action research is one of the best methodologies for documenting the process of effective ICT integration (Cuban, 2000). Assessing the learning impact from ICT use is better measured through other means besides the paper-pencil test method. To gather the most meaningful data on the integrated use of ICT in schools, it is once more suggested that both quantitative and qualitative methodologies should be used. Such methodologies should employ various data gathering instruments, such as case studies, questionnaires, face-to-face interviews and focus group interviews. The evaluation of ICT usage in the mathematics and science curriculum programme should be a continuous process, covering planning, implementation, reflection, refinement, effectiveness, and user acceptance. Due to limited experience in ICT use in Gauteng schools specifically for teaching and learning, better quality directions for the programme can be obtained by benchmarking the quality of ICT projects against national and international studies, standards and best practices.

In conclusion, what is undeniable though is the fact that "... there is an increasing need for teachers who can effectively integrate computer technology to create meaningful learning environments" (Hargrave & Sadara, 2000, p. 1360). The ability of educators to use computer technology as part of their instruction is important because it also enhances students' ability to use computers in a classroom setting. By their own admission educators in this study indicated that they wished to be trained. It is critical therefore that the education authorities should provide the training. Without training educators will cling to their tried and tested methods. That is, they will follow teaching practises that they are comfortable and familiar with. Also, following training the educators should be provided with computers that they could take home. With unencumbered access educators will hopefully embrace computer usage in their mathematics and science classrooms. In fact it was reported by those educators who had access to computers at home in this study that they used these to plan lessons and developed tests for example. Another important finding in this study was the admission by the educators that they command some influence in their schools. For instance educators indicated that they could implement innovations in their classrooms according to their judgements and insight. This finding is important because if the educators are trained then hopefully this confidence in their ability to influence may translate into a positive starting point for integrating ICT in teaching and learning activities. Also, such educators may play a significant role in persuading their principals to purchase electronic related resources and software. The fact that the education authorities in the province have provided the computers for the schools suggests that in many ways these are underutilised. Underutilisation has the disadvantage of rendering computers as only useful for minor purposes such as typing. In fact, it has been argued that "... these powerful technologies end up being used most often for word processing and low-end applications in classrooms that maintain rather than alter existing teaching practices" (Cuban, 2000, p. 1). This issue reinforces the need to train educators to be computer literate so that they may use ICT maximally. The results presented in this study are consistent with findings that have reported that lack of training and limited access to technology are the main reasons for the low levels of computer usage in classrooms (Bosch & Cardinale, 1993; Topp, Mortensen, & Grandgenett, 1995). If South Africa is to participate effectively in the digital world perhaps it is time to consider encouraging computer usage and integrating computer technology into the curriculum in teacher education. This suggests that by the time students qualify to be teachers they would already be computer literate and hopefully ready to incorporate computers in their teaching.

The present study investigated computer usage by educators of mathematics and science in their classrooms. The findings suggest that most educators do not integrate computers in their teaching of these subjects. The results also suggest that the educators wanted to be trained in order to integrate computers in their teaching. The

implication is that authorities should provide the requisite training if computers are to be part of the teaching and learning context in South Africa. The importance of this study is that it provides information about educators' computer usage in an environment where such usage would add value to learners' understanding of mathematics and science. At this stage however the results of this study have revealed that educators are not prepared to teach mathematics and science using computers yet.

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INTERNAL AUDITING'S EVALUATION AND ASSESSMENT OF THE STRATEGIC PLANNING PROCESS – GOING BEYOND ORDINARY ASSURANCE PRACTICES

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ABSTRACT

The current practice of internal auditing does not allow it to fully add value and improve an organisation's operations. In carrying out assurance engagements, internal auditors evaluate and assess the adequacy and effectiveness of governance, risk management and control processes. Furthermore, internal auditors apply a risk-based approach to their engagements in order to enhance the quality and value they add to organisations' processes. However, the current scope of internal auditing and its approach do not allow it to evaluate and assess the adequacy and effectiveness of the strategic planning processes as well as the soundness of strategic choices made by senior management and boards of directors. Our consideration of the present internal auditing practices and literature indicate that a comprehensive review of organisations' strategic planning processes can help enhance their sustainable competitive advantage.

INTRODUCTION

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organisation's operations (IIA, 2009). It accomplishes this by applying a systematic, disciplined approach to evaluate and improve the processes of governance, risk management and control. To effectively conduct its activities in a manner that increases the possibility and probability of enhancing an organisation's value, and to achieve this with the minimal use of resources, internal auditing applies a risk-based approach to its engagements. This enables it to concentrate its scarce resources and effort to areas within an organisation that most require management's urgent and immediate attention.

Strategic planning has to do with the development of an organisation's vision and mission statements, and devising plans, policies and procedures that explain how an organisation will achieve these statements. According to Arthur A. Thompson Jr., A.J. Strickland III and John E. Gamble (2007:03) "A company's strategy is management's action plan for running the business and conducting operations. The crafting of a strategy represents a managerial commitment to pursue a particular set of actions in growing the business, attracting and pleasing customers, competing successfully, conducting operations, and improving the company's financial and market performance". For an organisation to accomplish success in the market and maintain continued existence, it is significant that a sustainable competitive advantage is maintained in the market in which an organisation competes. To achieve this, an organisation needs to perform effective strategic planning processes and make sound, winning strategic choices.

Both internal auditing and strategic planning are important areas within an organisation – both aim their efforts at adding and improving value within an organisation. An audit of the strategic planning processes can help enhance an organisation's competitive advantage. While an audit of governance, risk management and control processes allows internal auditing to evaluate strategic planning, this takes place at a stage that is less opportune

for internal auditing to add value to strategic planning, and this ultimately leads to failure to enhance an organisation's sustainable competitive advantage. Internal auditors mainly focus their efforts at the strategy implementation and evaluation phases of the strategic planning process. The strategy formulation phase, which is arguably the most important of all the strategic planning phases, is normally not included in the risk-based, long-term internal audit plans. Also, the stage in the strategy implementation phase that has to do with the design of implementation strategies is currently not being evaluated by internal auditing. A detailed discussion of each component of internal auditing scope and strategic planning phases, as well as the possible role of internal auditing in each strategic planning phase will help shed some light on current deficiencies in internal auditing practices and suggest ways in which improvements can be made.

GOVERNANCE PROCESSES

The Institute of Internal Auditors (IIA, 2009) defines governance as “The combination of processes and structures implemented by the board to inform, direct, manage, and monitor the activities of the organisation toward the achievement of objectives”. These processes and structures will of necessity include strategic planning, inculcating a culture immersed into ethical conduct and values, creating an environment where risk management and control form the basis for an organisation's culture, and setting the tone at a higher level within an organisation that will determine the day-to-day practices, philosophies and conduct of all those who are involved in an organisation's operations.

The discussion above implies that the strategic planning process is part of governance processes. Senior management and boards of directors need to ensure that the strategic planning process takes place at appropriate times to help chart an organisation's future and also define how the envisaged destination will be reached. When assessing governance processes, internal auditors evaluate the design and operational effectiveness of these processes. This helps add value by identifying any design and operational deficiencies and making appropriate recommendations to help resolve problems identified. However, these evaluations and assessments normally take place long after processes under review have been designed and implemented. By the time an internal audit report on governance processes reaches senior management and the board, mistakes that were made during the design stage have already been implemented, sometimes resulting in major losses of resources and the competitive edge. This reduces internal auditing to a feedback tool that management cannot rely on for the purposes of preventing undesirable events before they occur. This contradicts the main reason behind the existence of internal auditing, which is to become a preventive, detective and corrective tool of senior management and boards of directors.

RISK MANAGEMENT

“Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect an entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.” (COSO, 2004). The actual practice of risk management does not allow for real-time participation, by risk practitioners, during the strategic planning process. Performance of SWOT analysis for an organisation does not meet the need for a detailed, comprehensive risk management process (SWOT analysis looks at the strengths, weaknesses, opportunities and threats of an organisation).

The collapse of many corporate entities leading to and during the economic crisis serves as evidence that boards of directors may not be aware of banana skins that can make their entities slip and fall, or that they become aware of these when it's too late – when no corrective measures can help remedy the situation. This calls for a new approach to risk management – one that will be pre-emptive and continuous in its efforts to identify and arrest risk exposures that may lead to entities experiencing fatal accidents. In **Strengthening Enterprise Risk Management for Strategic Advantage** (COSO, 2010) Mark S. Beasley, Bonnie V. Hancock and Bruce C. Branson state that “Some individuals, upon first learning about an ERM approach to risk management, perceive it to be merely a compliance or bureaucratic exercise done separately from other activities to satisfy the expectations imposed by those within or outside the enterprise. That kind of viewpoint fails to see how ERM creates strategic advantage. Thus, risk management and strategy-setting activities are often viewed as separate and distinct, with risk management sometimes stigmatized as being a non-value adding, compliance, or regulatory function with no visible or clearly articulated connection to the organization's strategy. Unfortunately, to some extent the Sarbanes-Oxley legislation passed in 2002 exacerbated the notion of risk as being of a

financial nature only when in reality sources of risk are much broader in terms of potential impact on an organization's business objectives and strategic goals."

Integrating risk management processes in the entire strategic planning process will help save costs by identifying risks and addressing them before damages occur or before they reach an irreversible stage. The current practice of identifying risks once the strategic planning process is completed does not benefit organisations at all.

INTERNAL CONTROLS

These are measures put into place to address risks identified. They can be useful only if risks are identified on a timely basis. Thus, the development and implementation of internal control measures is entirely dependent on the adequacy and effectiveness of risk management processes. Controls that are designed to ensure the adequacy and effectiveness of the strategic planning process form part of an organization's entity-level controls. They provide assurance that strategic planning processes are valid, relevant and appropriate, and that there are safeguards for exposures to strategic options made.

STRATEGY EVALUATION PHASE

This is in itself a control mechanism for the entire strategic planning process. It affords the planning team an opportunity to assess and evaluate the results of their planning and implementation efforts. To enhance future performances, and to entrench a culture of continuous improvement within an organisation, past performances should be evaluated against the targets and expectations they were implemented to achieve. Furthermore, a thorough review should be undertaken to ensure continued relevance and appropriateness of strategic objectives, as well as the efficiency and effectiveness of implementing mechanisms. Thompson *et.al* (2007:43) asserts that "So long as the company's direction and strategy seem well matched to industry and competitive conditions, and performance targets are being met, company executives may well decide to stay the course. Simply fine-tuning the strategic plan and continuing with efforts to improve strategy execution are sufficient. But whenever a company encounters disruptive changes in its environment, questions need to be raised about the appropriateness of its direction and strategy. If a company experiences a downturn in its market position or persistent shortfalls in performance, then company managers are obligated to ferret out the causes – do they relate to poor strategy, poor strategy execution, or both? – and take timely corrective action."

The results of evaluation of the old strategy will help enhance the quality of the current strategy formulation process, and as a result improve the implementation of the newly developed strategic plan. It is therefore the view of this document that the strategy evaluation phase is the first phase in the strategic planning process, followed by both the strategy formulation and implementation processes, in that sequence.

The ability of internal audit to draw management's attention to threats and opportunities, and to help them enhance their control mechanisms both at entity and process levels provide high levels of assurance that an organisation will sustain, and even improve its competitive advantage.

STRATEGY FORMULATION PHASE

The strategy formulation process comes after a thorough assessment and evaluation of:

- Strategic options made in the previous planning cycle and their continued relevance;
- The effectiveness, efficiency and economy of implementation mechanisms and monitoring measures of the past strategic plan in light of actual performance;
- The extent of achievement of prior cycle strategic objectives; and
- Causes for failure to achieve objectives in the past and the level of cost and efficiencies with which success was accomplished.

In this phase, and on the basis of the output produced by the strategy evaluation session, participants begin by revisiting the existing vision and mission of an organisation. The mission statement, which according to David F.R. (2009:85) answers the question "What is our business?", and the vision statement, which answers the

question “What do we want to become?” need to be assessed and, when necessary, revised to continue relevance to the following factors:

- The current size of an organisation in comparison to when it started;
- The markets and countries into which an organisation has expanded and the total size of the market share it currently commands;
- The prevailing economic conditions and its possible aftermath;
- Prevailing market conditions with regard to mergers and acquisitions, new regulations, new competition patterns and emerging technologies; and
- Possible or recent diversification into new industries or sectors.

In light of the enhancements made on the vision and the mission statements and organisation can perform a SWOT analysis. It would make sense that participants start this process by scanning the external environment to identify opportunities and threats. Starting by scanning an environment over which an organisation has no control, or just limited control, enables an organisation to devise realistic responses and strategic options. The internal environment cannot drastically change the external environment; the reality is the other way around.

“To perform an external audit*, a company first must gather competitive intelligence and information about economic, social, cultural, demographic, environmental, political, governmental, legal, and technological trends.” David F.R. (2009:105). All this information would have been gathered during the pre-planning phase. Following the identification of opportunities and threats, and having devised mechanisms to respond to both these factors, an organisation will focus its effort on identifying strengths and weaknesses. In addition to this activity, an organisation will carry out a Value Chain Analysis to determine the soundness of the core and supporting activities. It is on the basis of the SWOT and the Value Chain analyses that an organisation is able to set its objectives and strategies. According to David F.R. (2009:36), “Objectives and strategies are established with the intention of capitalising upon internal strengths and overcoming weaknesses.” An organisation’s resources are its main sources of strength. Identifying weaknesses and devising relevant response mechanisms may enable an organisation to turn these weaknesses into advantages. Skills, specialised expertise, finances, advanced technologies, assets, external ratings, assets, strategic alliances, research and development, and strong goodwill are just among an exhaustive list of resources an organisation can possess.

Ensuring that the core and support functions of an organisation are structured such that relevance is maintained towards an organisation’s vision and mission statements is quite a giant step towards achieving a sustainable competitive advantage. Understanding the competencies, core competencies and distinctive competencies, as well as how to maintain and continually enhance these factors will see an organisation standing a better chance of outperforming its competitors.

According to J. Kroon (1995:123), “Goals and objectives must be formulated after the best alternative has been chosen.” Thus, an organisation must ensure that, after a long process of brainstorming, ideas of participants are merged and polished such that only objectives that, when achieved will guarantee strategic success, are adopted. Objectives must be set with an end in mind. In the present day corporate environment, setting financial objectives alone is not enough. According to the King Report on Corporate Governance (King III, 2009:109), “Reporting should be integrated across all areas of performance, reflecting the choices made in the strategic decisions adopted by the board, and should include reporting on economic, social and environmental issues.” As reporting is done on the achievement of objectives, or failure thereof, it becomes clear that when strategic, operational, financial and programme objectives are set, they should be devised to satisfy the economic, social and environmental imperatives of an organisation (what is commonly referred to as triple bottom line).

Objectives also need to meet certain criteria in order to enable ease of measurement and accomplishment. Vaguely designed objectives normally result in confusion to those charged with accomplishing them. “Objectives should be quantitative, measurable, realistic, understandable, challenging, hierarchical, obtainable, and congruent among organisational units. Each objective should also be associated with a timeline.” David F.R. (2009:176).

Once objectives have been set, a detailed analysis should be made of alternative strategies that an organisation can choose from. “Strategy analysis and choice seek to determine alternative courses of action that could best enable the firm to achieve its mission and objectives.” David F.R. (2009:220).

David F.R. (2009:178) goes on to list the alternative strategies that can be pursued by an organisation. These include “forward integration, backward integration, horizontal integration, market penetration, market development, product development, related diversification, unrelated diversification, retrenchment, divestiture, and liquidation.”

Thompson et.al (2007:134) briefly discusses five distinct competitive strategy approaches. These are:

- i. **A low-cost provider strategy** – striving to achieve lower overall costs than rivals and appealing to a broad spectrum of customers, usually by under pricing rivals.
- ii. **A broad differentiation strategy** – seeking to differentiate the company’s product offering from rivals in ways that will appeal to a broad spectrum of buyers.
- iii. **A best-cost provider strategy** – giving customers more value for their money by incorporating good-to-excellent product attributes at a lower cost than rivals; the target is to have the lowest (best) costs and prices compared to rivals offering products with comparable attributes.
- iv. **A focused (or market niche) strategy based on low costs** – concentrating on a narrow buyer segment and outcompeting rivals by having lower costs than rivals and thus being able to serve niche members at a lower price.
- v. **A focused (or market niche) strategy based on differentiation** – concentrating on a narrow buyer segment and outcompeting rivals by offering niche members customised attributes that meet their tastes and requirements better than rivals’ products.

A combination of strategies may be chosen to enable an organisation to succeed in the market. For instance, opting for a backward integration strategy may enable an organisation to achieve both the best-cost and the differentiation strategies.

The wealth of knowledge that internal audit units are normally armed with enable them to provide practical and value-adding advisory services to organisations.

Among the activities that internal audit can perform during the strategy formulation session are:

- Determining whether the information on the basis of which environmental scanning and value chain analysis are performed is reliable, accurate, relevant, up-to-date and complete;
- Providing participants with advice regarding the extent to which the vision statement, the mission statement, strategic objectives, strategic choices and recommended implementation mechanisms are aligned;
- Providing assurance to participants that critical and significant risks have been satisfactorily identified and appropriate responses adopted; and
- Providing reasonable assurance regarding the adequacy and effectiveness of control mechanisms developed to ensure achievement of objectives and strategies, and pointing participants to areas where there are control gaps.

The objective-risk-control model that internal auditors apply in performing their work is more relevant in the strategy formulation phase than anywhere else in the planning process. The output of SMART* tests which internal auditors can perform on the setting of objectives can ensure that objectives are designed such that those charged with accomplishing them understand their tasks in terms of targets, measures and timeframes relevant to the achievement of these objectives. The value derived here is that objectives will be achieved both efficiently and cost-effectively.

Advising management regarding the adequacy and effectiveness of strategic risk management, designed implementation mechanisms and monitoring measures have the advantage of ensuring that the benefits of strategic planning exceed the planning and the implementation costs. And assessing the alignment between all strategic components ensures that efforts are directed towards implementing correct plans, thus avoiding misalignments, waste, duplications and losses in the process.

Being able to avoid the risks that competitors may find themselves trapped in; and having the ability to understand objectives and related implementation mechanisms may ensure efficiency and cost-effectiveness in achieving strategic objectives. All these benefits, put together, may ensure that an organisation is more flexible, more responsive to opportunities and utilises fewer resources to achieve more in the market. Thus, with all these factors in place, a competitive edge in the market place can be easily attained and sustained.

STRATEGY IMPLEMENTATION PHASE

A strategy formulation session based on reliable, accurate, current and complete information, with participation by more relevant interest groups and stakeholders, gives the best opportunity of getting off the ground rather than a formulation process performed in a fantasy world, with only top management involved in its crafting.

Implementation mechanisms would have been developed and assessed for practicality during the formulation session. This would have included the following:

- Identifying the performance areas for each strategic objective;
- Identifying the key performance/operational objectives for each major performance area;
- Identifying key performance activities for each key performance objective;
- Identifying the key performance indicators and key performance measures for each key performance objective;
- Allocating work to specific people, giving them specific targets and specifying the timeframes within which objectives and goals should be achieved;
- Allocating resources to enable effective implementation of the strategic plan;
- Having an organisation-wide communication mechanism to ensure that everyone, including those occupying lower ranks, are informed of the direction an organisation is currently taking; and
- Putting in place all the necessary, adequately designed preventive, detective, monitoring and corrective measures that will ensure timely identification, reporting and correcting of deficiencies.

For the implementation phase to become a success, all employees of an organisation, at whatever level, need to play their part within well-defined roles. “Managers and employees throughout an organisation should participate early and directly in strategy-implementation decisions. Their role in strategy implementation should build upon prior involvement in the strategy-formulation activities.” David F.R. (2009:261).

Senior management must not go on holiday now that the formulation phase has been completed. Their actual work starts in the implementation process. Ideas that appeared good on paper but prove impractical to implement may require the immediate attention of, and timely intervention by, senior management and the board. However perfect the plan may be on paper, there may be a need for some adjustments during the implementation phase. This often has less to do with planning errors and more to do with changes that take place in the market, political, legislative and social environment during the time taken to move from the strategy formulation phase to the strategy implementation phase.

There should be assurance that all the well-designed communication and monitoring models are enforced by policies, procedures and training. The ideal organograms would have been developed during the formulation phase to enable synchronisation with formulated strategies. Communication of all strategies, organograms, policies, procedures and programmes must take place and actual implementation must not be delayed.

Multinational organisations should understand the different cultures in which their strategies have to be executed and cater for the possible differences in the way the strategy will be implemented in country A as opposed to country B.

Internal audit exists to add value and improve an organisation’s operations regarding governance, risk management and internal controls. By identifying deficiencies in processes, operations and internal controls, and by making recommendations for improvement and performing consulting activities where management lacks technical capacity, internal audit helps management realise targets – efficiently and economically.

Continuous engagement with management, with the purpose of pointing them to areas of deficiencies, and giving them support to resolve identified problems, will assist management to be on top of their game. With more water-tight evaluation mechanisms, strategic plans and implementation models, management has a far better chance of attaining and maintaining a sustainable competitive advantage than organisations that are less organised, less prepared. The involvement of internal audit should increase the levels of assurance regarding these matters.

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GENDER INEQUALITY IN DEVELOPING COUNTRIES: A HOUSEHOLD RESOURCES MANAGEMENT PERSPECTIVE

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ABSTRACT

The purpose of this paper is to analyse and evaluate the processes of gender inequality as experienced in the international context, but with a focus on the household resources management. The application of gender equality through government legislations, still poses serious debates in academic literature and practice. The management of family households still poses challenges as opposed to legislative requirements sets in international standards. Issues of tradition versus modernity in this aspect still pose threats and stability of the implementation of the gender equality in the households. Despite the legislations passed by governments to promote equality in their respective societies, the responsibilities of men and women in the households remain blurred. Men remain the sole decision makers in the household resource management, while women are considered less significant in the same aspect.

INTRODUCTION

Governments worldwide introduced some legislations to counteract the problems of gender inequality in both the households and working environments. In South Africa those include the Constitution of South Africa, 1996, the Domestic Violence Act and other policies such as the Affirmative Action and the Employment Equity Act and the Department of Water Affairs and Forestry Gender Policy. All such policies are said to have been approved to ensure a positive political, economic and social development for all South African citizens. The question asked by many in this regard is: Are gender policies really making any significant change to the modern societies? The research question to be answered in this paper is whether the application of gender policies are making any significant changes regarding the female and male gender in the households perspective. It has been argued that despite such policies and legislations applied by most developing countries, the situation remain unchanged and men remain the sole decision-makers in the households and at the same time ignoring the role of women in decision-making.

CONCEPTUALISING HOUSEHOLD AND HOUSEHOLD RESOURCES MANAGEMENT

Before engaging in this argument it is important to understand the definition and the meaning of the concept household. According to Food and Agriculture Organization (2003), a household is defined as a basic unit for socio-cultural and economic analysis. D' Hease and Kirsten (2006), emphasises co-residence. FAO (2003) and D'Hease and Kirsten (2006) collectively suggest that a household is based on the arrangements made by persons for providing themselves with food or other essentials for living, and may be one-person or multi-person. The household members may pool their incomes and have a common budget to a greater or lesser extent; they may be related or unrelated persons or a combination of both. Households may consist of extended families that make common provision for food or of potentially separate households with a common head. Households may also occupy more than one housing unit. Similarly, a household may also includes those persons who normally reside with other members of the household but are away temporarily. For example, full-time students or those engaged in seasonal migratory labour (FAO, 2003; D' Hease and Kirsten, 2006).

According to Schmeer (2005), household resource management is having access and control over economic resources that consist of the amount of an income they earn. Household resource management includes dynamics that are related to decision-making, assigning priorities, resource allocation, and access to and control over resources such as land, water, time, credit, and savings (Schmeer, 2005). For most rural households the decisions around the management of resources are taken by men; generally, men are dominant in decision making (World Bank, 2000; Kirjavainen, 2008). Women do not really have much of a say when it comes to the decision makings and management of household resource. Basic household resources include: Human resources (labour, skills, education attainment, and knowledge), natural assets (land, water), physical resource (infrastructure and buildings, irrigational system, technology), and social resources (social networks, and information), financial resources (capital, income, and loans), and another important resource is time (Ellis, 1998, 2000; Ellis and Mdoe, 2003; D' Hease, and Kirsten, 2006).

HOUSEHOLD RESOURCES MANAGEMENT IN INTERNATIONAL CONTEXT

Gender inequalities in household resource management and the extra burdens that women face because of their gender roles can limit women's ability to manage household resources. In some countries, women obtain rights to use land for household and personal crops through men. This may result in women not being able to produce viable agricultural products and strengthening their household livelihoods. Consequently, women may often lack credit and other resources to improve their livelihoods (FAO, 2003). According to FAO (2003), in Kenya, Malawi, Sierra Leone, Zambia, and Zimbabwe it has been revealed that women receive less than 10% of all credit earmarked for smallholder farmers and only 1% of the total credit to agriculture. These has negative impact on women farmers because they are unable to buy seeds, fertilisers, and, new technological equipments, they are also unable to invest in new farming strategies. These may eventually lead to them not being able to increase their productivity (FAO, 2003).

It is important for rural women to be included in the management of resources and in decision makings. They should be regarded as the users and managers of resources, especially natural resources (Adetunji and Adepoju, 2009). Women are responsible for providing foods for the households, they secure overall family welfare, and they are somehow the backbone of small-holder of agricultural production (Ellis, 1998; Adetunji and Adepoju, 2009). Additionally, management of resources by women is crucial because it is their responsibility to sustain and maintain the standard of the household (Schmeer, 2005; Adetunji and Adepoju, 2009).

There is a huge difference between the roles and responsibilities performed by men and women in the households. Gender roles are dynamic and ever changing. Roles vary according to geographic location and are the result of religious, cultural, socio-economic, and political circumstances. Gender roles are highly influenced by expectations based on class, age, ethnicity, culture, and religion. For instance, a man will be expected to play a different role in the society from that of a woman, and boys and girls are taught from an early age that there are certain roles that they can and cannot play. For example, in Bangladesh, Nepal and Thailand, and many African countries it is a women duty to collect fire wood (Schmeer, 2005; Adetunji and Adepoju, 2009).

Gender Inequality and Allocation of Resources in the Households

Household resources allocation refers to the processes by which resources are distributed among individual household members and the outcomes of those processes. These processes may be done in an unfair or a fair manner (Quisumbing, 2003). Many rural households need to survive by fulfilling their fundamental basic needs through the utilisation of their basic assets and resources (Quisumbing, 2003). However, in fulfilling those needs, household members may in many instances attempt to make separate decisions concerning the use of gender-specific decisions and gender-specific production functions in the pursuit of their survival strategies (Akram-Lodhi, 1997; Quisumbing, 2003).

According to Bryceson (2002), many donors are changing their approach to rural poverty alleviation to one that emphasizes: reducing vulnerability to increase resilience and improve livelihoods sustainability and livelihoods diversification, the role of a broader range of assets (natural, physical, financial, human and social) over the narrower, and traditional focus on farmers' means of production (land, labour capital). The policies aim to improve the assets held by the poor households' especially female headed households in order to increase their productivity. There is a need to understand the existing households' livelihoods assets in the rural areas

(Bryceson, 2002). According to Scoones (1998) and Bryceson (2002) those livelihoods assets are: *Firstly*, human capital, which comprises of the skills, knowledge, ability to labour and good health important to the ability to pursue different livelihood strategies. *Secondly*, social capital: the social resources, e.g. networks, membership of groups, relationships of trust, access to wider institutions of society upon which people draw in pursuit of livelihoods. *Thirdly*, physical capital: the basic infrastructure, e.g. transport, shelter, water, land, energy, communications, the production equipment and means which enable people to pursue their livelihoods. *Fourthly*, financial capital: the financial resources which are available to people whether capital, income, savings, supplies of credit or regular remittances or pensions which provide them with different livelihoods options.

Human capital

Human capital comprises the skills, knowledge, ability to labour and good health important to the ability to pursue different livelihood strategies. For example, education is the existence of a positive link between access to, and level of human assets, on one hand, and involvement in the more remunerative non-farm activities, on the other. Ellis (1998) highlights that breaking down the non-farm sector between casual non-agricultural wage employment and regular, salaried employment typically reveals that the probability of employment in the latter sector rises as education levels rise. The opposite is often observed for employment in the casual non-agricultural wage sector.

Social Capital

Social capital comprises the social resources (e.g., networks, membership of groups, relationships of trust, and access to wider institutions of society) upon which people draw in pursuit of livelihoods. There is ample evidence of the influence of social capital on access to different types of employment, and an increasing amount of empirical research that supports this also. Reardon (1997) observes that: other characteristics [aside from education], such as race, gender or caste, also play an important role in determining the probability of employment. Gender like age, is a dimension of human capital, but its effects are mediated through social institutions – hence its discussion here under social capital. There is general consensus in the literature that gender is a significant factor determining access to social assets opportunities. Ellis (1998) indicated that the majority of the poor in sub-Saharan Africa are women. They have, therefore, greater need than most for the income that can be secured through involvement in the non-farm sector. Women have long been constrained in the activities in which they are permitted or able to participate, by tradition, religion, or other social mores. Both Ellis (1998) and Reardon (1997) points out that the activities in which women are involved are more circumscribed than those for men. As far as non-farm income is concerned, women participate to a greater degree in wholesale or retail trade or in manufacturing, than in other sectors.

Physical capital

These includes hard infrastructure (e.g., roads, telecommunications, power and water, land), as well as production equipment and buildings that are more likely to be individually owned. There is a consensus in the literature on the critical role of infrastructure in the livelihoods diversification (Scoones, 1998 and Bryceson, 2002). Additionally, Reardon (1997) find that the availability of low entry barrier in to sustaining the household livelihoods is that labour intensive jobs tends to be associated with gender, caste and class (which lower the per capita costs of providing infrastructure), dynamic agriculture, unequal landholdings, and the development of rural towns outside metropolitan areas. Roads are the most important asset in sustaining the livelihoods of the households (Ellis, 1998; Reardon, 1997). Ellis (1998) observes that, in Africa, poverty can be largely explained in terms of location, and lack of access to physical capital such as land, water, and roads. Due to lack of roads the majority of African women farmers currently ‘head-load’ their products to local markets. However, improvements in transportation can also usher in increased competition for rural enterprises, formerly protected by their remoteness. Ellis (1998) points out that infrastructure improvement does not only increase the supply of competing products, but also contribute to a change in rural needs, priorities, and preferences. Reardon (1997) indicated that the distributional impact of physical capital (i.e. land and roads) improvements is uncertain due to poor distribution and allocation of resources which is informed by gender inequality in most cases.

Financial Capital

The financial resources which are unavailable to the rural women are capital, income, savings, supplies of credit or regular remittances and pensions which provide them with different livelihoods options. This is one of the principal problems for poor rural households and individuals wishing to start a business and diversifying their livelihoods, whether in the farm or non-farm sector (Ellis, 1998; Reardon, 1997). Without start-up funds, or with only little cash available for investment, households are limited to a small number of activities which yield poor returns, partly because of the proliferation of similar low entry barrier enterprise. In the same way, women and poor households with little or no personal savings may find themselves unable to meet their needs.

Studies by Quisumbing and Haddad (1998); and Deere, Duran, Mardon, and, Masterson (2004) have shown that in most African countries, the control and allocation of resources and assets such as education, labour, capital, technology, land, and fertilisers lie in the hands of men. Women have access to these resources and make use of them, but the control and ownership remain in the hands of their men. For example, women in Arab Republic of Syria have limited control over agricultural resources; therefore they are usually responsible for caring for livestock and poultry (ILO, 2000). Women's farm work in Syria usually includes planting, seeding, weeding, harvesting, fruit collection, crop residue collection and pruning, animal feeding, milking, and egg collection. However, Syrian women have little role in marketing and sale of the products. In 91 % of households, this is a male task. Rural women in Syria also tend to have little decision-making power within the household regarding the disposal of family income. According to ILO (2000), limited control over agricultural resources is a barrier to access to credit, equipment and resources, and sustainable livelihoods diversification. Male control of marketing further reinforces women's lack of control over income (Quisumbing and Haddad, 1998; ILO, 2000; Deere, Duran, Mardon, and, Masterson, 2004). Additionally, there is high degree of inequality in terms of resources allocation and power in the decision making process. These inequalities may be revealed by conflicts and consensus within the household (Akram-Lodhi, 2005).

Triple Role of Women

According to Moser (1993), the concept of the triple role is not an arbitrary categorisation, it derives from the predominantly feminist debates in the extensive literature on gender relations from both the First and Third World countries. This provides the knowledge base for the new tradition of gender planning (Moser, 1993). Additionally, the typecasting of the roles of women as 'home and domestic makers' is firmly continuing (Moser, 1993). In most developing countries, women have triple role. The triple role is divided into reproductive work, productive work and community managing work (Moser, 1993, and D'Hease and Kirsten, 2006). Reproductive work includes roles such as child bearing, child rearing, and caring for the sick, and the elderly. Productive work is often regarded as secondary income earnings. This is usually in the form of agricultural work in rural areas, and in urban areas is in the form of sectoral enterprises. Women also undertake community managing work, which revolves around the provision of items of collective consumptions undertaken in the local community (Moser, 1993).

In developing societies, there are stereotyped roles of men as breadwinners, that is the male as a productive worker is predominant, even when it is not borne out in reality (Moser, 1993). Additionally, men perceive themselves as primary income earners even if they are unemployed or earning less income in comparison to women. Generally, men do not have a clearly defined reproductive role, the only role they understand as male species is that of a productive role (Moser, 1993). Men also undertake community role but in different ways from women, reflecting a further gender division of labour (Moser, 1993; D'Hease and Kirsten, 2006). While women have a community managing role based on the provision of items of collective consumption, men have a community leadership role to play (Moser, 1993). Men normally organise the formal political gathering. This occurs generally within the framework of politics (Moser, 1993). Additionally, it is universally agreed that the central problem remains in the concept of power and its opposite, oppression, articulated gender relations in terms of the subordination of women to men. Furthermore, "it is the gender divisions of labour that are identified above all, as embodying and perpetuating female subordination" (Barrett, Reardon, and Webb, 2001; and Moser, 1993,28). This operation is termed the gender division of labour. The fact that some tasks are allocated predominantly and exclusively to women, and others to men, is persistent in human society. Divisions of roles at any point in time vary from country to country and from one society to another (Moser, 1993). It is in this context that this subsection will examine and address the different roles of men and women; the gender division

of labour provides an underlying principle for separating out and differentiating men and women's work in the societies. The following are the triple roles that are played by women:

(i) Productive roles refer to work carried out by women for payment in cash or kind. Productive role unlike other two roles is considered as the 'real' work (D'Hease and Kirsten, 2006). The role guarantees an extra income for the household. In rural areas, this role includes working at the nearby farms, as domestic workers in nearby towns and cities, and as self-employed (D'Hease and Kirsten, 2006). The economic or productive role of women especially in an agricultural sector is characterized by their participation in two separate yet possibly overlapping areas: (a) as laborers in farm related operations of other landowners, commercial plantations, and agribusiness corporations, and (b) as farmers or family workers in owned, spouse- or family-owned, and/or leased farms. Briones (2002) reported that women agricultural wage earners often land in low-paying, casual, piece-meal jobs. On the other hand, Rengam (1994) found that in some parts of Asia where women occupy the most subordinate roles, they are the lowest paid workers assigned to the most strenuous or hazardous tasks like mixing and applying pesticides. Engaged as hired labour in farming systems, Asian rural women including those in the Philippines generally figure prominently in transplanting, weeding, harvesting, threshing, and manual paddy processing but the males outnumber them in ploughing and non-manual or mechanized work (Swaminathan, 1998).

(ii) Reproductive roles involve childbearing, childrearing responsibilities and domestic tasks, some of which are biologically determined (i.e., only women can breastfeed) while others are gender-related (e.g., in some households, women do most of the cooking). This role required to guarantee the maintenance and reproduction of the labour force. It includes not only the biological reproduction but also the care and maintenance of the workforce (husband and working children) and future workforce such as infants and school going children (Moser, 1993; and D'Hease and Kirsten, 2006). This role is naturally considered women's work; mainly because women bear children and this connects them naturally to the reproduction of all human life. They also extend it to the nurturing and caring not only children but also adults, if they are sick and aged, through the daily provision of a range of domestic services (Moser, 1993; D'Hease and Kirsten, 2006). Generally, a crucial issue relating to women's reproduction work concerns the extent to which it is visible and valued. Despite its actual character, it is not seen as a 'real work'. Domestic labour has a clear demarcation between work and leisure. Caring for young children is without the beginning and the end. Because reproduction work is not considered 'real work', women tend to work long hours than men. They are the first to get up and the last to sleep at night (Moser, 1993).

(iii) Community roles (*Community managing and Community politics work*) are those activities that contribute to the welfare and organization of the community, such as maintenance of common areas (D'Hease and Kirsten, 2006). Similarly, this role comprises activities undertaken primarily by women at the community level, as an extension of their reproductive role (Moser, 1993). This is to ensure provision and maintenance of scarce resources of collective consumption, such as water, health facilities and education. It is a voluntary unpaid work undertaken in 'free time' (Moser, 1993). The community politics role is in contrast as it comprises activities undertaken by men at the community level and organizing at the formal political level. It is usually paid work, either directly or indirectly, through wages or increase in power and status (Moser, 1993; and D'Hease and Kirsten, 2006).

Like reproductive work, community managing work is seen as 'naturally women's work'. Community managing is defined as 'the work undertaken at the community level, around the allocation, provisioning, and managing of collective consumption' (Moser, 1993, p. 28). Women in their acceptance of the gender division of labour, see the house as their sphere of dominance and take primary responsibility for the provision of consumption needs within the family. These needs include the needs of a collective nature at the neighbourhood and community level. Additionally, mobilisation and organisation at the community level is a natural extension of women's domestic work (Moser, 1993). Generally, women are naturally associated with the private sphere and men with the public sphere (Moser, 1993).

CONCLUSION

As earlier indicated in the argument, in most rural households the control, allocations, and management of resources lies in the hands of men. Women do not have the authority to decision making and management of household resources, they are considered insignificant in this aspect. This inability of women to manage household resources increases women's burdens in achieving their aspirations. Consequently, this may result in

women not being able to produce viable products that will improve, maintain, sustain and strengthen their standard of living.

It is important for rural women to be included in the management of resources and in decision makings. They should be at the heart of household resources management since they are the users and managers of resources, especially natural resources (Adetunji and Adepoju, 2009). Additionally, women are regarded as the managers and designers of the households hence it is very important to include them in the control, allocation, distribution and management of the household resources. They are responsible for providing foods for the households, they secure overall family welfare, and they are somehow the backbone of small-holder of agricultural production (Ellis, 1998; Adetunji and Adepoju, 2009). The management of resources by women is crucial because it is their responsibility to sustain and maintain the standard of the household.

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COMPARING SERVICE FAILURE AND SERVICE RECOVERY IN SOUTH AFRICAN, UNITED STATES AND IRISH RESTAURANTS

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ABSTRACT

Businesses should offer customers high service levels in an effort to increase customer loyalty and retention. However, despite their best efforts, service failures do occur, thereby necessitating the need to offer effective service recovery to keep customers from defecting to competitors. Restaurants in particular should deal effectively with service failures as competition increases, especially from international entrants. The purpose of this study is to examine service failures and recovery as experienced by South African restaurant patrons. Results are compared to findings from similar studies in the United States and Ireland.

INTRODUCTION

Chow, Lau, Lo, Sha and Yun (2007) suggest that higher levels of service quality lead to higher levels of customer satisfaction, which ultimately leads to higher levels of customer patronage and profit. Cranage and Sujan (2004) agree by stating that businesses should try to maintain high levels of service quality, as poor service would reduce the probability of repeat business. However, despite service organizations' best intentions to achieve 100% customer satisfaction, it is unlikely that this objective can be achieved, due to the multi-dimensional nature of service encounters (Mueller, Palmer, Mack & McMullan, 2003). Sparks and Fredline (2007) concur: achieving a service environment with zero defects is difficult – perhaps even impossible. Sparks and Fredline (2007) therefore suggest that although it is important for businesses to strive towards reducing the number of service failures – it is important to investigate the best service recovery methods. Lewis and McCann (2004) explain that ineffective service recovery implies that the customer has been let down for a second time. According to Lewis and McCann (2004), this could lead to defection to a competitor, a loss in confidence in the business, and the spreading of negative word-of-mouth. Kau and Loh (2006) add that this can lead to customer complaints, a breakdown in the relationship with the business and defections.

Restaurants in particular should strive to offer their customers satisfactory service, together with effective service recovery in the event of a service failure, as it is extremely difficult for restaurants to sustain a competitive advantage (Enz, 2008) in an ever-increasingly competitive restaurant industry (Ladhari, Brun & Morales, 2008) where the growth in the number of restaurants surpasses demand (Dutta, Venkatesh & Parsa, 2007). Concomitantly, successful established restaurants face increasing challenges as competitors or start-up restaurants attempt to imitate elements of successful restaurants in an attempt to increase their success rates (Hajar & Burt, 2007). These challenges are compounded when considering that the opportunities for marketers of consumer goods and services to enter international markets have never been greater, resulting in an increasing number of restaurant operators looking at entering international markets (Mueller *et al.*, 2003). Mueller *et al.* (2003) therefore argue that it is becoming increasingly important to assess cross-national differences (and similarities), as more service organizations seek opportunities in foreign markets.

Although being a developing country, South Africa offers lucrative opportunities to restaurateurs who consider internationalizing their operations, as the total income from restaurants, coffee shops, takeaway and fast-food outlets amounted to approximately R26.7 billion in 2009, with restaurants and coffee shops accounting for the bulk of this income, namely 69.1% (Statistics South Africa, 2009). International restaurateurs could therefore benefit from gaining insights into South African restaurant patrons. The aim of this paper is thus to report on the effect of service failures and recovery on restaurant patrons. Data was collected from South Africa's Gauteng and North West Provinces. The findings from this study are presented and then compared to results of similar studies by Mueller *et al.* (2003) among United States (US) and Irish restaurant patrons.

LITERATURE REVIEW

The concept of service quality and its importance in the service industry have become widespread in services marketing literature (Hu, Kandampully & Juwaheer, 2009). Many studies in the services field have posited the benefits of providing customers with quality services and building relationships with customers in order to satisfy their expectations (Namasivayam & Mattila, 2007). Silber, Israeli, Bustin and Zvi (2009) argue that it is essential for businesses to manage their service offerings in order to remain competitive, specifically in the restaurant industry, which has been faced with increased competition in the last twenty years. However, despite businesses' best efforts, service failures do occur due to human involvement in service production and consumption (Mattila & Cranage, 2005).

Service failures are defined as service that does not live up to customer expectations (Hess, 2008; Sparks & Fredline, 2007). De Run and Ting (2006) explain that from a customer's perspective, a service failure occurs whenever something has gone wrong, such as slow service or getting the order wrong. Businesses need to recognize that the severity of the failure will influence how dissatisfied customers are, since research has shown that the greater the service failure, the more dissatisfied customers are (Hess, 2008). The consequences of service failures need to be understood by businesses, since service failures could lead to customer frustration, anger, dissatisfaction, complaint behavior and switching behavior (Yuksel, Kilinc & Yuksel, 2004). It is important to note that it is the way in which the business reacts to the service failure (the service recovery strategy) that will influence customer satisfaction and, ultimately, customer loyalty and retention (DeWitt & Brady, 2009).

Service recovery refers to all the efforts the business undertakes to rectify or respond to the service failure and aims to move the customer from a state of dissatisfaction to one of satisfaction (Sparks & Fredline, 2007; Hocutt, Bowers & Donovan, 2006). As Wong (2004) explains, good service recovery efforts could even lead to higher levels of satisfaction compared to before the service failure occurred, implying that businesses should see service recovery as an integral part of providing customers with quality services and satisfying customer expectations. Sparks and Fredline (2007) and Wong (2004) suggest that the main service recovery strategies that businesses can implement include apologizing and acknowledging the mistake, fixing the problem and providing the customer with some form of monetary compensation. De Run and Ting (2006) add that effective service recovery must be timely and adequate. As Hu *et al.* (2009) and Wong (2004) explain, businesses must understand the impact of quality service recovery. Successful recovery can provide the business with benefits, such as positive customer perceptions of the business; positive word-of-mouth; customer satisfaction; and increased customer retention and loyalty, which are vital to ensure business profitability.

Central to the idea of relationship management and customer retention is the fact that businesses should respond to customer needs by quickly recovering from service failures (Zineldin, 2006). However, most businesses are more concerned about gaining new customers rather than retaining old ones. Businesses should therefore realize that it is more cost effective and beneficial to retain current customers than to recruit new customers, making customer retention a vital component for long-term success and one of the most important objectives a business should pursue (Mendoza, Marius, Pérez & Grimán, 2007). Customer retention allows businesses to predict future purchases and reduce sales and marketing costs, while retained customers will make referrals to others and may even be willing to pay higher prices for the service and product offering (Kassim & Soudien, 2007). Christopher, Payne and Ballantyne (2002) therefore conclude that businesses can improve their retention rates by taking corrective action to solve customer problems through service recovery and aiming to

prevent these problems occurring in the future. Solving or responding to customer needs and recovering from a service failure could therefore lead to increased customer retention.

PROBLEM STATEMENT AND OBJECTIVES

Numerous authors (Rahman, 2009; Dutta *et al.*, 2007; Hajar & Burt, 2007; Mack, Mueller, Crotts & Broderick, 2000) agree that restaurants face severe competition. The intensity of competition becomes evident when considering the results from a comprehensive study by Parsa, Self, Njite and King (2005), who found that 26% of independent restaurants fail within the first year and almost 60% within three years. It therefore stands to reason that restaurants should offer satisfactory service to their customers and provide effective service recovery in the event of service failures in an effort to retain customers. By not being able to cope with these competitive pressures associated within their industry, restaurateurs would certainly perish (Rahman, 2009).

Despite the contribution that research regarding service failures and service recovery in various countries could make to develop effective global service recovery programs, as well as advancing existing knowledge concerning the effect of service failure and service recovery on customer satisfaction, loyalty and retention (Wong, 2004), few cross-national comparisons have been done (Yuksel *et al.*, 2004; Mueller *et al.*, 2003). Mueller *et al.* (2003) therefore suggest that it is becoming increasingly important to assess cross-national differences (and similarities) as more service organizations seek opportunities in foreign markets. The following objectives were therefore formulated for this paper:

- To investigate service failures and service recovery in South African restaurants;
- To compare the results from this study with the results from a similar study conducted among restaurant patrons in the US and Ireland.

RESEARCH METHODOLOGY

Sample and data collection

The target population for the study included white restaurant patrons in South Africa's Gauteng and North West Provinces. White people were specifically selected because of their higher disposable income and similar living standards to those of OECD nations (Devarajan & van der Mensbrugghe, 2000), so as to compare the results to those similar to the US and Ireland (two developed countries) studies. In total, 360 useable questionnaires were collected for analysis. An interviewer-administered survey was used to collect data from restaurant patrons who have visited a restaurant within a three-month period prior to the commencement of the study. The questionnaires were fielded by trained fieldworkers among the target population.

Measuring instrument and data analysis

The questionnaire consisted of a number of sections. The first section served as introduction by explaining the intent of the survey and contained screening questions to ensure only those who patronized restaurants in the preceding three months participated in the study. The questionnaire measured the demographics of respondents, restaurant patronage behavior, perceptions regarding causes of service failures at restaurants, perceptions regarding the severity of the service failure experienced, whether a complaint was lodged or not, the restaurants' service recovery efforts, respondents' levels of satisfaction with these efforts and patronage behavior after a service failure was experienced. Structured questions were used to elicit responses. The questionnaire included multiple-choice questions where respondents had to indicate their preference from a number of options. Multiple-item, labeled, five-point scales were furthermore used to measure respondents' likely complaint behavior by requiring respondents to indicate the likeliness that they will respond in a certain way. The questionnaire was pre-tested among the target population of the study before it was fielded.

This paper reports on the descriptive statistics of the study. Percentages are reported for the different questions included in the questionnaire. A comparison is then drawn between the results obtained from this study and those from similar studies conducted in the US (n=392) and Ireland (n=327).

RESULTS

Sample profile and restaurant patronage behavior

either married (47.2%) or single (40.8%). Respondents' ages varied between 20 and 29 (38.9%), 30 and 39 (18.1%), 40 and 49 (18.1%), or 50 to 59 (15.8%) years old. Only 3.3% of respondents were younger than 20 with the remaining 5.8% being 60 years old or older. The majority of respondents (43.6%) spend on average more than R200 when going to a restaurant, followed by those who spend between R100 and R200 (31.9%). Almost 61% of respondents indicated that they have visited a restaurant between one and five times in the three months prior to completing the questionnaire, with a further 30.3% visiting a restaurant between six and 10 times in this period. The remaining 9.1% of respondents dined 11 times or more at a restaurant.

Concerning patronage behavior, it was determined that respondents consider the quality of food (69.2%), type of food offered (68.9%) and type of restaurant (62.8%) as the most important aspects when selecting a restaurant, whereas entertainment for children (11.1%) and whether the restaurant is well known (8.9%) are viewed as the least important considerations. Franchised restaurants, whether a sit-down (48.3%) or fast food restaurant (26.9%), are frequented mostly by the respondents. Sit-down restaurants, whether franchised (48.3%) or independently-owned restaurants (22.5%), also seem to be more frequently visited than fast food restaurants. Respondents typically frequent the restaurant they usually go to monthly (45.6%), followed by weekly (34.2%). Respondents patronize the restaurant they usually go to mostly over weekends (55%), but also to a lesser extent on weekday evenings (33.9%). Most respondents usually dine in a party of two (41.4%), followed by those dining in groups of four (26.1%). In terms of loyalty to the restaurant respondents usually go to, 42.8% indicated that they are loyal to the restaurant, while the majority (52.5%) is indifferent to the restaurant and a small percentage (4.7%) indicated that they are not loyal at all.

Service failure and service recovery

The major cause for service failures in restaurants experienced in the last six months involve service-related problems (71.3%), followed by food-related problems (46.4%) and the necessity to repeat orders to waiting staff (44.0%). Other noteworthy causes for service failures included poor quality food (23.4%), inappropriate employee behavior (e.g. unhelpful; unfriendly; staff attitude) (22.8%) and not getting what was ordered (22.2%). Concerning the severity of the service failure experienced by respondents, most indicated that they considered the service failure to be either moderate (51.1%) or minor (38.4%). Only 10.5% considered the service failure as major. When asked if they complained about the failure to a restaurant staff member, the majority of respondents (63.1%) indicated that they did, while the remaining 36.9% chose not to do so.

The service recovery efforts restaurants utilized in response to service failures are reflected in Table 1. It is interesting to note that respondents indicated that in 10.8% of the cases restaurants did nothing in reaction to a service failure. Where restaurants reacted to a service failure, the majority offered an apology (70.4%), followed by rectifying the service failure (50.2%) and offering an explanation of the service failure (45.1%). Compensation was also given by the restaurants, but to a much lesser extent.

Table 1: Restaurants' service recovery efforts

Recovery efforts by restaurant (more than one option could be selected)	Frequency	Percentage
They did nothing	23	10.8%
They provided an explanation for the problem/mistake	96	45.1%
They rectified the problem	107	50.2%
They gave me a discount	29	13.6%
They apologized for the mistake/problem	150	70.4%
They gave me free drinks/meal	21	13.3%
I did not have to pay for my meal	13	8.2%

When respondents were asked to indicate their level of satisfaction with the restaurants' service recovery efforts, the majority (84.2%) was either satisfied or very satisfied while 15.8% were dissatisfied or very

dissatisfied. Respondents who were dissatisfied with the restaurants' service recovery efforts were furthermore asked to indicate the service recovery efforts they would expect following a service failure. It is evident from Table 2 that the majority of those who were dissatisfied with service recovery efforts will be happy with an apology (51.3%), followed by the provision of an explanation for the service failure (43.6%). More than 28% of respondents expected not to pay for their order, while 20.5% expected complementary drinks.

Table 2: Service recovery efforts typically desired by dissatisfied respondents

Desired recovery efforts by those who were dissatisfied with recovery efforts (more than one option could be selected)	Percentage
They should have apologized	51.3%
They should have provided an explanation for the problem/mistake	43.6%
I should not have paid for my order	28.2%
They should have given me complementary drinks	20.5%
They should have given me a discount	12.8%
They should have given me vouchers/discount to use with them in the future	17.9%
Other recovery efforts	12.8%

COMPARING SOUTH AFRICA (SA), US AND IRELAND

A comparison of the results of this study with those obtained from similar studies conducted in the US and Ireland (Mueller *et al.*, 2003) shows that similar numbers of respondents participated in the studies (SA=360; US=392; Ireland=327) and that the majority of SA and US respondents most often frequent large, national chains, whereas the majority of Irish respondents visit family-owned restaurants. In all three studies, service-related problems as well as food-related problems seem to be the major causes of service failures. It is interesting to note that the respondents in both the US and Irish studies considered the service failures they experienced quite severe, while respondents in the SA study considered the service failures they experienced as moderate to minor. In terms of lodging a complaint when a service failure is experienced, the majority of US (77%) and SA (63.1%) respondents complained, compared to 40% of Irish respondents.

When respondents were asked whether or not a service recovery effort was put in place by the restaurant after a service failure was experienced, 28.4% of the respondents from the Irish and 21.9% from the US study indicated that no service recovery effort was undertaken. In contrast, only 10.8% of the respondents from the SA study who experienced a service failure indicated that the restaurant did nothing in response to the failure. Most SA respondents (50.2%) indicated that restaurants corrected the mistake or replaced their food, compared to 37% of the Irish and 29.3% of the US respondents who listed the same recovery strategy. US restaurants were seemingly more inclined to offer customers some form of compensation as service recovery (48%), compared to SA (29.6%) and Irish (23%) restaurants. While most US and SA respondents were satisfied with the restaurants' service recovery efforts, the majority of Irish respondents rated the restaurants' service recovery efforts as poor. Concerning future patronage, following a service failure, less than half of Irish respondents (37%) indicated that they would dine at the restaurant again, compared to the majority of SA (61.7%) and US (55.6%) respondents who indicated that they would. Remarkably similar percentages of respondents who indicated that an apology was offered for the service failure indicated that they would return to the restaurant in the future (SA = 61.9%; US = 60.8%; Irish = 62%).

CONCLUSION

When comparing the results from the South African study to that of the US and Ireland, it can be concluded that similarities were found between respondents from these three countries with regard to the service failures they experienced and recovery strategies offered by restaurants. SA and US respondents differed from Irish respondents in terms of complaining about the failure and their future patronage intentions. Most respondents from all three countries will, however, support the restaurant in the future if an apology was offered for the failure. This supports the claim by Wirtz and Mattila (2004) that restaurants do not have to offer compensation to customers who experienced a service failure, provided that service recovery is immediate and an apology is offered. Also, these findings support those of Mack *et al.* (2000) who found that customers in the

restaurant industry were forgiving of service failures and that almost half of those who experienced a service failure would support the restaurant again in the future. This could possibly be contributed to, as Hocutt *et al.* (2006) and Wong (2004) suggest, customer satisfaction being greater following a well-managed recovery than it could have been had the failure not occurred.

MANAGERIAL IMPLICATIONS

Although differences were noted between the results from the three studies, similarities were found in that the causes for service failures were very similar for the three countries. Restaurateurs, whether exploring foreign markets or competing locally, should be aware of the most prevalent causes of service failures and adapt their service processes to reduce the likelihood of service failures occurring. In the event that service failures do occur, management and staff should offer a prompt response to rectify the situation. By offering service recovery, restaurants stand a greater chance of customers returning in the future. Results from all three studies suggest that restaurateurs should not equate service recovery with additional costs, as a simple apology may be a sufficient response to rectify customer satisfaction – even resulting in repeat patronage.

Finally, restaurateurs should be wary to approach foreign markets with pre-conceived ideas pertaining to service quality required by locals. Results from this study showed that restaurant patrons in South Africa, a developing country, experienced similar service failures, had similar complaint behavior and showed similar responses to service recovery efforts as those in developed nations (i.e. the US and Ireland). Restaurateurs considering internationalizing their operations should therefore study local market expectations in terms of service quality, service delivery, service failures and resulting recovery to effectively compete with local competitors.

LIMITATIONS

The main limitation of this study is that the South African study was conducted among white people only. Findings could have differed significantly had the study been conducted among other population groups, because white South Africans (a minority group) are generally regarded as the most affluent group in the country, whereas black people, for example, (the majority) are the poorest group (Devarajan & van der Mensbrugghe, 2000). Also, inferential analyses were not possible as the researchers did not have access to the databases of the studies conducted in the US and Ireland.

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PROACTIVENESS TOWARDS BARTER TRADING: ROLE OF ATTITUDES

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ABSTRACT

The paper investigates firms' attitudes towards barter trading and their level of pro-activeness in searching for barter opportunities. Data was collected using a structured questionnaire from 70 media organisations in South Africa, 61 of which were barter practitioners while 9 were non-practitioners. The findings show that barter practitioners have a positive attitude towards barter trading while non-practitioners are neutral about it. The results further show that the level of pro-activeness in searching for barter opportunities among practitioners is not very high nor low but rather average and that there is a positive relationship between level of pro-activeness and attitude towards barter trading.

INTRODUCTION

Customer mobilisation and retention is at the centre of every business organisation. Achieving this is not always easy for most businesses due to heavy competition existing in most industries. General deterioration in the economic environment experienced worldwide over the past three years has made doing business even more difficult. Recession has resulted in many firms facing declining sales on their products and services. During such times, doing business as usual does not often work. According to Hee (2009) as well as Jones (2008) barter trade offers enormous opportunities for firms interested in recruiting and maintaining existing customers under difficult business operating environments. This is mainly because by offering barter opportunities to customers who may be experiencing difficulties making cash payments for products and/or services, barter trade can help avoid loss of customers during difficult economic and business times. Through barter trade, firms can conserve cash by offering their products and/or services for other products and/or services. Barter trade thus reduces the need for cash outlays and this cash can be used for other more pressing needs of the business.

Apart from being a helpful tool in managing difficult economic times, Campbell (2009) noted that barter trade can help businesses achieve greater efficiencies that deliver ongoing financial and marketing benefits irrespective of external business environmental conditions. Barter trade can thus be a strategic tool in delivering customer value and ensuring customer retention and loyalty. The Universal Barter Group (2008) reported that in 2004, barter accounted for 30 percent of the world's total business and that 65 percent of all businesses listed on the New York Stock Exchange were involved in barter trading. The International Reciprocal Trade Association (IRTA) (2009) barter trade has been experiencing continued growth over the past years in all parts of the world.

Despite its growing popularity as a business strategy, barter trade has not attracted a lot of research attention among empirical researchers. This paper aims at making a contribution to research in this area by investigating barter trade among firms in the South African Media Industry. The main reason behind choosing the media industry in this study is because literature on barter trade shows that this trade is very common among firms in this industry. This is mainly due to the highly perishable nature of advertising time and/or space in that once the time slot for example has gone past, there is no way that missed sale can be recouped. This makes offering the services through barter trade a viable option compared to losing out on sales completely. The main objectives of this paper are to (a) examine the common attitudes firms in the South African media industry have towards barter trading (b) investigate how proactive barter trade practitioners are in searching for barter opportunities and (c) investigate if there is a relationship between level of pro-activeness in searching for barter opportunities and attitudes towards barter trading.

LITERATURE REVIEW

According to the IRTA (2009) barter trade was man's first form of commerce and consisted of the one to one direct exchange of goods and/or services. Barter trade has however changed a lot over the years with newer forms characterised by variations of conditions and agreements (Hennart 1990). According to this paper barter trade refers to any form of trade in which full or partial payment for goods and/or services is made using other goods and/or services. The definition adopted is in line with how Kassaye and Viccaro (1993) defined barter trade. They defined barter as a form of transaction that requires the seller to make contractual obligation to the buyer to accept full or partial payment in goods and/or services.

There are many benefits associated with barter trade. Some of these benefits include the fact that barter trade helps increase sales, gain additional new business, retain customer loyalty, enhance productivity, improve inventory management; conserve cash, maximise profits, and gain the winning edge. Stout (2007) observed that barter trade has the potential to increase sales volumes of an organisation mostly due to the fact that it allows a company to trade with customers who due to financial problems would not ordinarily have been able to afford their products. Egan and Shipley (1996) observed that by offering the possibility to normal cash paying customers of paying using barter in their time of cash flow or credit access problems, barter trade can help enhance a firm's overall image or appeal to customers. This is mainly because the company is seen as being able to identify with the needs of its customers in their time of need.

Barter trade through use of barter exchanges, which is an organised network of businesses interested in barter trading, helps a business to promote their offers to thousands of other businesses who may be using the exchange. In so doing an organisation can also benefit by expanding their market reach in a cost effective manner. The Small Business Association (2008) noted that barter can help organisations expand their market dramatically by attracting customers who may be located far from the organisations' business area. The IRTA (2009) further observed that barter trade helps organisations put inventory, equipment and employees to good use. Less productive assets can be exchanged for more valuable products or services through barter trade instead of drastically discounting them. Expanded customer base, expanded markets, additional sales, improved cash flow and increased profit increases an organisation's advantage over competitors thus giving it the winning edge (BarterXchange 2010). The lack of transparency often associated with barter trade gives it additional benefits such as helping organisations by-pass creditor monitoring, reduce payment of taxes, and hide price discounts to avoid price wars among competitors (Cellarius, 2000; Healey, 1996; Hennart, 1990).

Firms involved in barter trade do so in-order to derive the many benefits associated with it. Neal et al (1992) recommended that firms involved in barter trade need to be clear as to the nature of their involvement. Egan and Shipley (1996) noted that while some firms are pro-active towards barter trade others are reactive or passive. They defined proactive firms as those that make a positive commitment to barter trade as a marketing tool and actively search for barter opportunities. Reactive firms were described as those who actively participate in barter trade if the competitive climate demands its use while the passive ones avoid barter trading when possible and only allow minimum participation under pressure. Neal et al. (1992) noted that the choice in barter strategy is often between a reactive or proactive strategy. They described reactive firms as those that do not actively seek out trade opportunities and often view barter trade as a second best or last resort. They noted that proactive strategy embodies determined scanning for profitable barter opportunities.

Although barter trade has been growing over the years and has many benefits associated with it, the trade still suffers from negative perceptions due to negative attitudes that people often have towards it. Cresti (2005) noted that barter is still considered a cumbersome and inefficient form of exchange further noting that it is common opinion that even if barter can be profitable and beneficial in many other ways, it should be avoided or even banned. Traditionally barter is associated with undeveloped and developing economies as well as difficult economic conditions. This makes some view it as a temporary phenomenon to be taken advantage of only till economic and business conditions improve. Campbell (2009) however observed that barter has in recent years gained popularity in some quarters as a strategic business tool in driving greater efficiencies and returns irrespective of external conditions. Krantz (2002) observed that barter trade can mislead investors when analysing financial statements of companies. This is mostly because barter trade can result in organisations

inflating their revenue with barter transactions that will not result in cash inflows to the company. The fact that barter trade can easily be used to reduce payment of taxes and that most barter deals often arises from distressed inventory which is sold at as normal prices as possible, can make some question the ethical standing of the practice.

Attitudes are very important in understanding why some firms may engage in an activity or not. Eagly and Chaiken (1993) defined attitudes as a psychological tendency that is expressed by evaluating a particular entity or idea with some degree of favour or disfavour. Armstrong and Kotler (2000) observed that attitudes put people into a frame of mind for liking or disliking things, for moving towards or away from them. Moshin (1990) observed that once formed, attitudes persist over time and are unlikely to change under ordinary conditions. It can therefore be expected that firms involved in barter trade should have a more positive attitude towards it than those who are not involved. Amongst firms involved in barter trade it can be expected that firms more proactively involved should have a more positive attitude than those who are less proactive.

RESEARCH METHODOLOGY

The data used in this analysis was collected in 2009 from media organisations in South Africa. The sampling frame consisted of 197 media firms identified from media organisations listings by the South African Government Communication and Information Systems (GCIS) Media Contact Directory, the Magazine Publishers Association of South Africa (MPASA) and the Out of Home Media South Africa (OHMSA) members. The firms were identified at strategic business unit level and not at corporate level. This was mainly due to two principle reasons with the first being that the listing used to come up with the sampling frame had the firms at strategic business unit level. The second reason was based on the realisation that it is common to have business units under the same corporate umbrella pursuing different business management practices. A total of 120 firms were drawn from the sampling frame using stratified random sampling. The firms were stratified into three main media sectors namely broadcasting (radio, television); print (newspapers and magazines) and outdoor.

A structured questionnaire was the main instrument used to collect the data. The first draft of the questionnaire was developed after reviewing literature on barter trade and conducting in-depth interviews with a convenience sample of five executives from the media industry conversant with barter issues. The draft questionnaire was then pre-tested on a total of 15 respondents from the media industry. Convenience sampling was again the sampling method used to come up with the 15 respondents used in the pretesting. The pre-testing was mainly aimed at checking if the questions were readily understood by the respondents.

The final questionnaire was e-mailed to contact personnel in each organisation. In the email the contact person was asked to pass on the questionnaire to the senior person that deals with barter trade in their organisation. In cases where there was no individual dealing with barter trade, the contact persons were asked to pass on the questionnaire to the head of marketing in their organisation. The e-mails were followed up with telephone calls for the purposes of ensuring that the questionnaire had been passed on the relevant personnel. Contact details of the individual respondents were also obtained for the purpose of making follow ups.

A total of 70 usable responses were obtained at the end of the data collection phase. This represented 58 percent response rate. Of the 70 respondents, 61 practiced barter trade while 9 were non-practitioners. The data was then analysed using version 18 of Statistical Package for Social Sciences (SPSS).

RESULTS AND DISCUSSION

Table 1: Attitudes towards barter trading – practitioners and non-practitioners

Barter Trade ...	Practitioners N = 61	Non-Practitioners N = 9	All firms N = 70	Standard Deviation
Will continue to grow and spread in the Industry	4.00	3.22	3.90	.819

Is a powerful marketing tool	4.13	3.67	4.07	.729
Should only be engaged in by a company as a last resort	2.43	2.78	2.47	.829
Is an inefficient form of trade	2.44	2.67	2.47	.896
Is ethical	3.75	3.33	3.70	.709
Is too complex	2.34	3.22	2.46	.943
Can be misleading to stakeholders when interpreting financial statements	2.98	3.88	3.09	.800
Is a progressive/innovative way of doing business and should be encouraged	3.69	3.11	3.61	.937
Overall Attitude	3.67	3.19	3.62	.550

Table 1 presents findings relating to attitude towards barter trading. A five point Likert scale with 1 = strongly disagree; 2 = disagree; 3 = neither disagree nor agree; 4 = agree and 5 = strongly agree, was used. As mean values have been used in presenting the results all mean values of 1 or to the nearest of 1 meant strong disagreement, those of 2 or to the nearest of 2 indicated disagreement while those of 3 or to the nearest of 3 indicated a neutral position. Mean values of 4 or the nearest of 4 indicated agreement while those of 5 or to the nearest of 5 indicated strong agreement. The results include the mean values of practitioners and non-practitioners separately as well as those of all firms together. Overall attitude towards barter trading was calculated as a summated average of the 8 attitudinal statements. Note that in calculating the overall attitude the statements that are negatively worded were reverse scored to allow for summation.

The results show that firms agreed that barter trade is a powerful marketing tool; will continue to grow in the future; is ethical and is a progressive/innovative way of doing business and should be encouraged. They disagreed with the fact that barter trade is complex; should only be engaged in by a company as a last resort; and that it is an inefficient form of trade. They were neutral to the fact that barter trade can be misleading to stakeholders when interpreting financial statements. From the results, it is clear that in general firms have positive attitude towards barter trade. This is confirmed by the overall attitude mean value of 3.62.

A look at the results at group level shows that in overall terms practitioners have a positive attitude towards barter trading (overall mean value = 3.67) while the non-practitioners are rather neutral about it (overall mean value = 3.19). The practitioners were positive about all the 8 statements except one to which they were neutral namely the fact that barter trade can be misleading to stakeholders when interpreting financial statements. The non-practitioners on the other hand were neutral on all the statements except two to which they agreed namely the fact that barter trade is a powerful marketing tool (mean value 3.61) and that it can be misleading to stakeholders when interpreting financial statements (mean value 3.88).

After examining the attitudes of practitioners and non-practitioners, an analysis was done of the level of pro-activeness in searching for barter opportunities. Only barter trade practitioners were asked to respond to the question and Table 2 presents the findings. A five point scale with 1 = always, 2 = often, 3 = sometimes, 4 = rarely and 5 = never, was used to measure the level of pro-activeness in searching for barter opportunities. Table 2 presents the findings on this.

Table 2: Level of pro-activeness

Company Actively Searches for barter opportunities	Frequency	Percent	Group	Frequency	Percent
Always	7	11.5	1	16	26.2
Often	9	14.8			
Sometimes	20	32.8	2	20	32.8
Rarely	23	37.7	3	25	41.0
Never	2	3.3			
Total	61	100			

The results according to Table 2 show that most of the firms rarely actively search for barter opportunities and do so only sometimes. This was reported by 23 and 20 firms representing 37.7 and 32.8 percent of the sample

respectively. 7 firms representing 11.5 percent indicated that they always actively search for barter opportunities while 9 representing 14.8 percent do so often. Only 2 firms representing 3.3 percent indicated that they never actively search for barter opportunities. From the results it is clear that while not many firms can be considered very pro-active in-terms of always or often engaged in active search for barter opportunities almost all the firms realise the need to search for opportunities with only 2 firms out of the 61 indicating they never actively search for barter opportunities. Such firms wait for other firms to approach them with barter trade offers.

The findings on level of pro-activeness were used to identify groups of firms to be used in testing for differences between firms on attitudes towards barter trading. Three groups were identified with group 1 made up of firms that always or often actively searched for barter opportunities. Group 2 was made up of firms that sometimes actively search for barter opportunities while group 3 was made up of firms that rarely or never actively search for barter opportunities. Table 2 presents statistical details of the three groups. According to results, group 1 had 16 firms; group 2 had 20 firms while group 3 had 25 firms. This represented 26.2; 32.8 and 41 percent of the sample respectively.

Table 3: Attitude towards barter trading – level of pro-activeness

Barter Trade ...	Group 1 N = 16	Group 2 N = 20	Group 3 N = 25	All Groups N = 61
Will continue to grow and spread in the Industry	4.50	3.95	3.72	4.00
Is a powerful marketing tool	4.63	3.80	4.08	4.13
Should only be engaged in by a company as a last resort	1.94	2.45	2.72	2.43
Is an inefficient form of trade	1.88	2.50	2.76	2.44
Is ethical	4.25	3.65	3.52	3.75
Is too complex	2.19	2.25	2.52	2.34
Can be misleading to stakeholders when interpreting financial statements	2.81	2.90	3.16	2.98
Is a progressive/innovative way of doing business and should be encouraged	4.06	3.90	3.28	3.69
Overall Attitude	4.08	3.65	3.43	3.67

Table 3 presents results on attitude towards barter trading for the three groups of firms grouped according to level of pro-activeness in searching for barter trade opportunities. The results show that group 1 firms had the highest mean value on four attitudinal statements that were worded positively (i.e. barter trade will continue to grow in the future; is a powerful marketing tool; is ethical and is a progressive/innovative way of doing business). Except for one attitudinal statement i.e. barter trade is a powerful marketing tool, the group 1 means were followed by group 2 with the lowest being those of group 3 firms. For the four attitudinal statements that were worded negatively (i.e. barter trade should only be engaged in by a company as a last resort; is an inefficient form of trade; is too complex; can be misleading to stakeholders when interpreting financial statements), firms in group 1 had the lowest mean value indicating higher levels of disagreement followed in order by group 2 and group 3 firms. From these results it can be said that the more pro-active the firm the more positive attitude they had towards barter trading. This again is confirmed by the overall attitude mean values which showed a high mean value on group 1 firms followed in order by group 2 and group 3 firms.

In order to find out if the differences in attitude towards barter trading between firms in the three groups were statistically significant, analysis of variance was conducted. Post-hoc tests were also done in order to identify the specific groups where statistically significant differences existed. Table 4 presents results of the analysis.

Table 4: Analysis of variance

			Multiple Comparisons		
	F	Sig.	Groups	Mean Difference	Sig.

Will continue to grow and spread in the Industry	6.706	.002	Group 1	Group 2	.550	.058
			Group 3	Group 3	.780*	.003
			Group2	Group 3	.230	.523
Is a powerful marketing tool	7.840	.001	Group 1	Group 2	.825*	.001
			Group 3	Group 3	.545*	.031
			Group2	Group 3	-.280	.337
Should only be engaged in by a company as a last resort	5.276	.008	Group 1	Group 2	-.513	.137
			Group 3	Group 3	-.783*	.008
			Group2	Group 3	-.270	.494
Is an inefficient form of trade	6.015	.004	Group 1	Group 2	-.625	.076
			Group 3	Group 3	-.885*	.005
			Group2	Group 3	-.260	.561
Is ethical	7.348	.001	Group 1	Group 2	.600*	.019
			Group 3	Group 3	.730*	.002
			Group2	Group 3	.130	.780
Is too complex	.918	.405	Group 1	Group 2	-.063	.977
			Group 3	Group 3	-.333	.483
			Group2	Group 3	-.270	.578
Can be misleading to stakeholders when interpreting financial statements	1.196	.310	Group 1	Group 2	-.088	.943
			Group 3	Group 3	-.348	.368
			Group2	Group 3	-.260	.527
Is a progressive/innovative way of doing business and should be encouraged	5.607	.006	Group 1	Group 2	.163	.836
			Group 3	Group 3	.783*	.014
			Group2	Group 3	.620*	.045
Overall Attitude	11.340	.000	Group 1	Group 2	.428*	.015
			Group 3	Group 3	.648*	.000
			Group2	Group 3	.220	.235

According to the results, statistically significant differences were found in 6 of the 8 attitudinal variables. Four of the 6 variables with significant differences showed that differences existed between group 1 and group 3. These included the fact that barter trade will continue to grow and spread in the future; should only be engaged in by a company as a last resort; is an inefficient form of trade and that it is a progressive/innovative way of doing business. The other two variables with statistically significant differences showed that the differences were between group 1 and 2 as well as between group 1 and 3. These included the fact that barter trade is a powerful marketing tool and that it is ethical. No statistically significant differences were found in the statements to the effect that barter trade is too complex and that it can be misleading to stakeholders when interpreting financial statements. The overall attitude towards barter trading showed that statistically significant differences existed between group 1 and group 3 firms. From the results it is clear that the more pro-active firms have in general significantly more positive attitude towards barter trade than the less and non-proactive ones.

CONCLUSIONS LIMITATIONS AND FUTURE RESEARCH

From the results it can be concluded that barter practitioners have a very positive attitude towards barter trading while non-practitioners are neutral in their attitude. The findings also show that firms can be categorised into different groups based on their level of pro-activeness in searching for barter opportunities. While some firms actively search for barter opportunities, others do not. Such firms would rather wait for other firms to approach them with barter trade offers and would be willing to take them. From the results it can be concluded that most of the practitioners realise the importance of searching for barter opportunities as only 2 out of the 61 firms indicated they never actively search for barter trade opportunities. It can also be said that although the practitioners realise the importance of actively searching for barter trade opportunities, their level of pro-activeness is not particularly very high. In terms of attitude towards barter trading and pro-activeness in searching for barter trade opportunities, it can be concluded that in general, higher levels of pro-activeness in barter trading is associated with more positive attitude towards barter trading.

The results of this study have wide theoretical and managerial implications on barter trading. As noted before, there is a general lack of empirical studies aimed at understanding barter trade in business literature. This study provides a good platform on which to begin interrogating issues relating to barter trade and developing theories around it. Most firms involved in barter trading also hold positive attitude towards it. This is more likely due to, among other factors, the benefits that these firms are deriving from their barter trading activities.

The findings of this study should be viewed in light of a number of limitations. These include the fact that the study was conducted using firms in one industry namely the media industry in South Africa. Future studies aimed at investigating the practice in other industries would go a long way in enhancing our understanding of the practice especially in terms of the similarities and differences that may exist across industries. The large numbers of practitioners compared to non-practitioners made it difficult to do high level statistical analysis aimed at comparing the two groups of firms. Future studies should thus take measures to ensure a more balanced sample in-terms practitioners and non-practitioners. This would help shed additional light on issues specific to non-practitioners.

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PLATE WASTAGE AT WARD LEVEL IN SELECTED PUBLIC HOSPITALS IN THE EASTERN CAPE PROVINCE

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ABSTRACT

Hospitalised patients leave the nutritious and appealing food provided for them by the hospital uneaten for various unknown reasons. Nutritional requirements cannot be met when patients fail to consume and/or leave liberal amounts of food on their plates. Plate waste studies have been used by food service and nutrition professionals in all types of food service establishments such as schools, hospitals, nursing homes, institutions and restaurants. Plate wastage can be used to calculate costs, gauge food acceptability, and measure nutritional intake, as well as to answer questions on the food service operations. A plate wastage study provides essential, valuable information that can be used as an instrument for benchmarking patient's satisfaction and acceptability of menu items, and to guide activities designed to improve menu response and efficiency. This paper aims to determine the amount of food consumed and wasted at ward level, and to find the reasons for plate wastage. These reasons will form the basis of the process to transform food ingredients into acceptable meals.

INTRODUCTION

The high prevalence of malnutrition among hospitalised patients can be attributed to inadequate intake of nutrients for several days and/or severe illness that may limit food consumption (Nutrition Research Newsletter, 2006). All too often hospitalized patients leave nutritious and appealing food provided for them by the hospital uneaten for a variety of unknown reasons (Carr, Levins & Lindeman, 2005).

Nutritional requirements cannot be met when patients fail to consume and/or leave liberal amounts of food on their plates. Plate wastage studies have been carried out by food service and nutrition professionals in many areas of food service such as schools, hospitals, nursing homes, institutions and restaurants. Plate wastage is used to calculate costs, gauge food acceptability, measure nutritional intake, and to address issues relating to food service operations.

This study intends to measure the amount of food consumed and plate wastage at ward level using visual plate wastage assessment, find the underlying reasons for plate wastage and relate the findings to the activities and processes involved in the transformation of raw materials (food ingredients) to meals. An effective menu will minimise plate wastage, optimise patient nutrition, support positive perceptions and establish the basis for meeting financial objectives. According to the results from plate wastage studies conducted, there is a high prevalence of malnutrition among hospitalised patients because of high levels of plate wastage in public hospitals. This high prevalence of malnutrition of hospitalised patients poses a challenge to the hospital food service providers to come up with practical and implementable strategies to improve the food and encourage patients to eat all the food provided for them to fulfill their dietary requirements thereby reducing food wastage.

Several studies have been conducted to examine and quantify levels of food wastage. Studies have been conducted on household wastage (Adelson & Noble, 1961), plate wastage in the Army dining halls (Arnell & Badham, 1949), plate wastage in school lunches (Comstock, Pierre & Mackierman, 1981), wastage in university catering (Kirk & Osner, 1981), wastage in catering (Banks & Collinson, 1981) and to limited extent plate

wastage in hospitals (Clone, Dickerson & Davis, 1995). As the dates indicate many of these studies are likely to reflect practices and procedures employed by today's hospital catering operations. Furthermore, no comprehensive investigations have been conducted into hospital catering systems in South Africa to measure food wastage, find the underlying reasons for food wastage and apply that knowledge to the activities and processes involved in the transformation of raw materials (food ingredients) to acceptable meals. Bender (1984) cited in Edwards & Nash (1999) states that food wastage in hospital catering systems contributes to poor nutritional intake hence leading to the term "institutional malnutrition". Hartley & Hamid (2002) reports that hospital food service continues to be an issue worldwide. For instance, it is maintained that almost half of the patients treated in US hospitals are malnourished (Hartwell & Edwards, 2003)

A number of studies have shown high levels of food wastage and poor patient food and nutritional intake. The Buzby & Guthrie (2002) indicates that 40 – 50% of 500 patients admitted to five different hospitals suffered from malnutrition and in half of the patients it was severe. The findings of a plate wastage study conducted by Giampaoli & Khanna (2006) at a long term care facility indicates the highest plate wastage in vegetable (44% consumed) and starch (41% consumed) categories. Menu items demonstrating the lowest plate wastage were the entree (70% consumed) and the dessert (64% consumed).

Hospital food service provision has an important influence on patients' quality of life and prevention of malnutrition. A study conducted by McLymont, Cox & Stell (2003) indicates that poor meal consumption has very little to do with the food, but, surprisingly it correlates with patients' missing a meal because they are either sleeping or not in their rooms when meals are served. Meal trays delivered at preset times compound problem because a patient may not be ready to eat. This increases food wastage resulting in increased costs and patients not receiving the nutrition they need to recover and regain strength, (Caithamer, 2004).

Buzby and Guthrie (2002) define plate wastage as the volume or percentage of food discarded that can be used to gauge menu acceptability. According to Connors and Rozell (2004), visual plate wastage provides valuable information that can be used as a benchmark of menu performance, to guide activities designed to improve menu response and efficiency.

This paper aims to identify and assess the user friendliness of the visual plate wastage ticksheet as a tool to establish plate wastage as one of the instruments to ensure acceptable food quality for patients. This study aims to determine the amount of food consumed and food wasted at ward level using visual plate wastage assessment, to establish the reasons for plate wastage and to use these findings to provide acceptable food items to patients, activities and processes involved when transforming raw materials (food ingredients) into meals.

METHODOLOGY

A descriptive study design was used in this study. The research problem is: hospitalized patients leave the nutritious and appealing food provided for them by the hospital uneaten for various unknown reasons. Nutritional requirements cannot be met when patients fail to consume and/or leave liberal amounts of food on their plates. Food service managers and nutritional professionals face the challenge of introducing management strategies to control, manage and minimise plate wastage. Furthermore, they need to inspire hospitalised patients to consume the food provided for them to meet their nutritional requirements.

Based on the problem statement the objectives of the research on visual plate wastage are to determine:

Research objective 1: The percentage of food consumed

Research objective 2: The percentage of food wasted

Research objective 3: The reasons for plate waste at ward level

Research objective 4: Assessing the *user friendliness* of visual plate wastage tick sheet as a tool to measure plate wastage in public hospitals.

Study population

There are nine provinces in South Africa. This study focuses on the Eastern Cape Province. There are 89 hospitals in the Eastern Cape. According to the Health District Information Systems (2005), hospitals are classified as follows: National, Provincial, Regional and District.

Study sample

A stratified random sampling method using a Strata v10 statistical package was applied to ensure that a representative of each type of hospital. The sampled hospitals were: Stutterheim Hospital, Burgersdorp Hospital, Empilisweni, All Saints Hospital, St Barnabas Hospital, Butterworth Hospital and Nelson Mandela Academic Hospital.

Selection of patients' plates

Only patients consuming normal diet meals were included in this study because they were provided with standard normal portion sizes which allowed for objective assessment of plate wastage. A Simple random sampling method was used in female and male general wards only because most of patients admitted from the identified wards followed normal diets. From each ward 20 percent of the patients were selected. Data collected through the tick sheet was coded in numbers for easy capturing and data management.

Pilot study

A pilot study was conducted at Dr George Mukhari hospital to identify gaps, flaws and inconsistencies in the data collection instrument. The first phase of the study on plate wastage was conducted at different hospitals in the Eastern Cape Province to develop appropriate, practical and implementable strategies to control costs, manage and minimise plate wastage and to assist in stimulating the appetite of hospitalised patients thereby improving their nutritional status. Public hospitals were chosen because there are no common policies in place to ensure and manage food service quality in South Africa. Each province utilises its own instruments to measure certain aspects of food service quality. This study used a quantitative research design with qualitative features.

A tick sheet with a six point likert scale developed by Comstock, Pierre & Mackiermann (1981) was reviewed, adapted and reprinted with a food items column on the left hand and horizontal rows of circles, reflecting an ascending scale of 'none consumed' (1) to 'all consumed' (6). Plate wastage data were recorded directly onto the tick sheet with a separate form used for each plate. A score of 40% was set as a benchmark denoting a minimum level of acceptance for consumption.

The tick sheet enabled the researcher to only achieve objectives (1, 2, 3, and 4).

Date _____ Meal Dinner Menu Cycle Day 2











































Food Item	None Consumed	20% Consumed	40% Consumed	60% Consumed	80% Consumed	All Consumed
Roast chicken						
Mac & cheese						
Broccoli						
Apricots						
Dinner roll						
Skim milk						
						

Figure 1. Tick sheet for a visual plate waste study.

Source: Connors and Rozzell (2004)

A structured interview schedule was designed to include the aspects adapted from a study which was conducted by MacLymont, Cox and Stell (2003) to determine the reasons for plate waste at ward level. The interview schedule presents the different options which may contribute to plate wastage for patients to tick, and an open ended question gave patients the opportunity to mention other causal factors for plate wastage.

There were some limitations which prevented this study from proceeding efficiently. Due to time constraint, this study involved plate wastage assessment of only one meal being either breakfast or lunch. Due to the fact that some patients who were very ill, the researcher was not able to interview them therefore the targeted sample size of 20 percent of patients in each ward was not met. In some cases the researcher had to apply the convenience sampling strategy to patients who were not very ill to obtain required data. Evening meals were not included in this study due to time constraints. There were also difficulties in data collection in the research process. Since this research project involved voluntary participations only, it was difficult to receive approval from the hospital CEO s and managers to conduct the research. Some of the managers were unco-operative and would not grant permission to conduct the research. Due to the rankings in the visual plate waste tick sheet it was not possible to benchmark 50% consumed as a reasonable rating for benchmarking of an acceptable level of food consumption.

RESEARCH FINDINGS

The highest number of patients who participated in the study was from the Butterworth hospital (21.67%) and the lowest number of patients was from the Burgersdorp hospital (6.67%). The responses were grouped according to the type of meal. Breakfast food items (cereal and bread) accounted for 20% of the overall responses and lunch food items (starch, protein and vegetables) accounted for 80% of the responses.

The overall average percentage of food consumed in different hospitals in the Eastern Cape Province was as follows: 24.07% patients did not consume any food items, 12.04% patients consumed 20% of the food, 9.26% of patients consumed 40% of the food, 3.70% of patients consumed 60% of the food, 4.63% of patients consumed 80% and 46.30% of patients consumed 100% of the food provided for them, Table 1.1.

Table1.1. Percentage of consumed and non-consumed food

Percentage of food consumption	None Consumed	20% Consumed	40% Consumed	60% Consumed	80% Consumed	All consumed
Percentage of patients' food consumed.	24.07	12.04	9.26	3.70	4.63	46.30
Percentage of patients' food not consumed	75.93	87.96	90.74	96.3	95.37	53.70

Responses to the interview schedule questionnaire

In responding to the open ended question relating to the possible lack of acceptance and reasons for plate wastage from patients in different hospitals, most of the patients cited personal experiences and issues, some 20% complained about being satisfied by the time the meals were served, while 22% complained of lack of appetite and 5% did not like certain food items served to them. Some of the patients complained about the inappropriate combination of food, 4% complained about the temperature of food, 14% did not like the taste of food, 15% objected to the vague portion sizes of food and 6% complained about the repetition of certain food items on the menu. Some 12% of the patients were not able to consume all the food provided for them because of medical and/or physical conditions, while 2% were not in the wards when food was served.

User friendliness of the visual plate waste tick sheet

Since the study was conducted in a hospital setting where most of the patients were very ill and could not afford to tick the visual plate wastage sheet, the method was quick, easy and convenient for the researcher.

Since the study was conducted in a hospital setting where most of the patients were very ill and could not afford to tick the visual plate waste sheet, the method was quick, easy and convenient for the researcher to use.

Shortfalls of the visual plate waste tick sheet

The intervals provided for consumption levels of food items are too wide: 10 to 19% consumed, 21 to 39% consumed, 41 to 59% consumed, 61 to 79% consumed and 81 to 99. This can result in findings not being a true reflection. It is suggested that the intervals provided for the levels be narrowed. The tick sheet used separately provides information on the percentage of consumed and non-consumed food items. Used in combination with the designed interview schedule it can also be used to determine reasons for plate wastage

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

The findings of a plate wastage study conducted by Giampaoli and Khanna (2006) at a long term care facility indicate the highest plate wastage in vegetables (44% consumed) and starch (41% consumed) categories. Menu items demonstrating the least plate waste are the entree (70% consumed) and the dessert (64% consumed). In this study vegetables were the least wasted food items with overall percentages ranging from 6% to 16% left uneaten. Percentage ranging from 7% to 19% of vegetables fell below the benchmark. No entree and dessert were served.

Sterkspruit had the highest percentage of patients (47%) who did not eat the food provided for them while 53% consumed all the food served to them. St. Barnabas hospital had the highest percentage of patients (36.84%) who consumed all the food presented to them, while about 26% did not eat at all. Burgersdorp hospital had the highest percentage of patients (60%) who consumed all the food provided to them while 20% consumed 20% of the food and 20% did not eat any of the food provided to them. Stutterheim hospital had the highest percentage of patients (27%) who consumed 40% of the food provided to them while 27% consumed all, 27% consumed 20% and 18% did not eat any of the food. Stutterheim hospital had the highest percentage of patients (27%) who consumed 20% of the food presented to them. Butterworth hospital had the highest percentage 16.67% of patients who consumed 60% of the food provided to them. Nelson Mandela Academic hospital had the highest percentage 9, 09% of patients who consumed 80% of the food provided for them.

According to the results of this study, an overall average of 75.93% of food in the selected public hospitals in the Eastern Cape was not consumed. This is an indicator that the plate wastage of food is an ongoing issue in public hospital, because most of the food consumption levels are below the benchmark of 40%. In assessing the reasons of plate wastage, a study conducted by McLymont, Cox and Stell (2003) indicates that poor meal consumption has very little to do with the food, however this correlates with the patients' missing a meal because are either sleeping or not in their room when a meal is served. The findings of this study revealed different reasons offered by patients for low levels of food consumption in selected hospitals. Most patients complained about not having an appetite at meal times, the food being served cold, being satisfied during meal times, being dissatisfied with the taste of food, repetition of food items and the physical and medical conditions. Jansen and Haper (1978) indicate that a lack of knowledge about patients' preferences and acceptance of menu items, as well as temperature and quality of food, the appearance of meals provided, appetite and taste variations are also factors that influence plate wastage. When the results of this study are compared to the findings of Hartley and Hamid (2002) it is evident that hospital food service remains a problem worldwide.

It is concluded that the tick sheet used in combination with the interview schedule is an accurate, reliable strategy to measure plate wastage at ward level. Plate wastage can be assessed and patients provide reasons for leaving the food uneaten. The feedback obtained from patients can be used to adjust and modify the activities and processes involved in the transformation of raw materials (food ingredients) to meals to make the menu appealing and acceptable to patients. Measuring menu performance is an important function of food service managers. A visual plate wastage study can provide valuable information in determining the desirability of each food item on the menu. A popular menu will increase consumption and enhance the nutritional status of patients.

IMPLICATIONS TO MANAGERS

It is hoped that the results of this study will assist hospital managers, food service managers and nutritional departments to increase food consumption by providing enhanced food service. Results of the study indicate a need to improve on and address the following food service aspects: temperature, taste, portion sizes and variety of food items.

The following suggestions are put forward:

- Communication channels should be set up between patients and the food service personnel to allow an exchange of information between patients and the food service unit on the food provided to patients.
- Food service managers should take into account the feedback received from patients on the quality of food when they plan menus.
- The food service distribution system to suite and satisfy the needs of patients. The systems should be reviewed, upgraded and altered
- The acceptance of new food items on the menu should be assessed continually using plate wastage studies.
- An effective meal ordering system should be implemented to ensure that patients are provided with meals that are suited to their physical and medical conditions

In order to increase efficiency and acceptability of food items to patients, patients' requirements and popularity of food items among patients are determinants in food consumption levels, therefore patients' preferences need to be considered when planning menus (Kennelwell & Kokkinakos, 2001). Research should be conducted continually in a hospital setting to assess the acceptability of menu items to patients thereby minimising plate wastage and assisting managers to include food items that suit the likes and appetite of patients.

Ultimately it should be accepted that the responsibility for food quality rest with physicians, nurses, food service managers and hospital managers and not only with dietitians (Beck, Balkanas, Hasunen, Jones & Keller, 2002). Although visual plate wastage is only one indication of consumer dissatisfaction, it can be used to gauge food quality (Hartwell & Edwards, 2003), and data collected using this method can be used as a basis for the evaluation of food service.

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AN ANALYSIS OF THE EVOLUTION AND IMPACT OF THE HUMAN RESOURCE DEVELOPMENT STRATEGY FOR THE LIMPOPO PROVINCIAL GOVERNMENT

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ABSTRACT

Introduction

During the late 1990's a shift was made from training to human resource development. This shift was facilitated by the promulgation of the South Africa Qualifications Authority Act of 1996, the Skills Development Act of 1998 and the Skills Development levies Act 1999. These pieces of legislation laid the political and legal foundation for human resource development and skills development. In order to operationalise this legal foundation, a management foundation was developed through the National Human Resource development Strategy for South Africa, 2001, National Skills development strategy, 2001 as well as the Human Resource Development strategy for the Public Service.

Objectives

The National Strategy is aimed at providing strategic direction for organizations, government departments and provincial governments. In order to operationalise the national strategy, the Limpopo government has embarked on a process to develop an internal staff development strategy, which is used to empower and develop all its employees to improve service delivery. This study sought to ascertain the extent to which the human resource development strategy of the province impacts on skills development.

Methodology

Primary data collected will be analyzed qualitatively through the use of appropriate statistical techniques, additional secondary information for the study will be obtained through extensive literature survey of discussion papers and other secondary records or documentary sources.

Results/recommendations

Findings will be communicated to all relevant stakeholders in the province. The author intends to publish the outcome of the study.

INTRODUCTION

Every organization needs to have well-trained and experienced human resource to enable it to effectively execute its activities. In the absence of resources, it is important to examine what the institution is doing to ensure that it is able to retain and develop its workforce. Human resource development in the public sector has become critical in an increasingly knowledge based environment, especially in South Africa where a considerable number of citizens depends on the government for provision of basic services. According to the International Labour Organisation (2009:105) in all countries, Human Resource Development is refers to formal and explicit activities that will enhance the ability of all individuals to reach their full potential, by enhancing the skills, knowledge and abilities of individuals, human resource development serves to improve the productivity of people in their areas of work.

The article focuses on the evolution and the impact of human resource development strategy in the Limpopo provincial government. The approach adopted to achieve the purpose of this article will be to provide definition of strategic human resource development strategy, Legislative framework, the evolution of human resource

development, determining human resource development needs, approach to human resource development and looking at challenges and priorities.

DEFINING STRATEGIC HUMAN RESOURCE DEVELOPMENT

Ever since the arrival of the term “human resource development”, there are many different definitions of this concept and it is for this reason that it is important to define it first. This has led to considerable confusion with various individuals, organisations and professional bodies applying the term to widely differing activities. Nadler and Nandler (1989) defines human resource development as organized learning experiences provided by the employer in a specified period of time for purpose of increasing job performance and providing growth for individuals. Garavan (1991:17) is of the view that human resource development is aimed at facilitating the achievements of organisational goals, while at the same time ensuring the full utilization of the knowledge and skills of employees.

Mello’s comments on human resource development would support the above-mentioned definitions. He refers to human resource development as an interventions aimed at bringing about lasting and positive changes within a specific employee with a view to improve employee’s personal growth, personal goals and the employer’s goals. He further content that a holistic approach is necessary for the development of human resources in the public service, such an approach includes training, education, staff rotation, attendance of workshops or conferences and online sharing of ideas by officials in similar occupational classes (Mello. 2008:204).

The American Society for Training and Development contends that human resource development includes training and development, organisation development and career development. Harrison points out that the phrase human resource development is used to the undoubted annoyance of many who prefer softer phrases such as employee development and training and development.

It is define in a strategic context as developing people as part of an overall human resource strategy and it involves the alignment of training and development activities with the organization’s mission and strategic goals through enhancing the skills, knowledge, learning ability and motivation of employees at all levels, which leads to continuous organisational as well as individual growth. A common view of the role of human resource development in relation to strategy is to see it as a means to assess and address skill deficiencies in the organisation (Mabey and Salaman, 1995:143). In practice this means that the work that is performed in the organisation is divided into certain roles and that, a competence profile has been identified whether explicitly or implicitly for each of the roles. The organisation can pursue its strategy if all its human resource performs to their roles and posses the appropriate competencies.

Human resource development is often distinguished from education, which is broader in scope. Education is aimed at developing the mental faculties of the individual, while human resource development is aimed at uplifting the application of technical skills. Education is normally associated with formal schooling, college or university teaching, whereas human resource development is vocationally orientated, has an immediate utilitarian purpose and takes place in the work situation. While the former applies more to what Statt (1991:154) refers to as the “thinkers” (managers), the latter generally applies to the “doers” (workers). However, it should be noted that these applications are not mutually exclusive. In practice, both often occur simultaneously, because some formal vocational schooling programmes have both a technical and mental application. On the other hand, some human resource development programmes presented within the work situation are broad enough in scope to serve broader educational ends, as well as cater for specific work related needs.

LEGISLATIVE MANDATE

The constitution of the Republic of South Africa, Act 108 of 1996, legislations such as the public service act 1994 (Act 103 of 1994), skills development act 1998 (Act 98 of 1998) and policies such as the White paper on Public Service Training and Education, 1997 are vehicles used to achieve the legal mandate of the Limpopo provincial government . The SETA’s are mandated to spearhead the implementation process of the above-mentioned acts and policy documents.

The Constitution of the Republic of South Africa

The Constitution of the Republic of South Africa, 1996 is the supreme law of the country and all other legislation should conform to the basic principles of the constitution. The Constitution provides a framework for the development of legislation related to human resource development. A number of principles are set out in section 195(1) to (5) of the constitution, for the purpose of this paper we will only concentrate on section 195 (1) which emphasises the good management of human resources and career-development practices in order to maximize and cultivate human potential. The implication of this section relate to the development and the empowerment of human resource in the public service to render services effectively and efficiently.

The Public Service Act

The Public Service Act 1994 (Act 103 of 1994), empowers the Public Service Commission (PSC) to monitor and evaluate training in the public service amongst many other functions and powers that they have. The act therefore requires that human resource development in the public service be in line with the strategic objectives of the government. The Public Service Commission will monitor and evaluate institutions that provide training in the public sector with the view to ascertain whether they are making positive impact to service provision.

Skills Development Act

The purpose of the Skills Development Act 1998 (Act 98 of 1998), is to develop the skills of the South African workforce in order to improve the quality of life of employees, their work prospects and job mobility in the following ways:

- To improve productivity in the workplace and the competitiveness of the public service
- To increase the levels of investment in education and training in the workplace
- To encourage employers to use the workplace as an active learning environment, to provide employees with the opportunities to acquire new skills, provide opportunities for new entrants to the labour market to gain work experience.

For the above-mentioned purposes to be achieved, the Skills Development Act, 1998 created the South African Qualifications Authority and the Sector Education and Training Authority. These institutions advises the government with regards to skills development strategies and funding that is needed. As indicated the aims of the act is not only to comply with the law but to empower employees in the public service.

White paper on Public Service Training and Education

The principal aim of the White Paper on Public Service Training and Education, 1997 is to establish a clear vision and policy framework to guide the introduction and implementation of new policies, procedures and legislation aimed at transforming Public Service Training and Education into a dynamic, need-based and pro-active instrument, capable of playing an integral and strategic part in the process of building an effective public service. The White Paper on Public Service Training and Education (1997) indicates the vision of the document as:

“To contribute towards the development of a dedicated, productive and people-centered public service stage by public servants whose performance is maximised and whose potential is fully developed through the comprehensive provision of appropriate, adequate and accessible training and development at all levels”.

Sector Education and Training Authorities

The Sector Education and Training Authorities (SETA's) have been established in terms of the Skills Development Act and as from 1 April 2000, it has been responsible for disbursement of the training levies payable by all employers. These levies are collected by the South African Revenue Service via the Department of Labour, and are disbursed through a management system motivated by skills requirement assessment and monitoring.

Thus SETA's ensures that the skill requirements of the public sector are identified and that the adequate and appropriate skills are readily available. The SETA contributes to the improvement of sector skills through achieving a more favourable balance between demand and supply, and would ensure that education and training:

- Is provided subject to validation and quality assurance;
- Meets agreed standards within a national framework;
- Ensures that new entrants to the labour market are adequately trained, and;
- Acknowledges and enhances the skills of the current work force.

It is essential that education and training that is provided, is based on a systematic analysis of its contribution to the effectiveness of the public service (Mayo, 2000:7).

THE EVOLUTION OF HUMAN RESOURCE DEVELOPMENT: A GENERAL DISCOURSE

Countries and multilateral institutions acknowledge the need to give systematic attention to the role of human resource development in supporting national economic growth and development programmes. This global acknowledgement of the importance of human resource development is illustrated by the response of the United Nations, which was formally inserted on its agenda through Resolution 33/135 of 1978. The General Assembly declared the “human resource development is a broad concept requiring integrated and concerted strategies, policies, plans and programmes to ensure the development of the full potential of human beings so that they may, individually and collectively be capable of improving their standard of living (UN, 1995:5).

The strategic importance of the development of human resource capacity in Africa was emphasised in the African Leadership Forum in June 21, 1990 in Nigeria. At that meeting, Robert McNamara the then President of the World Bank emphasized “the imperative of building local African capacities” as the cutting edge of Africa’s strategic development agenda. In his view, the lack of “necessary skills and well-managed public institutions for long term, sustainable growth was a priority to be included in every development activity in Africa because of its implications for improved development management and good governance (Antwi and Analoui, 2008:601). The above-mentioned citation is for reference purposes only as this article is examining the South African human resources development strategy focusing in the Limpopo province. In 2001, the first comprehensive countrywide human resource development strategy by the South African government was adopted. Its mission was to “maximize the potential of the people of South Africa through the acquisition of knowledge and skills to work productively in order to achieve a rising quality of life for all and set in place an operational plan, together with necessary institutional arrangements. A review was undertaken of the progress in respect to the indicators and targets contained in the 2001 Human resource development strategy for South Africa. The following are some of the findings:

- Monitoring and evaluation was not optimally done, due largely to the fact that no clear framework and institutional measures were in place.
- There was no effective mechanism in place to identify and address the demands for priority skills supply over the short-term
- The collection, management and utilization of data necessary for planning was lacking
- Many important institutions and policies that impact on the role of human resource development and the implementation of the strategy emerged only after the finalization of the strategy, which mean that they were not involved in the process.

The table below will further illustrated the some of the finding of the review, a comparison of the Limpopo Provincial statics is provided

Labour Skill Index: 2001

Area	Unskilled	Semi-skilled	Skilled	Highly-skilled	Total
Sekhukhune	26.81	52.71	18.07	2.41	100
Bohlabela	25.02	54.58	17.35	3.04	100
Mopani	25.59	52.43	18.04	3.58	100
Vhembe	21.07	54.43	20.14	3.98	100
Capricorn	18.40	53.60	23.35	4.66	100
Waterberg	20.39	54.08	21.75	3.77	100
Average	22.88	53.7	19.84	3.52	100

Source: Development Index Framework, Limpopo

After the 2009 national general elections the new administration has adopted a revised Human Resource Development Strategy for South Africa called HRD-SA 2010-2030. The purpose of the revised edition is to consolidate the gains of the previous framework and respond to the present circumstances through the creation of the following core objectives:

- To set the human resource development strategic framework in its social, economic and legal context.
- To present and explain the principles of the human resource development strategy.
- To provide a framework for the successful implementation of the strategic document.

In meeting these core objectives, the revised human resource development strategy seeks to:

- Promote and support the National Skills Development Agenda
- Ensure a continuous supply of specialist skills and promotes their absorption into the Public Service.
- Address the national skills challenges at all public service delivery points within the developmental state.
- Ensure that there is steady flow of appropriate and productive employees in all spheres of government.

DETERMINING HUMAN RESOURCE DEVELOPMENT NEEDS

According to Van Wart, Cayer and Cook (1993: 67) effective HRD and training programmes identify and develop specific skills needs in a holistic manner. As noted previously, public service training programmes have been traditionally control-orientated with management skills, moulded largely according to a generic administrative process. HRD and training should address the need for critical skills (with an emphasis on proactive planning) and sensitize the workforce to broader environmental influences (Torrington, Hall, L. & Taylor, 2002: 406). In addition, an underlying theme would be the promotion of a community and value-orientated training and development ethos. As Ngutshane (1995: 15) concludes:

“Human Resource Development (HRD) does not only address the provision of skills, but as a much broader concept that should also involve imaginative programmes to create social and political stability. Refining and incorporating the above skills focus within training and development strategy framework is consequently essential”.

Van Wart *et al* (1993: 70) suggest that three types of analysis are necessary to determine training and development needs within an organization. Firstly, organizational analysis is necessary to determine where training is needed within the organization. Secondly, operations analysis is necessary to find out who needs training and what kind of training is needed. And, thirdly, an individual analysis is essential to determine, from the employee’s perspective, what training is considered relevant for their own development.

APPROACH IN HUMAN RESOURCE DEVELOPMENT

A common view of the role of human resource development in relation to strategy is to see it as a means to assess and address skills deficiencies in the public service (Mabey and Salaman .1995: 143). In practice this means that the work that is being done in the public service has been divided into certain roles and that, a competence profile has been identified whether explicitly or implicitly for each of the roles. The public service can pursue its strategy if it’s entire employees live up to their roles and possess the appropriate skills. The skills required can alter if a change in the environment or in the services, the public service renders. When employees fail to fulfill their roles, they face a skills gap that can be close by human resource development. The following are the approaches that human resource development should take in contribution to making a meaningful difference in the public service: An approach that is driven by public service needs, by this we mean making responsive interventions in resolving capacity issues. The last one would be an approach that is driven by public service opportunities; this approach implies that human resource development has its impetus in factors outside the public service. Those responsible for human resource development in the public service unavoidably encounter a constant stream of developmental options and one part of the responsibility is to recognize such developmental options that can possibly add value to the public service’s performance.

KEY CHALLENGES AND PRIORITIES

In terms of national policy, as expressed through the Reconstruction and Development Programme mandate, expectations are that public service organizations will play an integral role in improving South Africa's service quality and productivity. However, many inequities continue to hamper this process. Some needs may be the result of inadequate human resources development planning. Training will reduce problems, which are caused by poor performance and poor recruitment, but it cannot seriously alleviate them. Similarly, low employee morale caused by remuneration dissatisfaction, is not correctable by training and development. Therefore, managers must be certain that their human resource development and training programmes are appropriate for the identified needs before they invest considerable resources in such programmes. Even if a human resource development program is appropriate to resolve a need, it may not be efficient or effective. Since it is unlikely that a human resource development programme will completely correct a problem, the cost of the programme should be considerably less than the cost of the problem. The following key priorities are recommended:

- There is a need for credible and effective institutional mechanisms in the stewardship, implementation, coordination and monitoring of the human resource development strategy
- The formulation of clear and credible indicators and targets is vital to the success of any strategy.
- There should be a re-definition of the concept of human resource development as it relates to the public service to incorporate the principles applicable to the private sector context
- There should be annual review of the public service skills to determine human resource development needs
- There is a need to identify the demand for priority skills and to formulate effective short-term strategies to ensure supply in a manner that mitigates the negative impact of any shortages in growth.
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CONCLUDING REMARKS

Human resource development provides new knowledge, skills and attitudes that are necessary for employees to perform their tasks in the public service. The needs of the public service should be priorities as well as the individual employee needs when deciding on human resource development as that will determine the kind of intervention needed.

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AN ANALYSIS OF SMALL BUSINESS OWNERS/MANAGERS' TRAINING NEEDS IN REGION C OF JOHANNESBURG UNICITY

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ABSTRACT

South Africa faces a number of challenges. Lack of management capacity among owners/managers of small businesses is often cited as one of the major causes of the failure in the sector. This problem is as a result of irrelevant and ineffective training.

This quantitative study endeavours to identify and analyse the training needs of small business owners/managers. A self-administered survey questionnaire was used to collect data from 88 small business owners/managers in Region 5 of Johannesburg Unicity.

The study found that a significant number of respondents have training needs in the areas of risk management, financial management, industry awareness and project management. The study produced a small business management competency framework.

INTRODUCTION

Post-apartheid South Africa faces many challenges of which the most important are unemployment and poverty. Government expects the small business sector to create more jobs; however, this is not a realistic expectation. There is evidence worldwide of the extremely low survival rate of small businesses. In fact, some writers claim that up to 96% of small businesses worldwide fail within 10 years of inception. Longley (2006) reveals that over 50% of small businesses fail in the first year and 95% within the first five years. According to Brink, Cant and Lighthelm (2003) the estimated failure rate of small businesses in South Africa is between 70 and 80%. Entrepreneurial activity in a country is measured by means of a mechanism known as the Total Entrepreneurial Activity (TEA) index. This index measures the proportion of adults in a country who are involved in either starting up or running new businesses (Herrington, Kew & Kew, 2006:19). The TEA is a reliable indicator of the success rate within the small business sector. According to the Global Entrepreneurship Monitor (GEM) South Africa has a TEA rate of 7,8%. This rate is significantly lower than the average for all countries in its league. A country like South Africa needs to at least have a TEA rate of approximately 13% (Herrington et al., 2008). According to Herrington et al., (2008) South African's small business sector performance has been consistently below low since 2001.

The role of the small business sector within South Africa is gaining increasing recognition. Small businesses are central to job creation, economic growth, poverty alleviation and socioeconomic transformation (Neuland & Venter 2004). The unemployment rate in the fourth quarter of 2009 was 24,3% (Statssa, 2009). This situation was exacerbated by the fact that 1 million jobs were lost during the economic recession in 2009.

According to the World Bank (2004), 46,5% of people in sub-Saharan Africa were living on less than one US dollar per day (\$1). It is unlikely that sub-Saharan Africa will achieve its Millennium Development Goal from of reducing this number from 46,5% to 22,3% by the year 2015. The development of the South African small business sector could make an important contribution to the reduction of poverty in sub-Saharan Africa.

The purpose of this study is to identify and analyse the training needs of the owners/managers of small businesses in Region C of the Johannesburg Unicity.

OBJECTIVES OF THE STUDY

The study intended to achieve the following objectives:

- to identify, in order of priority, the training needs of small businesses owners/managers in Region C of the Johannesburg Unicity
- to analyse the training needs of the owners/managers of small businesses in Region C of the Johannesburg Unicity.
- to develop a small businesses management competency framework that may be used as a basis for small business management training interventions.

RESEARCH PROBLEM

The intended focus of this study is the fact that the training provided to the owners/managers of small businesses is both ineffective and irrelevant. This training does not provide small business owners/managers with the skills that they need in order to run their businesses successfully.

Small business education and training was the special subject for the 2008 GEM survey (Herrington et al, 2008). This indicates survey that, while the need for education and training is high, the availability of such training is low. The quality of small business education and training in South Africa was rated as very poor in the GEM report (Herrington et al, 2008). These findings suggest that a lack of human capacity is one of the key obstacles to small business growth within South Africa.

According to GEM report on South Africa (Driver et al., 2001), the lack of “needed” training is one of the main obstacles to success within the South African small businesses sector. Driver et al. (2001) are of the opinion that the training needs of the potential recipients of training within the small business sector should first be analysed, as this will improve the effectiveness of any training interventions.

According to the Services Seta (2001), small businesses constitute the bulk of the contributing members within the services economic sector. However, these small business enterprises lack the resources, time and insight to engage in constructive training interventions.

According to Herrington et al. (2008), the key factors constraining small businesses include a lack of financial support, lack of education and training and poor government policies on small businesses. Education and training is one of the main areas on which small business support interventions should be focused. As Herrington et al. (2008) state: “Of all 30 GEM countries who conducted the national experts’ survey in 2008, South Africa had the highest percentage of experts identifying education and training as a major limiting factor.” According to Burke and Collins (2001), managerial problems are among the primary reasons for the failure of small businesses in developing economies. In the case of South Africa, these managerial problems arise from a lack of appropriate training.

The small business sector requires training that is needs driven. Needs driven training is training that is designed and developed to meet the specific needs of trainees. However, the reality in South Africa is that small business owners/managers are provided with resource-driven training. Resource-driven training is training that is offered because it is the only training available as well as the most convenient, but this type of training does not address the specific needs of the trainees.

RESEARCH PROPOSITIONS

The study intended to test the following research propositions:

1. **Research proposition 1:** Priority training needs of the owners and managers of small businesses in Region C of the Johannesburg Unicity can be identified and ranked in their order of priority.
2. **Research proposition 2:** The level of competence of small business owners and managers in Region C of Johannesburg Unicity can be determined by means of a self assessment instrument.

LITERATURE REVIEW

Chaykowski and Slotsve (2003) maintain that “[h]uman capital formation, through education, training and skills development, is a primary determinant of productivity and broader economic growth”. The 80% failure rate of small businesses in South Africa is far too high. Training and education are generally considered to be one of the key ways in which to reduce the failure rate of small businesses throughout the world. A thorough analysis of the

training needs of the owners/managers of small businesses may serve as a viable foundation for the development and implementation of effective training in the small business sector in South Africa.

Defining small businesses

According to the National Small Business Act (DTI, 1996) micro, very small, small and medium enterprises are collectively referred to as small businesses. However, the term “small businesses” has different meanings in different contexts and different countries use different definitions for the term “small business”. In addition to small, micro and medium enterprises, the term “small business” includes the category of very small businesses (DTI, 1996).

According to Goldstuck (2004) there is a variety of characteristics that may be used to define small businesses. Certain of these characteristics are economically motivated, while others are quantitatively motivated. The characteristics that are used to define small businesses include number of employees, turnover, independent ownership, asset value, independent management, and the degree of formalisation.

According to the National Small Business Act (DTI, 1996):

the term small business means a separate and distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the economy mentioned in column I of the Schedule and which can be classified as a micro, a very small, a small or a medium enterprise by satisfying the criteria mentioned in columns 3, 4 and 5 of the Schedule opposite the smallest relevant size or class as mentioned in column 2 of Schedule vii of the Small Business Act.

Micro enterprises refer to very small businesses, often involving the owner only, some family member(s) and, at most, one or two paid employees. Such businesses usually lack “formality” in terms of business licences, value-added tax (VAT) registration, formal business premises, operating permits and accounting procedures.

Very small enterprises refer to those enterprises that are at the bottom of the hierarchy in the small enterprise category. Very small enterprises are usually formal and are registered with the Department of Trade and Industry (DTI). These enterprises employ a minimum of five employees.

Small enterprises constitute the bulk of established businesses and may employ between five and approximately fifty employees. Small enterprises are usually owner-managed or controlled directly by the owner community. They are likely to operate from business or industrial premises, be tax registered and meet other formal registration requirements.

Medium enterprises are usually owner/manager controlled although the shareholding or community control base may be more complex. Medium enterprises employ between two to 200 employees and may have capital assets (excluding fixed property) to the value of approximately R5 million.

Small business training environment in South Africa

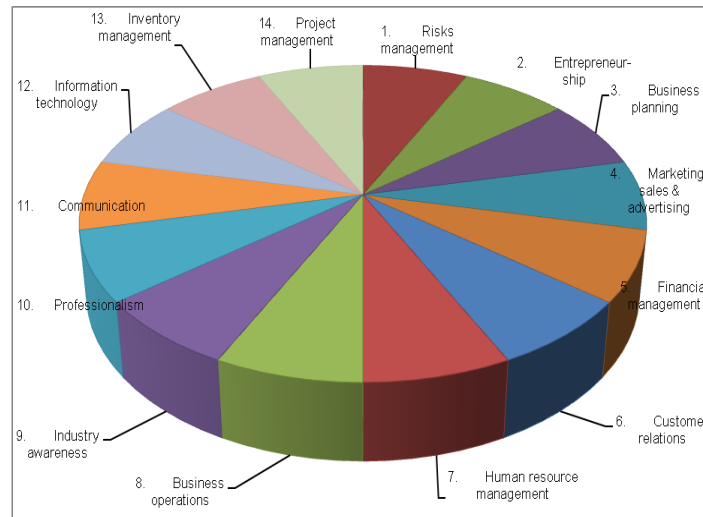
A study conducted by the Bureau of Market Research (BMR) (Ligthelm, 2002) revealed that the efforts of the South African government to stimulate small business development are not achieving the desired results. The study reports that the lack of growth in the small business sector may to a large extent be attributed to a lack of proper training. According to Biech (2009), “training is more than just a nice gesture. It’s a critical part of business”. Training in business should directly support the business goals and objectives of the enterprise. If training is to be successful, it is essential that trainers tie the training solutions to the needs of the trainees (Biech, 2009). The providers of training need to adopt a demand-driven approach to business training. It is evident that the general failure of training in the small business sector may be attributed largely to flaws in the education, training and development (ETD) processes applied by the trainers who are providing the training. De Kock and Uhlaner (2001) allege that the failure to conduct training needs analysis stems from the fact that some trainers believe that a training needs analysis is an expensive and time-consuming exercise.

Small business management competency framework

According to Analoui and Hosseini (2001), it is essential that small businesses managers should be equipped with adequate managerial knowledge and skills. Burke and Collins (2001) maintain that a shortage of managerial skills is a primary reason why of small businesses fail.

According to Perks and Struwig (2005), there are four categories of competencies required by small business owners/managers, namely personal competencies, technical competencies, business competencies and management/leadership competencies. Consistent with the four categories discussed above this study focussed on the fourteen competencies depicted in figure below.

Figure 1: Small business management competencies



Source: The alliance of sector councils of Canada.

Defining education, training and development

Hankin (2005:186) education may be regarded as any activity directed at providing the knowledge, skills, moral values and understanding required in the normal course of life. Hankin (2005) further asserts that “[e]ducation is the foundation of that which teaches people the basics of reading, writing, and arithmetic and then, hopefully, goes on to teach people how to think”. According to Haasbroek, Nel, Poisat, Schultz, Sono and Werner (2008), training refers to the planned or systematic efforts on the part of an employer to facilitate the employees’ learning of the knowledge, skills and behaviour required to perform their jobs. De Cieri and Holland (2006) maintain that “development differs from education and training in the sense that it is not aimed at imparting a particular skill or knowledge but rather at preparing the individual to excel to higher levels of functioning and reasoning”.

The concept of a training needs analysis

According to Stanley (2002), a training needs analysis should always constitute the first and most important step in the training process. A good training needs analysis should assist the trainer to understand the skills, knowledge and attitude needs of the learner in detail. This understanding will enable the trainer to design training that is appropriate for the target group. Failure to analyse the training needs first, may lead to shortcomings in the entire training process.

Many writers have contributed to the debate about the terms used when referring to the practice of the training needs analysis and writers have tended to use a variety of phrases in this regard. Some of the phrases include training needs assessment, learning needs assessment, and training needs evaluation. Attempting to dispel the confusion around terms that are used to refer to the practice of training needs analysis, Meyer (2007) states that “the terms ‘analysis’ and ‘assessment’ are often used interchangeably in the context of determining training or learning needs”. Meyer further adds that other words used to describe the same concepts include ‘diagnoses’, ‘identification’, ‘determination’ or ‘front-end analysis’. For the purpose of this study, the term “training needs analysis” will be used to refer to any process that seeks to understand the true nature, extent and characteristics of training needs, as they exist in respect of potential trainees.

Meyer and Opperman (2008) define a training needs analysis as “a process of identifying an issue or problem, collecting, analysing and interpreting data, and then using this information to select or design an appropriate HRD intervention to address the issue or problem”.

According to Pamela, Suzanne, Winfred and Winston (2003) “[n]eeds assessment, or needs analysis, is the process of determining the organization’s training needs. Needs assessment seeks to answer the question of whether the organization’s needs, objectives, and problems can be met or addressed by training”.

According to Brown (2002) a training needs assessment is an ongoing process of gathering data to determine the training needs so that training may be developed to help the organisation accomplish its objectives. In addition to providing a clear direction for identifying training needs, a needs analysis also serves as a basis for evaluating the effectiveness of the training programme.

McClelland (2001) is of a view that the primary goal of conducting a training needs analysis is to identify training needs as they currently exist or have the potential to exist in the future, and to design and develop ways and means both to address and to satisfy these needs in the most effective and efficient manner possible.

A training needs analysis would help to answer questions such as when training should be introduced, who should be involved with the training and how the training should be implemented, who should design the training programmes and what the content of such training programmes should be. A training needs analysis would provide the designer and developer of the training with useful information, which would facilitate the design, development and delivery of effective needs driven training.

Brown (2002) argues that conducting a training needs assessment is vital because it increases the chances of success of a training programme. Nevertheless, Brown (2002) claims that there is a general tendency among organisations both to develop and to implement training without first conducting a needs analysis. In most cases, such organisations run the risk of either overdoing training, doing too little training, or offering irrelevant training that does not solve the initial performance problem.

According to Cook (2005:32) an effective training needs analysis plays an essential role in ensuring that the training solutions offered to individuals, teams and organisations are relevant, timely and effective. Meyer (2007) maintains that most training programmes in South Africa are based on personal wants rather than on genuine training needs. According to Meyer (2007)

... a distinction between a need and a want in training is that a want is something merely desirable rather than something essential to competent performance. While a need should always be linked to the essential knowledge, skills and attitudes an individual must possess to perform work competently and, thereby, accomplish the desired results.

According to Stanley (2002) common types of training needs analysis methods include survey questionnaires, performance observations, performance tests, interviews and critical-incident analyses.

RESEARCH DESIGN AND METHOD

Research design

A quantitative research design, namely a survey questionnaire was used in this study. Kruger, Mitchell and Welman (2006) maintain that “a research design is the plan according to which units of analysis are obtained and from which data was collected and describe what was done to the units of analysis in order to reach conclusions about the research question”.

Data collection instrument

A self-administered survey questionnaire was used to collect the data. The questionnaire consisted of three sections (section A, B and C). The questionnaire consisted of a total of 26 items. Section A of the questionnaire (items 1 to 7) contained demographic items such as the location of the enterprise, and the age, race, education, gender, role in the business and the respondent’s length of small business management experience. Section B of the questionnaire (items 8 to 11) contained items dealing with the size of the enterprise. According to the Small Business Act (DTI) the size of a small business is determined by the annual turnover, number of full time employees and gross asset value of the business as well as the economic sector in which the business operates. The items in section C of the questionnaire (items 12 to 27) were intended to measure the perceived level of

competence and the perceived level of importance of the competencies to the respondents. These items were based on a four-point Likert scale.

Cronbach's alpha measures the reliability of a measuring instrument (Cronbach, 1951). The computation of Cronbach's alpha is based on both the number of items in the survey (k) and the ratio of the average inter-item covariance to the average item variance. The Alpha coefficient for this questionnaire was 97%, proving that the data collection instrument was consistent in what it measures (Cronbach, 1951).

Research method

A survey questionnaire was used to collect data. 200 questionnaires were hand delivered to the respondents in the sample, 88 were completed correctly and returned to the researcher, resulting into a response rate of 44%.

Data capturing and analysis

Once the questionnaires had been completed by the respondents they were collected. The questionnaires were then checked to ascertain whether they had been completed fully. Data from the questionnaires were captured into the software programme 'Statistical Package for Social Sciences' (SPSS, 2007). Once all the questionnaires had been captured, it was analysed by means of a factor analysis, component analysis and descriptive statistical analysis.

Research population

According to Kruger et al. (2006) "a research population is a study object, which may be individuals, groups, organisations, human products and events or the conditions to which they are exposed". A research population consists of a total collection of elements that may be used to refer to for research purposes.

The research population for this study comprised 400 ($N = 400$) small business owners/managers in Region C of the Johannesburg Unicity. 350 of the owners/managers came from the Roodepoort Chamber of Commerce and Industry (ROCCI: 2008) database. 50 of the small businesses in the research population were not from the ROCCI database.

The population for this study was made up of small business owners/managers in Region C of the Johannesburg Unicity. The reason why the population for this study included both the owners and managers of small businesses is because of from both the nature of ownership and management trends within the small business sector. Although the small business sector is characterised mainly by a trend in terms of which most enterprises are managed by the original owner, there are, nevertheless, instances in which the owner, who is generally an entrepreneur, hires someone to manage the enterprise on his/her behalf. It was in order to take into account this phenomenon that the study focused on both the owner/manager and also on the hired manager. In instances where both owner and manager were actively involved in the day-to-day running of the enterprise, the person who was in charge of the overall management of the enterprise only was asked to complete the questionnaire.

Research sample

In order to be able to make probability based confidence estimates of the parameters of the study, a probability sampling technique, namely, systematic random sampling was applied to select members of the sample. According to Kruger et al. (2006) a research sample refers to a manageable number of elements that is representative of the original research population. The principle of sampling implies that, by selecting some of the elements in a population, valid conclusions may be drawn by analysing the sample. A sample of 200 owners/managers ($n = 200$) were selected from a population of 400 ($N = 400$).

DISCUSSION OF THE RESULTS AND RESEARCH FINDINGS

Respondents' perceived level of competence and importance

This section (items 12.1.A to 12.4.A) deals with the respondents' perceived level of competence in respect of each of the 14 small business management competencies. Table 1 contains the results of the respondents' rating on the 14 competencies. Respondents rated themselves on their perceived level of competence (items 12.1.A to 12.14.A) and their perceived level of importance of each competence (item 12.1.B to 12.14.B).

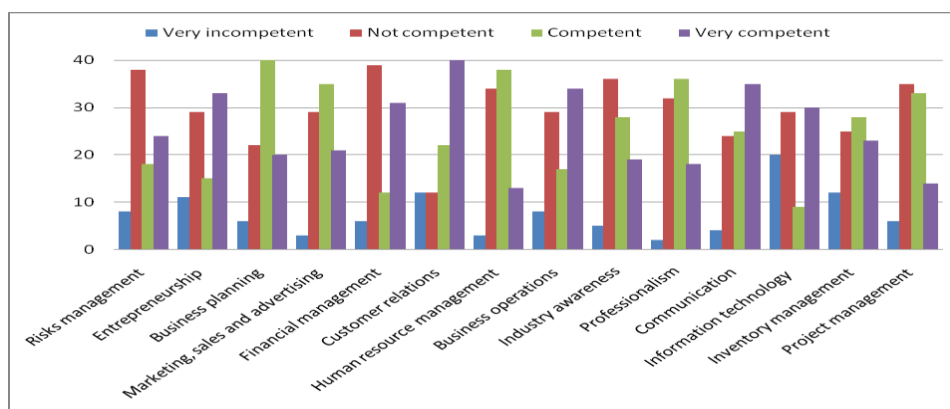
Table 1: Respondents' perceived level of competence and importance

Small business management competencies	Perceived level of competence (items 12.1.A to 12.14.A)				Perceived level of importance (items 12.1.B to 12.14.B)			
	Very incompetent	Not competent	Competent	Very competent	Not important	Least important	Important	Very important
12.1. Risks management	8	38	18	24	1	1	16	70
12.2. Entrepreneurship	11	29	15	33	0	1	24	63
12.3. Business planning	6	22	40	20	0	0	13	75
12.4. Marketing, sales and advertising	3	29	35	21	1	0	17	70
12.5. Financial management	6	39	12	31	0	1	13	74
12.6. Customer relations	12	12	22	42	0	0	19	69
12.7. Human resource management	3	34	38	13	1	0	21	66
12.8. Business operations	8	29	17	34	0	1	23	64
12.9. Industry awareness	5	36	28	19	1	0	17	70
12.10. Professionalism	2	32	36	18	0	0	14	74
12.11. Communication	4	24	25	35	0	0	18	70
12.12. Information technology	20	29	9	30	0	2	18	68
12.13. Inventory management	12	25	28	23	1	1	15	71
12.14. Project management	6	35	33	14	1	2	22	63

Respondents' perceived level of competence

According to table 1 and the table 1 and figure 2, a significant number of respondents rated themselves as not competent and very incompetent in risk management, financial management, industry awareness, project management and information technology. This finding indicates that respondents have training needs in these five competencies.

Figure 2: Respondents' perceived level of competence

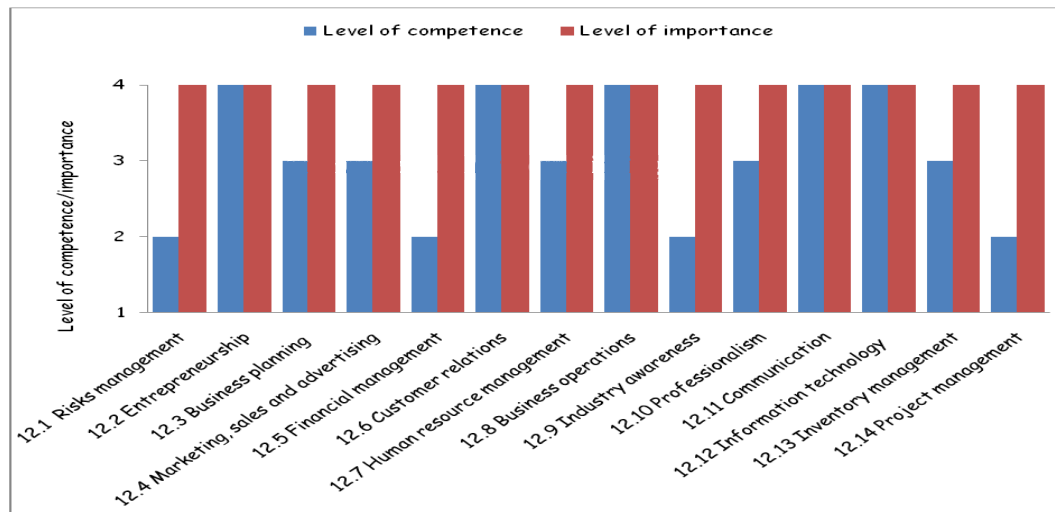


Source: researchers' analysis

Respondents' perceived level of importance

In the previous section, the respondents' perceived levels of competence were presented. This section of the report presents the results of how the respondents' rated the level of importance of each of the 14 small business management competencies. Table 1 and the figure 2, indicate that a significant number of respondents rated the 14 competencies as important and very important to them when they are running their small businesses.

Figure 3: Summary of level of competence and level of importance



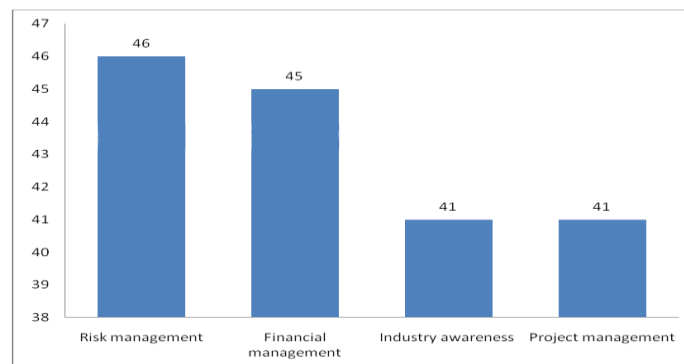
Source: researchers' analysis

Analysis of the four priority training needs

This section focuses on those respondents who were deficient in the four competencies identified in the previous section. The results in terms of risk management will be presented first, followed by the results in financial management, industry awareness and project management.

The figure 4 presents the four priority training needs in the order of significance as indicated by a number of the respondents. 52% of the respondents indicated that they were not competent in respect of risk management, 51% indicated that they were not competent in financial management, while 46% indicated that they were not competent in respect of both industry awareness and project management respectively.

Figure 4: The four small business management training needs in order of priority



Source: researchers' analysis

Risk management

Risk management was covered in item 12.1 of the questionnaire. Out of 88 respondents 46 respondents were incompetent and very incompetent in risk management. This competency refers to the ability of the small business owner/manager to manage all business risks ranging from financial risks, business risks, physical risks such as robberies, and natural risks such as storms and floods. Table 3 depicts a demographic profile of the respondents who lack risk management competency. Table 3 indicates that, of the 46 respondents who lack risk management competence, 28% are female while 72% are male. Of the 46 respondents who lack risk management competence, 26% are under the age of 35; 13% are aged between 36 and 40; 22% are aged between 41 and 45, while 39% are older than 46 years of age. 24% of the respondents lacking risk management competence are white, 21% are coloured, 35% are black and 20% are Asian.

The results indicate that the majority of people without risk management competence are those respondents with a matriculation only (37%). Those respondents with a postgraduate qualification comprised 1% only of this group. The 59% of respondents lacking risk management competence are owners of enterprises followed by co-owners at 26% and managers at 15%. Respondents from medium enterprises constitute the highest percentage of people lacking risk management competence at 33%. Table 3 indicates that 50% of the respondents who lack risk management competence are from the tertiary economic sector with the other three sectors sharing 50%.

Financial management

Of 88 respondents 45, indicated that they are either incompetent or very incompetent in financial management while 43 respondents indicated that they are either competent or very competent.

Of the 45, respondents who did not possess financial management competence, 73% were male while 27% were female. 36% of the respondents who did not possess financial management competence were older than 46 years of age, followed by 27% in the age group between 41 to 45 years with 22% being less than 35 years of age. A significant 15% of the respondents who lacked financial management competence were between the ages of 36 and 40. Majority of black respondents lacked financial management competence followed by whites and coloureds respectively. Of the 45 respondents who lacked financial management competence, 40% had Grade 12 as their highest qualification; 17% had a post-school diploma; 16% had an undergraduate degree, 11% had no qualifications, 9% had a national diploma; 4% had a postgraduate degree while 2% had other unnamed qualifications. 58% of the respondents who did not possess financial management competence were owners of enterprises, 24% were co-owners, while 18% were hired managers. 36% of the respondents came from medium enterprises; 29% from very small enterprises; 27% from small enterprises, while 9% came from micro enterprises. Of the 45 respondents who lack financial management competence, 47% were from the tertiary business sector, 24% from the secondary sector, 22% from the primary sector, with 7% from other sectors.

Industry awareness

In this study, industry awareness refers to the ability of the owners/managers to conduct industry research, to gather knowledge about the industry and to apply this knowledge in the running of their enterprises. In other words, this competence refers to knowledge of industry best practices, competitors, market trends, products and service process, manufacturing and delivery standards, and legislation regulating the industry. Of the 88 respondents indicated that they did not possess industry awareness competence.

The majority of the 41 respondents who lacked industry awareness were males (73%), with 27% of the respondents lacking this competence being females. 32% of respondents who lack industry awareness competency were over the age of 46, 29% were in the age group of between 41 and 45, 10% were in the age group of between 36 and 40, while 29% were below the age of 35. Of the 41 respondents who lacked industry awareness competence, 39% were black, 21% were white, and 20% were coloured and 20% were Asian. 34% of respondents lacking industry awareness competence had Grade 12 as their highest qualification, followed by those with a degree at 17%, those with a post-school diploma at 17%, those with no qualification at 15%, those with a national diploma at 12% and those with postgraduate degrees at 2.5% and those with other unspecified qualifications make up 2.5%. Of the 41 respondents, 59% were owners, 24% were co-owners, while 17% were hired managers. Respondents from medium enterprises are in the majority at 32%, followed by those from very small enterprises at 27%, 24% from small enterprises and 17% from micro enterprises. The majority of the

respondents came from the tertiary sector (46%), followed by 24% from the secondary sector, 20% from the primary sector and 10% from the other unnamed sector.

Project management

Project management competence includes the ability of the owner/manager to draw up project plans and contracts, implement project plans, monitor project progress, manage the resources in a project, manage stakeholder relations and utilise project management tools. Of the 41 respondents who indicated that they were incompetent in project management, 76% were males and 24% were females. Of the 41 respondents who indicated that they lacked project management competence, 34% were over the age of 46, 27% were below the age of 35, 22% were between 41 and 45, and 17% were between 36 and 40 years of age. Table 6 indicates that black respondents were in the majority in respect of those respondents lacking project management competence (34%), followed by coloured and white respondents at 24% each, and Asians at 17%. Respondents without any qualification make up 14%, those with Grade 12 make up 32%, those with post school diploma make up 20%, those with a national diploma at 7%, those with a first degree at 20%, those with a post graduate degree at 2% and those with unnamed qualifications 5%. Owners were in the majority of those respondents who lacked project management skills (63%) followed by co-owners at 2% and hired managers at 17%. Most of the respondents in this category came from small and very small enterprises followed by those from medium and micro enterprises. Of the 41 respondents, 54% came from the tertiary sector, 24% from the secondary sector, 15% from the primary sector and 7% from other, unnamed sectors.

KEY FINDINGS

The study established that a significant number of the respondents had training needs in respect of risk management, financial management, industry awareness and project management. A further analysis of these training needs revealed that:

3. Gender did not exercise an influence on the respondents' levels of competence.
4. Older owners/managers were less competent than their younger counterparts.
5. Small business owners/managers regard as important in managing their businesses 14 core competencies.
6. The owners/managers of small businesses of all sizes experience training needs on a consistent basis.
7. Small business owners/managers are in need of training in the areas of risk management, financial management, industry awareness and project management.

IMPLICATIONS OF THE FINDINGS

The results of this study have implications for both the public and private institutions that provide education, training and development services to small business owners/managers. The study also has implications for the Setas, which are mandated to provide education, training and development activities within different sectors.

CONTRIBUTIONS OF THE STUDY

This study had made the following contributions to the small business management sector:

1. The study produced a small business management competency framework consisting of 14 competencies (figure 1). A small business management competency assessment instrument has been developed and applied and this instrument may be used as a standard competence assessment tool for small business operators.
2. The primary contribution of the study is the list of priority training needs for the owners/managers within the small business sector that the study produced (figure 4).
3. The literature review provides a useful basis for a national debate on the state of training in the small business sector in South Africa.

RECOMMENDATIONS

A number of recommendations have emerged from the study and these recommendations may be applied both to specific institutions and role players in the skills development field and to the small business management and entrepreneurship sector. Some of the key recommendations include the following:

4. Training for small business owners/managers should focus specifically on risk management, industry awareness, financial management, and project management, in order of priority.
5. A national small business training needs survey should be conducted. Such a survey would assist in the development of a Personal Development Plan for individual small business owner/manager in the country.
6. It is recommended that the new department of higher education and training would amend the Skills Development Act (RSA, 1998) in order that the Setas may be aligned to this new department. This amendment should also encompass the establishment of a new Sector Education Training Authority dedicated to small businesses. The Seta should regulate the quality and relevance of the training provided to small businesses by private and public training service providers.
7. It is recommended that training service providers would align training interventions with the 14 competencies tested in this study.

LIMITATIONS OF THE STUDY

Although the study did produce useful results, it did have the following limitations: weakness of a pen and pencil assessment instrument, subjectivity of self assessment method and relatively low response rate. Accordingly, care should be exercised when generalising the results to the rest of South Africa.

1. Pen and pencil assessment instrument used in the study may have compromised the objectivity of the study as certain of the respondents may, unintentionally, have rated their level of competence either as either too high or low.
2. The self rating assessment method used in this study may have negatively affected the reliability of the results of the study. Although self-assessments are widely used in training, they do tend to be subjective in nature and the reliability of this study may have been compromised by this limitation. Nevertheless, the results of this study provide a first attempt at identifying training needs in the area of small business management.
3. The response rate for this study was relatively low at 44%. This response rate is not high enough and, for this reason, care should be exercised when generalising the results. The low response rate was aggravated by the fact that the study was conducted in one municipal region (Region C) only and there may be issues in other municipal regions that are different from those which emerged in Region C of the Johannesburg Unicity.
- 4.

CONCLUSIONS

Based on the research propositions, the following conclusions can be made:

1. Priority training needs of the owners and managers of small businesses in Region C of the Johannesburg Unicity were identified and ranked in their order of priority, these are presented in figure 4.
2. The level of competence of small business owners and managers in Region C of Johannesburg Unicity was determined by means of a self assessment instrument. The results of this are presented on table 1 and figure 2.

In attempting to identify priority training needs in the small business sector in Region C of Johannesburg Unicity, the empirical results reveal that finance, risk management, financial management, industry awareness, project management and information technology are the priority training needs. This study has confirmed that, although small businesses offer hope for economic growth in South Africa, the small business sector is not immune to the problem of skills shortage. This problem of skills shortage is a major dilemma facing the government of South Africa. The results of this study may be used as a foundation in the post economic recession efforts to revive the small business sector – not least in Region C of the Johannesburg Unicity. There is evidence that a lack of management capacity and skills among small business owners/managers is one of the

major reasons for the high failure rate of businesses in the small business sector. Training in small business management skills with special emphasis on the four priority areas identified in this study may, potentially, be a solution to the many problems facing small businesses in South Africa. Effective training in the small business sector is likely to result into a higher success rate of businesses in the sector. This would, in turn, increase employment opportunities. The results of this study provide a basis for the prospect of a better life for all in South Africa.

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THE PSYCHOLOGICAL IMPACTS OF DOWNSIZING ON EMPLOYEE SURVIVORS IN THE MANUFACTURING INDUSTRY: A CASE OF SELECTED INDUSTRIES IN THE BUFFALO CITY MUNICIPALITY, EASTERN CAPE PROVINCE, SOUTH AFRICA

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ABSTRACT

In today's business environment where most organizations are forced to restructure due to economic downturns, downsizing has proven to be a relevant strategy to organizations. Downsizing has various effects on the employees and the organization. The positive effects expected by organizations are lower overhead, and increase in productivity and thus increase organizational effectiveness. Although organizations reduce workforce to reap the benefits, it has to face the negative consequences too. The negative consequences are creation of climate of distrust, insecurity and commitment, emotional trauma; break down of psychological contract, high level of stress. Research reveals that the majority of the organization did not even achieve the financial gains from downsizing as expected. One of the reasons for the failure is ineffective handling of the people left after downsizing (survivors).

INTRODUCTION

In today's business environment where most organizations are forced to restructure due to economic downturns, downsizing has proven to be a relevant strategy to organizations. The current tendency of organizations to restructure and ultimately to downsize has a major negative impact on the organizations themselves, on their surviving and terminated employees, on the government, and on society as a whole. In fact, it is everyone's problem, and it seems to have become more the rule than the exception that it used to be especially the period from 2000 up to date. The late 2000s economic recession climate; the December 2007 in particular up to date, has been persistent and long-lasting. As a result, many organizations that were operating inefficiently have been driven out of business, and most of those that have survived were forced to restructure in order to streamline their operations and achieve operating cost savings that would ensure their continued competitiveness both on the local and global markets. In many cases, downsizing is conducted in multiple phases or on an on-going basis (Gandolfi, 2006).

PROBLEM STATEMENT

From recent studies on the impacts of downsizing, the issue of downsizing is probably the most pervasive phenomenon in the business world (Cameron, 1994). However, in most South African organizations the experience of being a survivor of the downsizing process is little understood; not enough attention is given to address the psychological impacts of downsizing upon those who survive job cuts and continue to work in downsized industries (Richard Campbell & Lewis Pepper, 2006). The fundamental issue for downsizing

organizations is not only to know the effects of downsizing on people living the organization but also keep track of the well-being of the survivors. Therefore this study intends to investigate the psychological impacts of downsizing on employee survivors in the Manufacturing Industry in the Buffalo Municipality in the Eastern Cape Province.

OBJECTIVES OF THE STUDY

- To identify the psychological impacts of downsizing on employee survivors;
- To provide recommendations to organizations on how psychological needs of the survivors can be addressed in order for them to remain productive.

PRELIMINARY LITERATURE REVIEW

In trying to track record of the impacts of the process of downsizing, it has various effects on the employees and the organizations. The positive effects expected by organizations are lower overhead, less bureaucracy, faster decision making, smoother communications, and increase in productivity and thus increase organizational effectiveness. Although organizations reduce workforce to reap the benefits, it has to face the negative consequences too. The negative consequences are creation of climate of distrust, insecurity and demotivation, low employee satisfaction, morale, commitment, increased absenteeism, emotional trauma, break down of psychological contract, high level of stress, increased conflicts, skill drain, break down of communication and loss of creativity according to Appelbaum and Donia (2001).

RESEARCH DESIGN AND METHODOLOGY

A quantitative research design will be used in the study. Questionnaires will be used to gather data from both shop floor employees and middle level managers who survived downsizing in the manufacturing sector. The research will use descriptive statistics to analyse demographic data while inferential statistics such as the Pearson Product moment correlation method will be used to analyse the relationship between the type of organizational strategy used to downsize and the nature of the consequences which result from this process. The population involved will be constituted by employee survivors within the automobile, food manufacturing and beverage manufacturing Industries in Buffalo Municipality in the Eastern Cape Province. The sample for this study will consists of approximately 150 survivors, composed of middle level managers, and lower level employees. To successfully conduct the research, random sampling method is going to be utilised. Random sampling is a probability sampling method, whereby the elements in the population have some known chance or probability of being selected as a sample subject (Sekaran, 2003). For this research, respondents for the study are going to be randomly selected within the Manufacturing Industry. The advantage of using this sampling design is that it has the least bias and offers the most generalisability. However Sekaran (2003) argued that, because every person or item in a population has to be listed before the corresponding random numbers can read, this method is very cumbersome to use for large populations and therefore the researcher is going to focus on three to four Manufacturing Industries within the Buffalo Municipality.

PRELIMINARY FINDINGS

Preliminary findings reveal that if the organizations want to reap the fruits of downsizing it should take care of the survivors. Organizations should ensure that the process of downsizing is fair and justified. They also need to effectively handle the anxieties of the survivors and help them in every aspect to adjust to the new situation. Organizations need to actively communicate their future plans to the survivors and give every possible support, sometimes by hiring external experts in psychological aspects.

CONCLUSION AND ORGANIZATIONAL IMPLICATIONS

Appelbaum and Donia (2001) however, noted that not only people leaving the organization are affected, but also those who are left behind (survivors) creating a new psycho-social problem, “survivor syndrome”. Survivors

become self-absorbed, risk averse and narrow-minded. These will lead to low commitment and morale, overall damaging the organization (Burke & Nelson, 1997).

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INTEGRATED FRAMEWORK FOR MEASURING CORPORATE SUSTAINABILITY, BRAND VALUE, COMPETITIVENESS AND FINANCIAL PERFORMANCE.

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ABSTRACT

Many business executives have asked themselves over the years, how would a greater focus on economic, environmental and social responsibility affect the performance of their company? Conversely, the lack of a single, widely accepted measurement tool for corporate sustainability performance, brand value, competitiveness and their effect on firm's performance continues to be a concern. This paper presents a framework that can measure the impact of corporate sustainability on financial performance of firms by investigating the effect of triple bottom line commitments (i.e. economic, social and environmental) on brand value/reputation, competitiveness and firm's financial performance. The paper will further establish how the integrated forces of economic, social and environmental issues drive brand value/reputation and business competitiveness until the link to profit is clear

INTRODUCTION

An increasing number of sustainability practitioners, managers, business executives and investors recognize the importance of developing a universal tool that can measure the relationship between corporate sustainability performance and business success. In recent times, various approaches have been used to measure, monitor and assess the progress companies are making towards sustainability including sustainability surveys, sustainability metrics, sustainability indexes, performance indicators, investors criteria, accountability reporting, benchmarking etc. None of these methods represent a clear single widely accepted tool that can be used by all industries or by all the companies within the industry. Hence, the lack of a single, widely accepted measurement tool for corporate sustainability performance, brand value, competitiveness and their effect on firm's performance continues to be a concern.

MEASURING CORPORATE SUSTAINABILITY AND BRAND VALUE/REPUTATION

Background – Dimensions of Corporate Sustainable Development and Measures of Business Success

Given that both sustainability performance and business success are multi-dimensional concepts, it is very difficult to develop a robust generally accepted measure for corporate sustainability out of the direct relationship. A more immediate practical measure will be by considering the linkages between corporate sustainable development and measures of business success. Studies have found that brand value and reputation are strongly influenced by almost all sustainable development factors (Sustainability, 2001).

In this paper, triple bottom line commitment (TBL) will be considered as the sustainable development initiative as in Table 1 and brand value/reputation and competitiveness as drivers of financial performance as in Table 2 respectively. This paper will establish how the integrated forces of economic, social and environmental issues drive brand value/reputation and business competitiveness until the link for profit is clear. It will further explore and determine why brand value/reputation is preferred instead by considering ten dimensions of sustainable development performance and ten measures of business success. According to (Sustainability, 2001) brand value/reputation is positively linked to six sustainable development initiatives such as, socio-economic development, ethics, values and principles, accountability and transparency, engaging non-business partners, Human rights and environmental process focus.

Table 1: Ten Dimensions of Corporate Sustainable Development Performance

A. Governance:	1.	Ethics, Values and Principles
	2.	Accountability and Transparency
B. General	3.	<u>Triple Bottom Line Commitments</u>
C. Environment	4.	Environmental Process Focus
	5.	Environmental Product Focus
D. Social- Economic	6.	Social Economic Development
	7.	Human Rights
	8.	Work Place Conditions
E. Stakeholder Engagement	9.	Engaging Business Partners
	10	Engaging Non- Business Partners

Source: (Sustainability, 2001: 05)

Table 2: Ten Measures of Business Success

A. Financial Performance	1.	Shareholder Value
	2.	Revenue
	3.	Operational Efficiency
	4.	Access to Capital
B. Financial Drivers	5.	<u>Customer Attraction & Competitiveness</u>
	6.	<u>Brand Value and Reputation</u>
	7.	Human and Intellectual Capital
	8.	Risk Profile
	9.	Innovation
	10.	License to Operate

Source: (Sustainability, 2001: 05)

The objective of this paper is demonstrated in the figure 1 below, illustrating the theoretical framework of the links between corporate sustainable development performance and economic success.

Figure 1, further illustrates that successful management of sustainability performance is achieved only if the management of environmental, economic and social issues is in line with increased, Brand value/reputation, competitiveness and economic success. In summary sustainability performance can be interpreted very broadly as overall performance in managing the links and causal relations as above.

Although many studies (mostly correlated-based) have been performed on the relationship between environmental and economic performance only a few take a closer look at the above link. To date, only some partial aspect of the relationship between sustainability performance, business competitiveness and firm performance have been studied from a theoretical as well as an empirical perspective (Lankoski, 2000, Margolis and Walsh 2003; Pearce 2003; Schaltegger and Burritt 2005; Schaltegger and Synnestvedt 2002; Wagner and Schaltegger 2003, Walsh, Weber and Margolis 2003; Ziegler, Rennings and Shroder 2002).

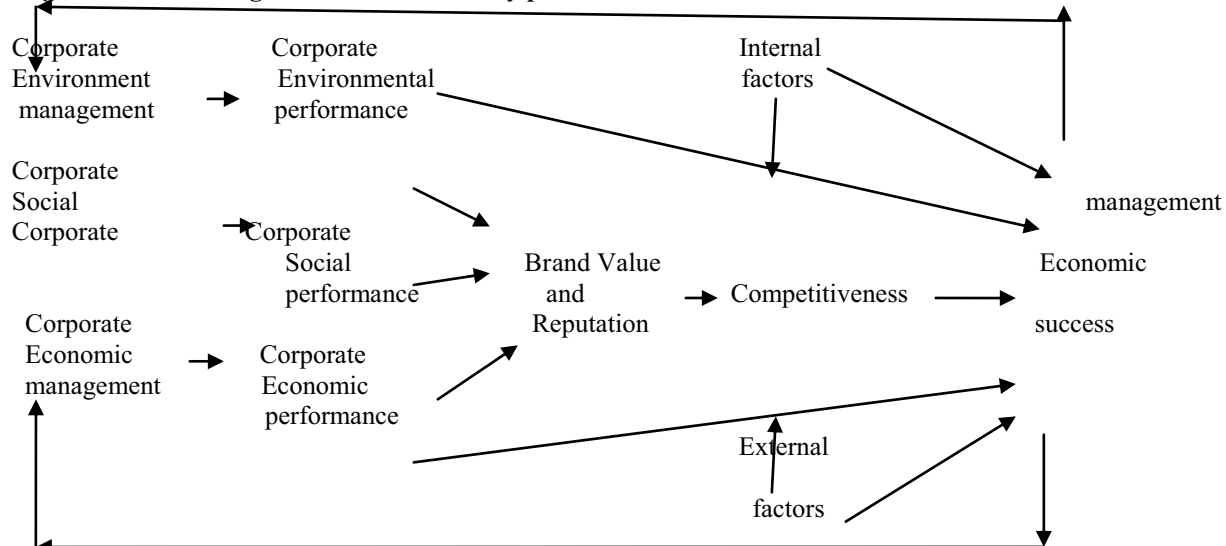
LINKAGES BETWEEN TRIPLE BOTTOM LINE COMMITMENTS, BRAND VALUE/REPUTATION

Corporate Economic Performance, Brand Value and Reputation

Economic performance is measured using financial performance and their drivers (Brand value and Reputation). This paper will identify and develop the impact of brand value and reputation on the following financial measures:

- Shareholder Value
- Revenue
- Operational Efficiency
- Access to Capital

Figure 1: Management of sustainability performance



Source: (Schaltegger, 2006:04)

Shareholder Value and Brand Value/Reputation

It is often assumed that brands represent an asset as well as a source of current and future earnings and cash flows for a firm. As such, the value of the brand or brand equity should manifest itself in the market value of the firm and thus have an impact on shareholder value. Typically brands are considered intangible corporate assets. They possess economic value and create wealth for the company's shareholders (Aaker, 1996; Doyle, 2001; Lewellyn P.G 2002; Balmer and Greyser 2003; Schaltegger and Wagner 2006). One purpose of marketing is to create and manage market-based assets to deliver shareholder value (Srivastava, Shervani and Fahey 1999). Brand equity influences sales growth and operating profit margins and is one of the factors that drive value (Doyle, 2001; Alsorp and Fombrun 1999; Lewellyn P.G. 2002; Goldberg, Cohen and Fiegenbaum 2003). One method of determining shareholder value is by measuring the market-to-book ratio (Day and Fahey, 1988). A firm creates shareholder value by ensuring that the warranted market value of the equity capital invested in a firm by its shareholders exceeds the book value of the equity (Balmer and Greyser 2003; Schaltegger and Wagner 2006). According to these authors a firm creates value when the market-to-book ratio is greater than 1.0, destroys value when the market-to-book ratio is less than 1.0, and sustains value if the market-to-book ratio is 1.0. However, companies with strong brands perform higher than industry averages.

Another method of measuring shareholder value is Total Shareholder Return (TSR). Investors often regard TSR as the single most important measure of corporate performance. Total Shareholder Return = Dividends + Share Price Appreciation. Surplus cash drives dividends and share price appreciation. A company's ability to drive up share prices depends on its ability to consistently generate surplus cash well into the future which is only possible with strong brands.

Third measure that can be used as an indicator for shareholder value is Earnings per share (EPS). EPS is a company's profit divided by the number of its outstanding shares. If a company earned \$2 million in one year, while having 2 million shares of stock outstanding, its EPS would be \$1 per share. However, well known

successful brands are often sold at premium prices with corresponding high profit margins. Higher profit margins could result in higher EPS.

Previous research shows that it is possible to obtain indications of changes in brand value and demonstrates that the performance in terms of strength and stature of a brand may have significant impact on the value of a firm. These findings are consistent with the premise that the purpose of marketing is not only to create value for the company's customers but that this has to result in creating value for its owners (Shareholders) as well. A reliable instrument should make it possible to hold marketers in general and brand managers in particular, accountable for the financial implications of their strategies, especially in terms of shareholder value.

However, focusing more closely on monitoring brand equity and shareholder value in a frequent and consistent manner will forge a much-desired closer cooperation between marketing and finance professionals within a firm. Thus, brand value and reputation are drivers of shareholder value. The quantity of sales, profit and debt –equity ratio are determined by the product brands. Brand value and reputation is the corporate assets that magnet or attract customers, employees and investors (Alsorp and Fombrun 1999; Lewellyn P. G. 2002; Goldberg, Cohen and Fiegenbaum 2003). Thus they have the ability to impact positively on the company's brand book value.

Revenue and Brand Value/Reputation

Many authors propose that the revenue premium a brand generates, compared with that of a private label product is a simple, objective and managerially useful product-market measure of brand equity. The concept of brand equity has been widely discussed in the marketing literature. Researchers such as (Aaker and Keller 1990; Goldberg, Cohen and Fiegenbaum 2003; Lewellyn P.G. 2002; Balmer and Greyser 2003), have written extensively about the concept of brand equity, how to build, manage and extend it. Brand equity is defined as the marketing effects or outcomes that accrue to a product with its brand name compared with those that would accrue if the same product did not have the brand name (Dubin, 1998; Keller, 2003). On the other hand, revenue premium is defined as the difference in revenue (i.e. net price * volume) between a branded good and a corresponding private label.

Sales are influenced by the marketing mix of both the brand and its competitors. Brand equity influences sales directly by means of consumer choice and indirectly by enhancing the effectiveness of the brands marketing efforts and insulating the brand from competitive activity. In turn, equity is created by the marketing mix of both the brand and its competitors and by the firm's previously existing strength from its corporate image, product line, research and development (R&D), and other capabilities. For example, Sony's equity arises from its superior products and marketing programs, company reputation and expertise. This equity makes consumers pay more attention to Sony advertising, enables better trade support and reduces Sony's vulnerability to competitors' product improvements and price cuts. Exogenous category characteristics, such as market size and perceived risk, also influence the level of equity that brands can achieve.

They pay dividends to shareholders and make R&D possible (Sustainability 2001:16). Changes to a company's revenue stream is due to changes to pricing or market share for existing products, access to new markets or sales of new products and services, which in turn is depended on higher brand performance

According to Sustainability (2002:17), a strong reputation for sustainable development can help a company differentiate its products, attract employees, customers and increase its revenue.

Operational Efficiency and Brand Value/Reputation

Operational efficiency is the ability of a company to turn inputs into productive outputs in a cost-effective manner. Operational efficiency can be achieved in two ways:

- (i) by minimizing cost (capital, operational and financing costs)
- (ii) Maximizing resource productivity by producing more for each unit of currency spent on employ
Capita and other expenses.

It is the key barometer of a company's current business health (Sustainability 2001; Gradzol J.R, Gradzol C.J and Rippey S.T. 2005). Some improvement in operational efficiency directly affects the bottom line resulting in better financial performance. Positive workplace atmosphere is the strongest driver of employee productivity, substantially helping companies reduces their marginal operating costs. In those areas where sustainable development initiatives have a bottom- line cost, for instance investment in socio-economic development and the promotion of human rights, firms may decide to pursue them under the assumption that they will increase firm value in other areas (like, reputation, license to operate and risk profile). Application

of these criteria to sustainable development investments often shows to be attractive, particularly if one includes the value of intangibles such as the impact on reputation (Sustainability, 2001: 18). Thus a company with high reputation and product brands provides better working conditions for its employees, engages in R&D investments and enjoys higher operational efficiency that translates to financial performance.

Access to Capital and Brand Value/Reputation

The importance of building a strong brand as a primary goal of many organizations has been recognized in the marketing literature in recent times (Keller, 2001; Hoeffler and Keller 2002). The aim of this view is that an organization that builds a strong and successful brand will create stronger earnings, attract investors and will be more stable in its marketplace performance. Brand performance can also be seen in the brand achieving the organization's established objectives for it in the marketplace. As such brand performance is defined as the relative measurement of the brand's success in the marketplace (O'Cass and Ngo 2007b). They are capable of bringing increased and remarkable change on the company's brand book value. A highly reputable company often times has high current ratios (excess of current assets over current liabilities).

Thus there is a positive relation between economic performance and brand value/ reputation as evidenced from the above analyzed literatures (Sustainability, 2001; Goldberg, Cohen and Fiegenbaum 2003).

Corporate Social Performance, Brand Value and Reputation

The following are the social actions a company may embark on which can increase brand value and translate to financial performance:

- Ethical behavior has been shown to build stakeholder trust, a necessary component of a strong corporate reputation and firm's financial performance. Similarly unethical behavior has been shown to destroy both trust and reputation. A DePaul university study has found that the average reputation score for a company with a strong commitment to business ethics was between 4.7% and 6.7% higher than for companies without this commitment (Verschoor C. 1999)
- Genuine community initiatives have been well documented to boost a company's reputation and increase firm's resources. A study found that 86% of consumers have a more positive image of a company if they see it doing something to make the world a better place (Cone Raper 1999; Sustainability, 2001; Lewellyn P.G. 2002). Merck's decision to donate Mectizan, the treatment for river blindness and help with its distribution has substantially improved the company's image and financial performance.
- External engagement particularly with opinion-forming NGOs can enhance and protect corporate reputation. The impact NGOs can have on firm reputation is one of their most powerful tools for influencing corporate behavior. Danish pharmaceutical company Novo Nordisk has used stakeholder engagement as a key part of its highly respected sustainable development strategy. The company believes that engaging with stakeholders over the years has given them a major input to their strategy for sustainable development and economic rationale (Novo Nordisk 1999)
- BP's (British Petroleum) efforts to eradicate human rights abuses, and the direct involvement of the chief executive officer (CEO) Sir John Browne, have built public trust in the company and helped it strengthen its reputation and firm's financial resources

Senior managers should believe that a given set of explicit management actions can lead to improved social performance, which will enhance the company's public image (reputation) and encourage customers to increase purchases (Esptein M and Roy M, 2001; Sustainability, 2001; Lewellyn P.G 2002). These increased purchases should then lead to improved long-term profitability which results to financial performance.

Corporate Environmental Performance, Brand Value and Reputation

Environmental performance to a greater or lesser degree is now an integral part of most commercial operations. The following sustainable development performance initiatives have strong positive impact on brand value/ reputation and financial performance.

- Environmental Process Focus:

- Environmental Product Focus:

Environmental Process Focus:

This is corporate environmental responsibility as it is most conventionally thought of. This is defined as the extent to which a company minimizes any adverse environmental impacts associated with its production processes, through for example, changes to materials, equipment or practices (Sustainability 2001:10). Generally companies which are environmentally conscious have good public image, and document substantial societal and shareholder value. A company's performance on this dimension could be based on:

- Its rating on a standard index (e.g. Innovest's EcoValue '21)
- Its rating based on a system specially constructed for a study (e.g. total toxic emission)
- Its record in introducing new processes that minimize environmental impacts.
- Its performance against industry benchmarks

Environmental Product Focus:

Superior environmental products clearly help firms build their brand value in that market (Sustainability 2001; Fombrun and Riel 2004). Ben and Jerry's and 'The Body Shop' international, is examples of companies that have built their reputation by producing and selling superior products in a value-led manner. The extent to which a company has embedded environmental principles throughout a product's life cycle, for example, by developing or re-designing its product and service portfolio to minimize adverse environmental impacts (e.g. product stewardship initiatives, design for the environment). A company's performance on this dimension is typically based on:

- Its record in introducing environmentally superior products and services and
- The life cycle performance of its products and services portfolio, its environmental footprint from production to disposal.

CORPORATE BRAND VALUE/REPUTATION, COMPETITIVENESS AND FINANCIAL PERFORMANCE

Brand Value/Reputation and Business Competitiveness

This relationship will introduce and establish the ability of brand value and reputation impacting on consumers' choice, cost of shares, market share and benefits of globalization on business competition and the overall financial performance of firms/companies. On the other hand, the market value of a company is largely dependent on the value of its brands. Branding is a market strategy for creating, nurturing and fostering the continual development of relevant and appropriate brand value propositions. It consists of the development and maintenance of sets of product attributes and values which are coherent, appropriate, distinctive, protectable and appealing to customers (Sustainability, 2001; Marc and Marie 2001; Schaltegger and Burritt 2005; Glodberg, Cohen and Fiegenbaum 2003). Brand strategy emphasizes the entrenched continuity and connectedness of the firm with its external environment. It enables firms to build reputation among its customers and other stakeholders and create, nurture and innovate on their market-based assets. In turn, market-based assets enables firms to nurture customer perceived brand value, brand equity and enhances its reputation. In this context brand may serve as a platform for innovative practices for enhancing firms' market-based assets such as reputation, trust from potential and existing customers. Branding is advantageous in the face of the challenge for creating capacity for continuous technological and innovative renewal within a firm. An established brand enables its owner to introduce innovative and new product offerings into the market with a better chance of success than otherwise would have been possible without an established and reputable market presence. Furthermore, an existing strong brand presents an opportunity for comparative assessment of any new offerings with firms' previous competence and capability and customers' trust in the offerings. This enables consumers to make confident purchase decisions about the product. It is very difficult, however, to separate brand and reputation in practice. A strong brand can also create attributes which are difficult for competitors to copy, providing a key source of immutable assets for the firm. Immutable association represents a strong source of intellectual property

as well as a source of sustainable growth for firms. In a customer-led –market underpinned by symbolic consumption, branding and reputation are significant realities that influence customer decision-making. Brand value and reputation will help a company to be globally competitive which is important for current survival and future development of a company.

Business Competitiveness and Financial Performance

According to the sustainability balanced scorecard approach, environmental, economic and social issues can influence the following five different basic business perspectives that are driven by brand value/reputation, business competitiveness and financial performance (Schaltegger and Dyllick, 2002; Lewellyn P.G 2002; Furman, Porter and Stern 2000; Schaltegger and Wagner 2006).

- Market effect (e.g. effects on competitiveness of the company in the market such as higher willingness to pay, increased market shares, strong customer binding etc)
- Direct financial effects (e.g. fines, penalties, charities etc)
- Effects on business and production processes (e.g. lower production cost, decreased purchasing costs because of material and resource savings etc)
- Effects on learning and organizational development (e.g. in this perspective, successful sustainability management creates an organizational culture of sustainability process which improve social, environmental and economic performance simultaneously and is expressed in for example, more motivated staff, increased innovation rate, less fluctuations etc)
- Non-market effects on business performance (e.g. less resistance from neighbors to production sites, strikes, administrative resistance to receive allowances, political resistance etc)

OUTLOOK

The theoretical as well as empirical evidence presented in this paper suggests that brand value/reputation and business competitiveness are good measures of corporate sustainability performance. The triple bottom line commitments (economic, social and environmental) comfortably drive brand value/reputation, competitiveness which in turn translates to financial performance. A model characterized of the above linkage will be developed and tested by employing qualitative and quantitative data collected within 57 constituent companies of JSE Socially Responsible Investment (SRI) index. The data collected will be analyzed by mode of test statistics and factor analysis. The result of the pilot study prior to this paper however, agreed with the conclusion that corporate sustainability will tend to economic success if properly managed and measured through the pathway of brand value/reputation, competitiveness and firm's financial performance.

CONCLUSION

By carefully identifying and articulating the drivers of financial performance and measuring and managing their broad effect on economic, social and environmental, managers can make a significant contribution both to their company and to the society. For sustainable development performance to become truly integrated into business decision and economic success, a systematic sustainable development performance measurement is essential. Companies that not only identify and communicate key issues and value drivers but also clearly prioritize economic, environmental and social sustainability issues can gain a competitive edge by proactively managing sustainable development performance.

Improved overall performance can only be achieved by setting sustainable performance targets that are consistent with the company's operating principles that can measure, report and if necessary adapt performance to these targets over time.

The result of the study and the model to be developed will among other things assist organizations to better understand how to gain competitive advantage, increase firm's performance and provide an economic rationale for organizations involvement in sustainable development.

Keywords: Corporate Sustainability; Triple Bottom Line Commitments; Brand Value/ Reputation; Competitiveness, Financial Performance.

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MANAGEMENT OF POST-PROJECT SERVICE RELATIONSHIPS

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ABSTRACT

The purpose of this research is to address the growing importance of services on the management of post-project business relationships in project marketing. Based on the literature review of different post-project service relationships, a framework for post-project service relationships development is provided along with a classification of four extreme post-project service relationship types. The focus of the research is in a customer lock-in type of post-project service relationship that is seen connected new business logics and sources of competitive advantage in project business. A qualitative case research from software project business is conducted and carefully analyzed in order to achieve empirical grounding of the theoretical models. To conclude, theoretical and managerial implications along with future research avenues on the management of post-project service relationships are given.

INTRODUCTION

The purpose of this research is to address an increasingly important issue in industrial marketing, management of post-project relationships based on service exchange. This subject is becoming manifested in project business, where companies are moving away from concrete project offerings to complex industrial products and systems (COPS) or integrated solutions (Brady, Davies & Gann, 2005; Davies, Brady & Hobday, 2007). These products require various types of after delivery services (Artto, Wikström, Hellström & Kujala, 2008; Cova, Ghauri & Salle, 2002; Filiatrault & Lapierre, 1997; Kumar, Markset & Kumar, 2004) and thus, companies are able to shift downstream into high-value added services (Brax, 2005; Davies, 2004; Oliva & Kallenberg, 2003; Wise & Baumgartner, 1999).

The focus of this research is in the management of long-term customer relationships, which evolve from project supply relationships to service supply relationships, after the project has been completed. The classification of buyer-seller relationships from Campbell (1985) is used as a stepping stone and applied to service relationships in order to create a managerially purposeful classification of different post-project service relationships. Most of the attention is however directed towards a specific post-project service relationship, based on project deliveries with proprietary technology and related post-project services. It is argued, that this relationship type will give rise to new business logics and sources of competitive advantage in project business. In order to validate our point, a case study from software project business is conducted and carefully analyzed.

This research contributes to the project marketing research (e.g. Cova, Mazet & Salle, 1996; Skaates & Tikkanen, 2003; Skaates, Tikkanen & Lindblom, 2002) on post-project relationship management, but builds on the literature of project-related services (Pekkarinen, Salminen & Jalkala, 2008; Skaates & Cova, 2005; Tyler, Patton, Mangiello & Meyer, 2007) and integrated solutions (Brady, Davies & Gann, 2005; Davies, Brady & Hobday, 2007). This research first builds on the literature of project marketing, relationship discontinuity and post-project services. Then a framework for post-project service relationships development is provided along with a classification of four extreme post-project service relationship types. After the case study, empirically grounded conclusions are drawn along with implications for managers.

PROJECT MARKETING AND RELATIONSHIP DISCONTINUITY

Project marketing is a rather young offshoot of industrial marketing as the first publications date back to the early 1990s (Bansard, Cova & Salle, 1993; Hadjikhani, 1996). Regardless of its short history, project marketing has distinguished itself as a separate marketing discipline (Skaates, Tikkanen & Lindblom, 2002). The need to differentiate post-project business relationships from other buyer-seller relationships in business marketing is derived from the project business special characteristics (Cova, Ghauri & Salle, 2002; Skaates, Tikkanen & Lindblom, 2002; Skaates & Tikkanen, 2003) often referred as the DUC-model of project marketing (Mandjak & Veres, 1998) and especially from the problem of relationship discontinuity (Hadjikhani, 1996; Skaates et al., 2002). Relationship discontinuity, likewise relationship management in project marketing, includes two often interrelated dimensions (Hadjikhani, 1996; Mandjak & Veres, 1998). It can be understood broadly as the lack of transactional relationships, i.e. irregular demand for project sales. In a more narrow sense, discontinuity relates to the long term development of a specific customer relationship and to the time period between two individual project assignments, when there might not be any economic transaction. When discontinuity is considered at the level of a long term customer relationship, time period in between the project assignments is referred as the “sleeping relationship” (Hadjikhani, 1996).

In project marketing the management of sleeping relationships, i.e. social exchange relationships between projects, is considered important, because they are seen to affect the opportunities of future project sales (Mandjak & Veres, 1998). However, since the change in the industrial markets towards high-value added services, the essence of discontinuity is evolving. Project marketers have now more tools available for managing these relationships, because customers are becoming more engaged with various after project delivery services. Given the importance of services for project business, more research attentions should be directed towards innovative service combinations in project marketing (Artto, Wikström, Hellström & Kujala, 2008).

POST-PROJECT SERVICE RELATIONSHIPS

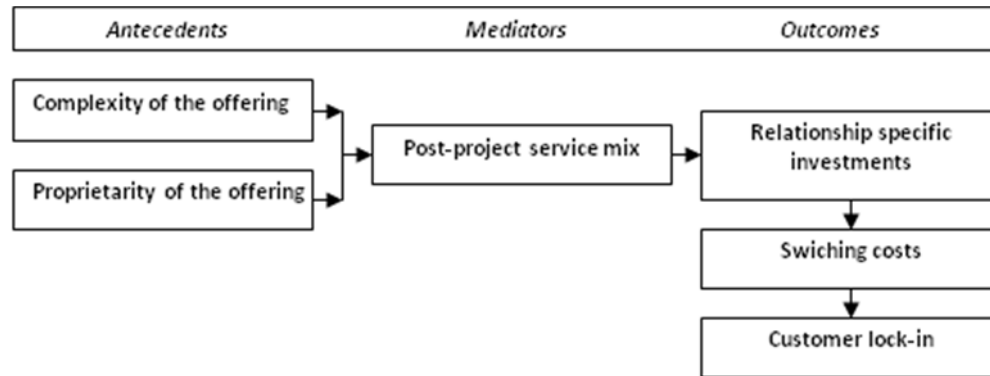
Post-project services are becoming an integral part of project offerings as the complexity of projects is increasing (Brady, Davies & Gann, 2005; Davies, Brady & Hobday, 2007). These services can include e.g. maintenance, support, customization and new R&D-activities (Artto, Wikström, Hellström & Kujala, 2008; Cova, Ghauri & Salle, 2002; Filiatrault & Lapierre, 1997; Kumar, Markset & Kumar, 2004). Services are changing the nature of post-project business relationships, which were for long considered solely as social sleeping relationships (Hadjikhani, 1996). With post-project service relationships we refer to business relationships that have evolved from project supply relationship to service supply relationships after the project has been completed. Even though there is plenty of research revolving around project-related services (Pekkarinen, Salminen & Jalkala, 2008; Skaates & Cova, 2005; Tyler, Patton, Mongiello & Meyer, 2007), different business service categorizations (Mathieu, 2001; Wise & Baumgartner, 1999) and influence of services on project business (Artto, Wikström, Hellström & Kujala, 2008), there is a lack of research on different service relationship types (Mathieu, 2001; Stremersch, Wuyts & Frambach, 2001). This research attempts to overcome this flaw by introducing a framework for analyzing post-project service relationship development. Further on this framework is connected to a classification of different post-project service relationship types.

Framework for post-project service relationship development

Based on the literature review on different post-project service relationships (Filiatrault & Lapierre, 1997; Kumar, Markset & Kumar, 2004; Stremersch, Wuyts & Frambach, 2001; Wynstra, Axelsson & van der Valk, 2006) we propose a framework for relationship development consisting of antecedents, mediators and outcomes. As illustrated in the figure 1, two groups of variables are identified as antecedents of this model; complexity and propriety of the offering. Complexity is created by the know-how demands for a customer company and a seller company, as well as the variety and number of actors involved (Mandjak & Veres, 1998). It also refers to the level of customization the system requires when supplied to the customer (Hoch et al., 1999). Propriety of the offering has to do with the degree of proprietary technology it contains (Teece, 1986; West, 2003). As a mediator variable we identify post-project service mix that refers to the different service combinations available

for the supplied system. These services can include e.g. maintenance, support, customization and new R&D-activities (Filiatrault & Lapierre, 1997; Kumar, Markset & Kumar, 2004). The last group of variables are the outcomes. It is argued that the use of post-project services, such as R&D-activities, can result in relationship specific investments (Lohtia & Krapfel, 1994; Wilson, 1995) that are non-retrievable, leading thus to high switching costs when changing to a competing supplier (Porter, 1979). Customer lock-in is achieved when the customer has no other choice than to commit to the relationship in absence of alternatives (Greenstein, 1997).

Figure 2: A framework for post-project service relationship development



Classification of post-project service relationships

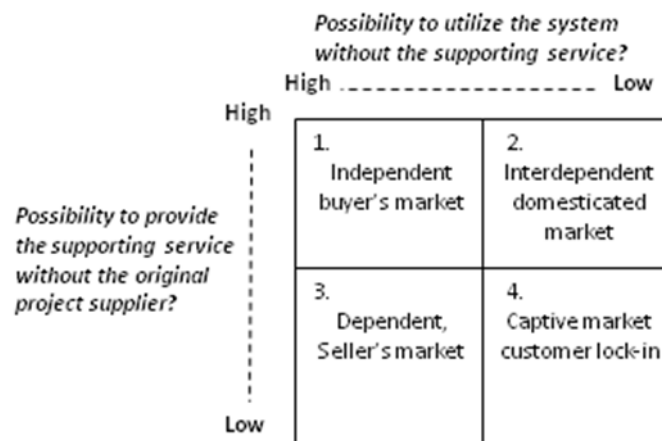
In the figure 2 the buyer-seller classification of Campbell (1985) is linked to the previous framework of post-project service relationship development. We classify post-project business relationships into four extreme types, by asking two important questions in project business. The first question of the project supplier to consider, when it is planning to broaden its offer downstream into maintenance services, is *the possibility of the customer to use the system without a supporting service?* This question relates to the complexity of the offering. If the product offering is simple enough, it is unlikely that the customer will pay extra for a service. In this case the supplier has to increase complexity of the offering with e.g. high technology features. The second question for the supplier to think, is *the possibility to provide the supporting service without the original project supplier?* This question has to do with the degree of proprietary technology of the offering. If the offering is built on too general technological solutions, it might be possible for the customer to get the service from a competing service supplier. In this case it would be beneficial for the supplier to increase the share of proprietary technology in the offering, which would prevent the customer from switching to competing suppliers. Figure 2 presents four extreme post-project relationship types. In the 1st segment the system supplied as a project does not require post-project services. However, if the customer chooses to acquire supporting services, it can include in the bids also competing suppliers, thus the buyer is independent. The 2nd segment describes a situation where the system requires supporting services, but the customer can choose the supplier. In this situation the parties are interdependent, because they need each other's equally. In the 3rd segment the system supplied as a project does not require necessarily post-project services, but if the customer chooses to acquire them, it has no other choice than to obtain them from the original project supplier. Because of this, it is labeled as the seller's market. The focus of this research is in the 4th segment of the figure, which deals with captive market and customer lock-in type of relationships. It is argued, that this specific relationship type will give rise to new business logics and sources of competitive advantage in project business, as the effect of relationship discontinuity becomes less significant.

METHODOLOGY

The methodological choices of this research are guided by the basic aim of expanding existing knowledge evolving around management of post-project business relationship with innovative services in the context of software project business. Due to the novel nature of this phenomenon and the complexity of project business in particular, case study has been chosen as the method of this inquiry. Since this research deals with a relatively new area of study in which the researcher has only little or no control over the events that are occurring in a real-

life context, a case study is a very appropriate method (Stake, 1995, pp. 435-454). In this research a single case study was chosen as the empirical setting (Yin, 1994). All the data was collected solely by the author specifically for the purpose of his research interest. The main data source through which the post-project service relationship management will be described consists of semistructured interviews (Kumar, Stern & Anderson 1993) of the employers of a project supplier company, called here the Alpha, and its customer company referred here as the Pioneer. The choice of informants was premised on the principle that information is best elicited from people who have knowledge of the phenomenon and who have been involved with post-project services. Qualitative data analysis was employed in order to thematize the material (see Miles & Huberman, 1984). Documents, minutes of meetings, industry reports and company visits were used to triangulate the respondents' answers, as suggested in literature (Patton, 1987). In practice, data triangulation was first used to compare the different perspectives presented by each of the interviewees and, subsequently, to compare the interviews with other sources, such as industry reports, in order to validate our observations and interpretations. The results are presented in the next section. The identities of the companies or the respondents are not revealed for reasons of confidentiality.

Figure 3: Classification of post-project service relationships



APPLYING POST-PROJECT SERVICES TO ACHIEVE CUSTOMER LOCK-IN

The purpose of this case is to describe a specific relationship type in software project business, often referred as the hosting relationship, which is seen connected new business logics and sources of competitive advantage in project business. This relationship belongs to the 4th segment of the figure 2, which deals with captive market and customer lock-in. We will analyze this relationship by linking the antecedents, mediators and outcomes of figure 1 to the quotations of the interviews.

Alpha is the system supplier company of the case description. Alpha focuses on developing web-technology based systems and digital user interface design. The level of customization in a typical delivery is on average 50 percent, which means that half of the offering is part of the core product and the other half needs to be customized based on customer requests. The main product of Alpha and also the cornerstone of exchange in the case description is a content management system (CMS), called here as the AlphaWeb. An integral part of Alphas total offering are the after delivery services such as customization, development, maintenance and support functions. Actually a great majority of the customers have a maintenance and support contract with Alpha. Thus Alphas delivery projects can be categorized as turnkey plus projects and to represent the enterprise solutions of software industry (Hoch et al., 1999). The post-project service relationship under scrutiny concerns Alpha and its major public administration customer. It is called here the Pioneer, because it was one of the first municipalities in Finland that started to develop internet based services for its citizens. Next the findings of the case research are analyzed

Antecedents. The complexity and the degree of proprietary technology in the project offerings made it possible for Alpha to create a long-term business relationship with its customers. This is demonstrated by the following statement from the sales manager of Alpha:

“There are a bunch of companies offering same kinds of products and services like we do, but changing the supplier is extremely difficult. I have used a metaphor, that if you are deep in the customer’s information systems or internet services, it is harder for customer to end the relationship than it is to end a marriage, where the term of notice is only six months.”(Alphas sales manager)

The importance of post-project services for Alpha was becoming manifested as the focus of the business exchange was moving downstream into high value-added services. Alpha’s sales manager brought out this in the interview:

“Basically this industry is starting to resemble the paper machine industry. It’s like they produce a paper machine and we supply a large internet service. For that we get a lump sum of money and after that starts the support, maintenance and development services.”(Alphas sales manager)

Mediators. In order to provide the widest possible post-project service mix for customers, Alpha educated its project managers to act as consultants between the company and the customer. It was understood that the success of Alpha was dependent on the significant sales margins that complex post-project service offerings provided. This comes clear from the interview of the Alpha’s leading application designer:

“It is part of our unwritten guideline and success that project managers have known their customer’s situation perfectly. So, they have been able to offer services, such like development and further development services and played the role of a consulting person...It has been our strength, as it builds the size of the delivery, and then we are not just selling licenses anymore” (Alpha’s leading application designer)

Outcomes. Customer lock-in was achieved by encouraging customers to participate in post-project service development requiring investments that were non-retrievable because of the proprietary technology. It was evident that the more the supplied system was customized to specific customer requirement the more dependent the customer was on Alpha. This was especially clear in the case of the Pioneer, which had invested a lot on product development and customization. This is demonstrated by the following statement from a project manager of Alpha and from a project manager for Pioneer’s development office:

“It is true, that the more they have done developmental work, the more interdependent to the product they have become. Let’s think about Pioneer for example, they have custom build functions in their CMS that no one else has. For example they have a function that allows people to draw a plan for a site, which is a professional tool, but also a service for citizens. If Pioneer wishes to change its CMS supplier, it has to include this function in the tender invitation. As a result they would need to develop the same function again with the new supplier, which would practically be a waste of money.”(Alphas project manager)

“It would be pretty difficult to change AlphaWeb to another system at this point. In that case we would have to build again all the extra features that we have created over the years. I don’t even want to calculate how expensive this would be.”(Project manager for Pioneer’s development office)

CONCLUSIONS

The purpose of this research was to address an increasingly important subject in project marketing, management of post-project relationships based on service exchange. In order to set the stage for the research, a short introduction to project marketing and management of discontinuity was given. Literature on project-related services and post-project service relationships was also briefly reviewed. The main achievement of this research was the framework for post-project service relationships development and the classification of four extreme post-project service relationships. Focus was directed to one special post-project relationship type that deals with captive market and customer lock-in. In the empirical part the theoretical framework was applied in order to analyze this relationship, often referred in software project business as the hosting relationship.

From the literature review it can be concluded that post-project service relationships have drawn far less attention than they demand. More research should be directed to the theoretical aspects of service relationships,

such as classifications and development models. Evidence from the literature is convincing; companies are moving into downstream value-added services (Brady, Davies & Gann, 2005; Davies, Brady & Hobday, 2007), which create new types of post-project service relationships demanding detailed management attention.

The case research from software project business pinpointed the importance of post-project services for a software project supplier. More precisely it showed the importance of long-term customer relationships, achieved through wide post-project service mix based on proprietary technology and complex project offerings. Alpha, the case company, used highly educated project managers that approached customers as consultants prepared to solve their problems with extensive post-project service mix.

In the future the framework for post-project service relationship development and the classification of post-project service relationship types suggested in this research need to be further studied and analyzed in order to draw any generalizations. The role of this paper was to open up new research avenues in project marketing and project-related services discourse.

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IS CRIME PREVENTION THE MOST IMPORTANT OF THE FUNCTIONS OF THE CRIMINAL JUSTICE SYSTEM? A CASE STUDY OF NIGERIA AND SOUTH AFRICA

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ABSTRACT

Crime is a complex phenomenon that cannot be examined, described and analysed easily. Nevertheless, crime is a threat not only business and individual existence, but to national security. This paper ventures to test among others, the hypothesis, that crime prevention is the most important of the functions of the criminal justice system. The paper adopts a qualitative research approach, comparing two African countries.

In the totality, twenty crime prevention practitioners in the criminal justice systems of Nigeria and South Africa were interviewed for the purpose of data gathering. This paper becomes more relevant, when one considered that hitherto, the research opinions of academics have not had much influence on the crime prevention policies of these two African countries. Worse still, criminal justice efforts have consistently failed in Nigeria and South Africa because policy makers over the years rely on common sense; when the populace agrees with a criminal justice research findings, such findings are said to be obvious and when they disagree with such findings, they view the findings as unscientific, because their common sense told them so. This paper concludes that if ever possible to do; crime prevention will remain the most important of all the functions of the criminal justice systems.

INTRODUCTION

Is there anybody in today's world that enjoys criminality? Marais (2008) aptly observed that even the criminals do not want to become victims of crime. In the 2009 budget of Nigeria it was estimated that the government was to spend approximately N67 billion on safety and security (roughly R3, 339.304.842 in the South African currency) for that fiscal year and whereas in South Africa, despite the huge budget on the criminal justice system, the number of convictions has shown a downwards trend and has dropped by 23% since 2003. This trend was attributed to the inadequacies in case preparation by both the police and the prosecution, (Trevor Manuel 2009:61)

Notwithstanding the daily costs and expenditures on crimes, there is an undoubted daily increase in the crime rates globally. PJ Van der Walt, Cronje & Smit (1994:116), noted that crime is not something separate from the community, neither is it something that threatens the community "from outside". Crime, whether violent or non violent has negative consequences on any individual, people or nation. It delays the economic and cultural developments of a nation. It creates psychological imbalances on the individuals' dwellers of a community. The criminal justice of any nation cannot afford to be lukewarm, when it comes to crime fighting, (Conklin, 1995.1).

LITERATURE REVIEW

Kumar (2005:30) notes that an indisputable task before a person that embarks on a research is to acquaint himself with the body of knowledge in his area of research, through literature review. Silverman (2005: 295) notes that literature review is to demonstrate skills in library searching; command of the subject area; understanding of the problem; justify the research topic, design and methodology. Coetzer (2003:22) observes that literature review also provides opportunity for the researcher to identify some loopholes in the previous identical studies and to fill in the gap as new ideas and approaches not thought of before become apparent during various literature studies. There is no doubt that a lot have been done in terms of research by scholars in the area of crime prevention. Nevertheless, from the literatures, none of these scholars dwelt specifically, into testing the hypothesis whether crime prevention is the most important of the functions of the criminal justice system especially of Nigeria and South Africa in the present perspective

In this study, one has done a comprehensive literature study and adopted the qualitative approach; as these provides the much needed means to unravel and unknot the hypothesis already formulated. The value and advantage of embarking on a literature study, lies therein that some works have already been done and the results are available. One of the works or researches, recently done in the area of this research is that of Burger (2005) in his doctoral study at Tshwane University of Technology. Burger considers the 'strategic perspective of the role of the Police in combating crime'.

Burger (2005: 9) finds that 'crime combating is an all embracing concept; which can conveniently be sub-divided into crime prevention and policing'. Policing according to Burger (supra) includes all proactive and reactive activities of the police; which includes law enforcements, crime investigation, maintenance of public law and order but excludes crime prevention which he argues should be seen as a multi agency responsibility. Finally, Burger (supra) vehemently argues that the 1929 dictum of Sir Robert Peel that 'the primary responsibility of the police, is crime prevention is today not only anachronistic and archaic but can no longer be acceptable.

Another relevant study explored is that of Mofokeng (2006). Mofokeng in his study considers 'Perceptions on corruption in the crime prevention units of the South African Police Service in Pretoria Area'. He (supra) finds that the police, who supposedly ought to be crime fighter, are themselves corrupt. Mofokeng (2006: iii) in his study confirms that the anti corruption strategies targeted to remove corruption were not efficiently implemented. He also reveals that (supra) 'money and friendship' still play major role in determining the loyalty among the police officials'.

Notwithstanding the noticeable ineffectiveness in the fight against crime in Nigeria and South Africa, the criminal justice systems of the two countries cannot afford to abandon the fight. The 2005 World Bank report on 'securing better investment climate in Africa' identifies four inhibiting factors which influence potential investor on where to invest their resources. Crime is one of the four factors. The report noted that the rate of violent crime in South Africa is high by international standard. The report confirmed that though the economic productivity was a bit high and investment climate relatively favourable, private investment was relatively low, due to the significant impact of high cost of crime.

Furthermore, in a study commissioned in 2008 by the South African presidency to determine the impact of crime on small businesses in the country, it was revealed that the impact of crime on businesses goes beyond monetary costs. The high rate of violent crime coupled with enterprise actual experience of capital crimes such as robbery, murder and burglary creates opportunity costs for individual businesses and the wider economy. Due to frequent violent crime occurrence many businesses limit their operations, and were reluctant to expand. Review of the data emanating from the above study revealed that enterprises that have been victimised are not likely to increase their employment level, (information available online see: <http://www.gt.co.za>. Accessed, 20th April, 2010.

The impact of crime Vis a Vis business ventures in South Africa also came into limelight in the 2007 Grant Thornton International Business Report (IBR), wherein it was noted that 47 percent of the business owners that participated in the survey felt that fear of crime had a negative impact on their businesses. 58 percent of business owners in the townships and informal settlements reported losing customers. However, the response from the business owners located in the densely developed suburban areas was considerably lower at 37 percent, in the latter category the business owners enjoys the benefits of shopping centres/ business park security, with parking for customers or clients, and are thus unlikely to lose customers as a result of concerns about crime (South Africa, 2009).

The nature of frequently occurrence crime in Nigeria unlike South Africa is not violent but more or less economic crime. Section 40 of the Nigeria Economic and Financial Crimes Commission (Establishment) Act of 2002, defines economic crime as “the non-violent criminal and illicit activity committed with the objectives of earning wealth illegally either individually or in a group or organised manner thereby violating existing legislation governing the economic activities of government and its administration and includes any form of fraud, narcotic drug trafficking, money laundering, embezzling, bribery, looting and any form of corrupt malpractices, illegal arms deal, smuggling, human trafficking and child labour, oil bunkering and illegal mining, tax evasion, foreign exchange malpractices including counterfeiting of currency, theft of intellectual property and policy, open market abuse, dumping of toxic wastes and prohibited goods, etc.

Okonigene and Adekanle (2010) noted that the business online which suppose to be a blessing; as it brings a lot of opportunities in various dimension of life is fast becoming a source of discomfort and worry due to the atrocity being perpetrated though cyber crime in Nigeria, (Economic crime). The perpetrators of economic or cyber crimes in Nigeria are taken advantage of the tolerance of the business online, to defraud the unsuspected victims of millions of foreign currencies. These criminals used different schemes and devices to get over their potential victims. It might be in the form of presenting themselves as having goods on the sea and in need of an amount of money for clearance. It is also possible for the criminals to pretend to be in love with lovers they met online. Okonigene and Adekanle (2010) opine that many people have been duped of millions of dollars through this real but difficult to proof cyber crime in Nigeria. Unfortunately, the atrocity committed by these few (cabal) has damaging consequences on the dignity of the most populous country in Africa. It more than anything humiliates and injures the international business image of the country (Okonigene and Adekanle 2010).

However, the above scenario on the impacts of crime (violent and non violent) on the economic growth of a country is a global phenomenon. Gaviria, (2002) in assessing the impact of crime on the performance of Latin America small businesses discovered that 67 percent of businesses cited mentioned crime as an obstacle to undertaking business venture; this because crime led to a reduction in their economic performance and sales growth. Sloan and Bodapati (1998).observes that 23 percent of the US firms surveyed decided to cancelled or postponed the expansion plan plans because of their concern about likely victimisation.

The overall consequences of both violent and non violent crime in Nigeria and South Africa cannot be discussed exhaustively in a single piece. Suffice to say that in attempt to prevent crimes in Nigeria and South Africa, section 4 of the Nigerian Police Act, Cap 359 Laws of the Federation of the Republic of Nigeria 1990, provides among other things, the main functions or duties of the Nigerian Police Force thus:

...the prevention and detection of crime, apprehension of offenders, the preservation of law and order, the protection of life, property, due enforcement of all and regulations with which they are directly charged and perform such military duties within and without Nigeria as may be required of them by or under the authority of this or any other Act

On the other hand, but in the same token, section 205(3) of the 1996 constitution of the Republic of South Africa provide for the general duties of the South African Police Service thus:

...the objects of the police service are to prevent, combat and investigate crime, to maintain public order, to protect and secure the inhabitants of the Republic and their property, and to uphold and enforce the law.

In furtherance to the above and for efficiency in the role of crime prevention in the criminal justice system of Nigeria, section 272 subsection 1 of the 1999 constitution provides that the High court of a State shall have unlimited jurisdiction in both civil and criminal matters. The said section provides thus:

...the high court of a state shall have unlimited jurisdiction to hear and determine any civil and criminal proceedings in which the existence or extent of a legal right, power, duty, liability, privilege, interest, obligation or any penalty, forfeiture, punishment or other liability in respect of an offence committed by any person

Another relevant department in the criminal justice systems of Nigeria and South Africa is the prison services (as known in Nigeria) or correctional services (as known in South Africa). The main duties of either the prison

services or the correctional services are as enunciated by section 2 of the correctional services Act 111 of 1998 of the Republic of South Africa.

- (i) *Enforcing the sentences of the courts in the manner prescribed by this Act,*
- (ii) *Detaining all prisoners in the safe custody whilst ensuring their human dignity, and*
- (iii) *Promoting the social responsibility and human development of all prisoners and persons subject to community corrections.*

A combine reading of the above cited section 4 of the Nigerian Police Act, Cap 359 of the Laws of the Federation of Nigeria 1990 with sections 205 (3) of the 1996 constitution of the Republic of South Africa; section 272 subsection 1 of the 1999 constitution of the Republic of Nigeria with section 2 of the Correctional Services Act 111 of 1998 of the Republic of South Africa will give a clear indication of the summary of the functions of the criminal justice systems of Nigeria and South Africa as prevention of crime.

Therefore the purpose of this paper is among other issues discussed to test the hypothesis whether crime prevention is the most important of the functions of the criminal justice systems of these two countries. In order to effectively and efficiently do this task, one has adopted a qualitative research approach, comparing these two African countries. In all twenty crime-prevention professionals or practitioners were interviewed for the purpose of data gathering. This paper is important because, the war against crime and criminal justice issues around the world has consistently failed because criminal justice practitioners over the years relied on common sense (Hagan 2005:4).

Taylor and Bogdan (1998:3) noted that the concept of research approach presupposes the route a researcher will take in order for him to unravel the research questions (objectives and hypotheses inclusive). The way and manner in which a researcher attempts to unknot the research questions depends on his assumptions (hypothesis), interests and purpose of conducting a particular research. Taylor and Bogdan (1998:3).

There are different ways to categorise research approach. Two categories that immediately came to mind are those of Bless and Higson-Smith (2006:43). The duo authors noted that research approach will either be quantitative or qualitative. Bless and Higson-Smith (2006:43) opines that whereas, the former uses measurement to analyse different settings the latter adopts qualifying words or descriptions to explain settings.

MERITS OF ADOPTING QUALITATIVE APPROACH FOR THIS PAPER

The idea to adopt qualitative approach for this paper was reawakened by a research work earlier research titled: 'crime and crime prevention on public transport' co-sponsored by the consortium of research organisations such as Council for Scientific and Industrial Research (CSIR), Human Science Research Council (HSRC) and the Council for the Study of violence and Reconciliation (CSV), where it was stated that the exploratory nature of the aforementioned research and the need to ask the research participants their perceptive of crime and crime prevention in their respective areas mandated the choice of qualitative research approach.(Prudence, Willem and David, 2001:131).

Secondly, validity of research has to do with the difficulty(s) of whether the information collected is the true picture of what is being studied (McNeill and Chapman, 2005:10). It is important to reiterate here that there were no doubts whatsoever, that the respondents interviewed for the purpose of data collection in this paper are the actual role players designated by the constitutions of the Federal Republic of Nigeria and the Republic of South Africa, for crime prevention purposes, and this gives the assurance that the information gathered in this paper are reliable and valid; not only because of the standardised questions used but also because, the focus groups for the interview really appreciates the significance contributions of the outcome of this research for the policy makers of the two countries. In actual fact, the respondents encouraged the researcher to kindly make a copy of the research findings available to them at the end of the study. The practical experience of the officials (respondents) interviewed for this paper ranges from eight (8) to twenty (20) years in the criminal justice systems of the two countries.

An important way to measure the reliability of the outcome of a research, including this particular study is to take a hint from the suggestion of McNeill and Chapman (2005:10). This has to do with, the representativeness of the situation of group of people being studied. If we can comfortably say that the study of this group is typical of the other or that what is true of this group is also true of the other then we can generalise from what we have studied, (McNeill and Chapman 2005:10). As earlier claimed, the role of crime prevention in the criminal justice is customary to the two countries under review, (section 4 of the Nigeria Police Act, Cap 359, Laws of the Federation of Nigeria 1990 and section 205(3) of the 1996 constitution of the Republic of South Africa; Act 108 of 1996).

In the totality twenty officials (20) in the criminal justice systems of Nigeria and South Africa were interviewed. Three directors in the crime prevention unit of the South African Police Service (Pretoria; corner Hamilton and Pretorius street), two directors of not less than fifteen years experience in the Correctional Services office in Pretoria (Gauteng), though not initially included in our schedule but it later became important for us to include an interview with the chief director of Social Crime Prevention in Pretoria (Human and Social Research Council's building). Senior Magistrate in the criminal court division at the Chief Magistrate court Pretoria, senior officers in the office of the National Prosecuting Authority Pretoria and one director of a nongovernmental organisation actively involved in the crime prevention projects in Gauteng (Pretoria) were all interviewed for the purpose of data collection for this study.

For the same purpose, in Lagos Nigeria, the following people were interviewed; Two senior officers in the office of the director of public prosecution, Two Chief Magistrates in the criminal court division, Two directors in the offices of Controller of Prisons, State command, Two senior officers of the Nigeria Police Force and One director of a nongovernmental organisation actively involved in the crime prevention projects, and a director of social welfare and delinquency

In addition, one could not have adopted another research approach such as quantitative approach; as such approach laid more emphasis on data and statistical analysis. Whereas, most of the crimes committed in Nigeria and South Africa as revealed during the research interview were either; not reported, under reported or not recorded; this makes the crime statistics (where available) to be most unreliable for comparison. Shaw (1999:179) observed that unlike the quantitative research; which emphasises the usage of data and statistical analysis; in qualitative research the analysis and writing of research are represented essentially in words; thus the adoption of qualitative research approach.

Another important reason for choosing qualitative approach for this paper was the intention to do holistic study (Taylor and Bogdan, 1998:8) In order for us to holistically understand the challenges of the role of 'crime prevention in the criminal justice systems of Nigeria and South Africa', and the fact that one does not intend to pick or choose any particular crime for this study but to research into crime prevention holistically; it is thus most appropriate to use qualitative approach which supports, holistic research methodology. Taylor and Bogdan, (1998:8) noted:

...in qualitative methodology, the researcher looks at settings and people holistically; people, settings or groups are not reduced to variables, but are viewed as a whole"

Furthermore, in view of the fact that success in the war against crime in Nigeria and South Africa seems to be elusive, research methodology in the fight against crime must be crafty and flexible. Unlike a quantitative researcher who adheres to strict and tight rules, the qualitative social researcher is encouraged to be his or her own methodologist (Taylor & Bogdan 1998:10). There are guidelines and rules made to guide the qualitative researcher but never is the researcher made for the guidelines.

Henning and Smit (2004:3), agreed with Taylor and Bogdan (1998:9) thus:

...in a qualitative study the 'variables' are usually not controlled, it is exactly this freedom and natural development of action and representation that one wish to capture in this paper.

DEMERITS OF QUALITATIVE APPROACH

At this juncture, it is important to add that qualitative research approach should not be presented as an infallible method of research. Mckie (2002: 263) notes that, it will be naive to presume that the adoption of qualitative approach in research necessarily enhances participation to the same degree. This is because the participation of a number of people in research process does not necessarily ensure full participation of all. To guide against this, one has decided to limit the participation of each department in the crime prevention of the criminal justice systems of Nigeria and South Africa to two or three senior officials. Mckie (2002:263) also notes that qualitative research approach may lead to diminish in the sense of participation or ownership of the research process. This particular disadvantage of qualitative research approach was equally avoided as the respondents interviewed were not grouped together, but interviewed separately and one at a time.

INTERVIEWS FOR THIS PAPER

In order for one to properly unknot the questions and the hypotheses earlier set in this paper; one has used, standardised and unstructured interviews with the professionals in the crime prevention units of the criminal justice systems of Nigeria and South Africa. This was done to gain practical information, from these role players in addition to the theoretical information found during the literature study.

MERITS AND DEMERITS OF INTERVIEW UNDER QUALITATIVE

Some of the merits of using unstructured interview questions for criminal justice research as opined by Champion(1993:149) are that unstructured interview allows for natural conversation, as the respondents are likely to feel more at ease in responding to the interviewer's questions. It also allows for greater degree of elasticity and providence, (Hagan, 2005:174). Fortunately, these particular merits were optimised in this study. The respondents really appreciate the idea that informs this research and made themselves readily available in given detail answers to each of the questions under the hypothesis posited by the researcher.

One significant challenge of unstructured interview is that there could be incomparability and disparity of information derived from one interview and the other interviews. (Hagan: 2005:174) An example of such a disparity noticed in this paper is the question relating to 'how would you describe the crime situation in this country? The answer expected from the respondents has to do with 'crime rate being ' very high, high, low, or not sure' but some of the respondents (especially in South Africa) answered the question as 'very high, high and violent in nature' Another challenge of unstructured criminal justice interview is that some respondents may begin to waste the interviewer's precious time especially if they have little or nothing to add to the knowledge the interviewer's have already obtained from others, (Hagan, 2005:175).

Also, an undeniable setback for unstructured interview is the fact that a good amount of time is being spent to devise ways and manners to categorise and classify unstructured responses. One must be quick to say that this challenge was earlier identified, thus the idea of limiting the hypotheses to one. Whatever vagueness and uncertainty posted were made comprehensible through the subsequent answers to the questions under the hypothesis. Nevertheless, it is necessary to conduct this research interviews with the professionals in the crime prevention units of Nigeria and South Africa to find out about the various challenges they face daily, in achieving their constitutional duty of crime prevention. This made an unstructured, open ended and standardised interview inevitable.

Research interviews can be categorised into either standardised or depth interviews. The purpose of standardised interview is for data collection (Oppenheim 2001:66). This is normally done after the setting up of the research objectives and the formulation of the research hypotheses. The idea is that the respondents will be asked the same questions with the same meaning, in the same words, same intonation, and same sequence and in the same setting. This is why it is called a standardised interview, (Oppenheim, 2001:67). This researcher has adopted a standardised research method of interview because its characteristics are most appropriate for this paper. As

earlier alluded to in the course of this write-up, the respondents in this study, being the role players in the crime prevention units of the criminal justice systems of Nigeria and South Africa were individually asked the same set of questions, using the same words, same intonation, and same sequence and in the same setting.

On the other hand, the purpose of depth interview is not data collection but idea collection; such depth interview will consist of a 'continuous monologue by the respondent on the research theme, punctuated now and again by an 'uhuh, uhuh' from the interviewer', (Oppenheim, 2001:67). In conducting depth interview, the interviewer must from time to time interject the respondent in such manner as 'yes, yes, or I see, yes, do go on', (Oppenheim 2001:67). Depth interview has not been adopted as a research design because its characteristics run contrary to achieving the aims and objectives of this research.

The other two advantages of using an open ended interview over questionnaire are: it is believed that open ended interviews are more 'valid' in that, the interviewer has seen and talked to the respondents and has reported his findings in writing. It has been an opportunity to have a face to face interactions with the role players in the crime prevention units of Nigeria and South Africa and to have on the spot assessments of the happenings and challenges faced daily by these role players in an their efforts of ensuring a crime free society (Oppenheim, 2001:82), (Hagan 2005:174).

Ethical consideration is another limitation generally associated with social research especially, research design of interview (Hagan 2005:43, 44 & 67). The ethical consideration that the researcher must respect the rights of participation of the respondents, many a time may harm the data collection process, (Oppenheim, 2001:84). However, the right of the respondents to privacy (this is a constitutional right in Nigeria and South Africa and well respected in this study) and right to refuse to answer certain questions or not to be interviewed at all were respected (Kumar, 2005:214) These and other ethical issues were strictly adhered to in this paper.

All said and done, this paper is limited as far as the number and representativeness of the respondents are concerned. As much as one would have loved to include the victims of crimes and the offenders in the interview schedule, this could not be done due to issues of time and cost.

TESTING THE HYPOTHESIS

Figure 1 below expalins graphically the opinions of the respondents on how important the role of crime prevention is in the criminal justice system of Nigeria

Hypothesis 1.1 (Nigeria)

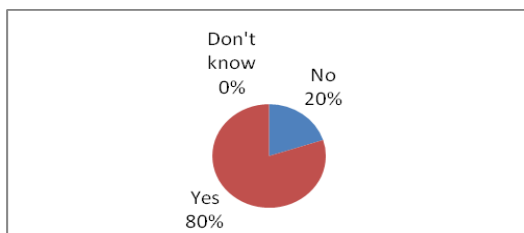


Figure 1.1: Crime Prevention is the most important function of the criminal justice system

Source: researcher own analysis

From the above Figure 1.1, one was able to confirm from 80 percent of the respondents interviewed in the criminal justice of Nigeria that crime prevention is the most important function of the criminal justice system. According to this group, all other functions of the criminal justice system are linked with the function of crime prevention. Prevention it was argued is better than cure. It was elaborated that when the police enforce law the target is to prevent crime. When the Magistrate adjudicates on the criminal matter the end result is to discourage criminality. When an offender is incarcerated by the prisons and taken away from the society he/she is most unlikely to commit another crime during the same period. When the Social worker counsels the youths and families about social –wrongs they tend to discourage deviant attitudes.

On the other hand, 20 per cent of the respondents disagreed and opine that crime prevention is not the most important function of the criminal justice system. It was contended, that to say that one function of the criminal justice system is more important than the other is to suggest that the other functions are less important.

On the other hand but in the same token, 70 % of the role players in the crime prevention of the criminal justice systems of South Africa agreed that crime prevention is the most important function of the criminal justice systems, they were of the opinions that prevention of crime will lead to a safe society and a safe society will ensure optimum realisation of individual and national goals. When crime is prevented according to the 70 % of the respondents the other functions of the criminal justice systems become secondary.

However, 20% of the people interviewed disagreed and argued that the most important function of the criminal justice system is to detect , investigate and successfully prosecute the offenders. Nevertheless, 10% of the role players in the criminal justice system of South Africa interviewed argued that all the functions of the criminal justice systems are as important as the other. The Figure 2 below represents the response of the respondents on our hypothesis one in South Africa.

Hypothesis 1.2 (South Africa)

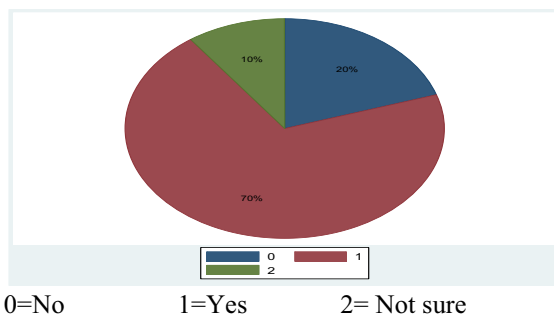


Figure 1.2: Crime prevention in the criminal justice system of South Africa
Source: researcher own analysis

From the above Figure1.2, one was able to confirm from 70 percent of the respondents interviewed in the criminal justice of South Africa that crime prevention is the most important function of the criminal justice system. The 70 percent of the respondents observed that crime level is high in South Africa because the function of crime prevention is almost left to the criminal justice system. It was elaborated that when the police enforce law the target is to prevent crime. When the Magistrate adjudicates on the criminal matter the end result is to discourage criminality. When an offender is incarcerated by the prisons and taken away from the society he/she is most unlikely to commit another crime during the same period. When the Social worker counsels the youths and families about social –wrongs they tend to discourage deviant attitudes.

On the other hand, 20 per cent of the respondents said, that crime prevention is not the most important function of the criminal justice system. It was contended; that any suggestion, suggesting that one function of the criminal justice system is more or less important will be misleading. Nevertheless, 10% of the role players in the criminal justice system of South Africa interviewed were not sure where to place the function of crime prevention in the criminal justice system.

Conclusively, it is important to stress at this point that every nation needs to creat and sustain law enforcement agancies to stimulate order in the society. Without order there will be disorder andanarchy and criminality will strive. The short argument in this paper as presented and confirmed by the crime prevention practitioners in Nigeria and South Africa is that (all things being equal) crime prevention will be the most important function of the criminal justice system.

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THE CHALLENGES OF PRESIDENTIAL LEADERSHIP IN ACADEMIC INSTITUTIONS

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ABSTRACT

United States which was once the leader in higher education for years has fallen behind. This paper examines the challenges of presidential leadership in academic institutions. It describes leadership as the most rare and precious human capital. Factors needed for effective leadership are presented with the principles of academic leadership. Categories of presidential leadership and presidential types are described. The paper presents the constraints to higher education including vote of no confidence on college presidents because of mismanagement, among other things. Major goal is to develop strategies that will return America to its rightful place and become the world's leader again in higher education.

INTRODUCTION

United States once led the world in educational attainment but today, according to the Organization for Economic Cooperation and Development, United States ranks twelfth. This is why U.S. Department of Education was charged to examine the issues related to access, affordability, quality, and accountability (U.S. Department of Education, 2006). Although 370 years after the first college in U.S. was established in Massachusetts Bay Colony, higher education became one of the greatest success stories and the envy of the world for years; but it needs to be improved dramatically. We should not take for granted this post-secondary superiority because education is now more important than ever before to our collective prosperity. In order to change things around, leadership in higher education needs a complete overhaul. There should be collaboration between college presidents and their faculty to bring the desired change.

Leadership is the most rare and precious of the various kinds of human capital. It is an art not a science and effective leadership according to Sample (2002), is purely an art. Leadership is a process of influence that leads to the achievement of desired purpose (Spendlove, 2007). It is an observable, learnable set of practices (Harris, et al, 2004). Kouzes and Posner (2003), considered it to be everybody's business while Hill (2005), in her publication, "Leadership Development: A Strategic Imperative for higher education," defines it as an art that requires a mix of technical, conceptual and human talents. The desire to understand accurately and precisely define leadership has interested many researchers over the years. This has resulted in many publications during the twentieth century focusing on the issue related to abilities, behaviors, sources of power and traits that determine how effective leaders influence others. It resulted in defining leadership as a collaborative endeavor among group members and, an influence relationship among the leaders and the followers "who intend real changes that reflect their mutual purposes" (Brungardt, 2010).

Frances (2005) defines leadership as a high calling and responsibility and the foundation of all organizations upon which everything depends. It is as precious as gold and equally rare. It is not inherited and results from instruction, commitment and a concern for what is right and in the best interest of others. It results from self-discipline, time and pressure. Today's leaders in Universities and Colleges are required to meet challenges that are greater in scope than those of previous American history in yesteryears. They are required to make major organizational reforms, form alliances and partnerships with others in order to achieve common goals, and create new organizational enterprises.

LEADERSHIP EFFECTIVENESS

In order to meet the economic and societal challenges of the 21st century successfully, the institutions of higher education need to become “change-capable”. It is felt that the effective leadership is the key to transform the institutions to one that is “change-capable” (Fullan, 2009). Leadership effectiveness, as Nelson (2003) noted, is a function of leader characteristics and behavior, group member characteristics and other situational variables. Effective leadership is neither concrete nor static. There are critical success factors that define competence. The successful leaders must have a mix of knowledge and skills which are behavioral, business and technical in nature. They need technological expertise and experience, business know-how and judgment and very high behavioral skills. They must be experienced in leadership, communication, teamwork, and they must know how to facilitate change. With respect to experience, what kind of experience and how much of it is necessary? Is leadership experience necessary for success in presidential leadership or is past experience as Vice President for Academic Affairs necessary? Are many years as a faculty member considered enough experience? Birnbaum, (1992) suggested that in order to be successful in presidential leadership, it is necessary to have a significant experience in higher education but not a specific kind. As administrators, college presidents make logical and non-logical decisions quickly and accurately based on their recollections of past situations over time. Therefore past experience of any kind may be useful in guiding the college presidents in decision making.

There are three key areas that are central to effective leadership. They are strategy, change, and collaboration. Institutions of higher education need to understand and make strategic choices to reach the desired goals, with the faculty and the administration seeing their roles in enacting the strategy. The whole university community must be engaged directly around activities that will create the opportunity to make the necessary change, build the structures that allow the change to spread and stick. With respect to collaboration, the last key area to effective leadership, emphasis should be on clarifying and building on common interest that will help the leaders build durable relationships among the organizational members. This will increase efficiency and improve performance throughout the whole organization.

There are three major characteristics of effective leadership. Effective leaders help in establishing a vision. They have a commitment to a vision and the ability to passionately communicate the vision to others. Lastly, the effective leaders have the ability to inspire trust and build relationships within the organization (Harris, 2004). Spendlove (2007) feels that the factors needed for effective leadership in higher education are academic credibility, reputation and respect, experience of University life, people skills - the human aspects, the ability to communicate, persuade and negotiate with others, ability to listen, ability to think broadly and strategically, and to engage with people.

The ability to listen is a very important leadership attribute. As the leaders rise to the top, they learn the conventional rules of social discourse which do not build them up effectively to be artful listeners because, though they may listen attentively, and very carefully, they are in most cases misunderstood or misinterpreted by the followers. Artful listening is generally a key element. Stretching the time and effectiveness of the listening very carefully and intensively at the beginning will save a lot of time at the end. However, it is important to know when to stop listening (Sample, 2002).

Diamond (2002) pointed out that the basic tools for effective leadership are intelligence, academic credentials, high energy, and management experience. The personal characteristics needed for effectiveness are: being a faculty advocate, staff advocate or student advocate, bearing no grudges, having a sense of humor, giving credit to others, and demonstrating integrity. Ferren and Stanton (2004) added other personal attributes that include having political savvy, ability to create confidence in others and ability to manage very large budget. For a person who is good at institutional planning, and knows how to access relevant data to analyze complex issues, the following skills will be needed as an academic leader: analytic thinking skill, organizing skill, and persuasive communication skill. An academic leader must have a sense of the institutional perspective and courage to act as an agent of change. The ingredients in the factors that make leadership feasible are: formal education of the leaders along with family background and early childhood experiences, adult characteristics including interpersonal and communication skills, and evolutionary roots of authority (Padilla, 2005).

PRINCIPLES OF ACADEMIC LEADERSHIP

Diamond (2002) provided the following principles of academic leadership and institutional effectiveness:

1. College presidents should lead with their college mission in mind with intent and consistency.
2. They should develop and articulate a vision for student learning and measure how the institutional investment contributes to it.

3. They should recruit and hire strong faculty and staff for this important investment for shaping the quality of institutional programs and services.
4. They need to identify and develop internal talent because this can provide enormous payoff for the institution.
5. They are to build a critical mass of internal leadership for change, which will be identified, supported, encouraged and connected with each other until the change becomes permanent.
6. There is need to create powerful partnerships between academic and student affairs.
7. They should create and support collaboration with local high schools, so that the high school students can have the options to enroll in college-level courses.
8. They are to encourage rigorous Program Evaluation and Student Learning Outcome Assessment.

PRESIDENTIAL LEADERSHIP

The presidential leadership falls into three categories: academic president, entrepreneurial president and financial president. An academic president has experience in the field of education and brings both credibility and understanding to the issues involved including administrative experience. The entrepreneurial president crafts a risky vision and persuades others to follow him though there may be resistance from the faculty and students. The financial president has experience in finance and fund raising. It is very easy for a financial president to receive the support of the faculty if, through his successful fundraising efforts the faculty salaries have been raised to a significant level (Diamond, 2002).

In the past, the academic presidency in America carried with it a great prestige and distinction. It evolved through various stages because of the need to respond to social needs. In the colonial colleges, the clergyman president was the moral leader who served as the teacher, administrator and fund-raiser. Research universities were built after the Civil war and faculty gained greater authority by forming the American Association of University Professors (AAUP) which through their union activities diminished the role of the college president. After the World War II, Bornstein (2003) threw light that they functioned like political leaders to get things done through persuasion and coalition building. In the twenty-first century, the academic presidency became more complex and challenging that it was viewed as an “unmanageable” and “untenable”. The President was described by a Commission as a “juggler-in-chief” who is expected to meet endless needs and demands within and outside the institution. Moreover the constitutions expanded their exercitations for a president and reduced their tolerance for error. This led to the president moving to better institutions or higher paying jobs instead of previous career-long presidential commitment to institutions that characterized the early history of higher education.

PRESIDENTIAL TYPES

There are four presidential types: the bureaucrat, the intellectual, the egalitarian, and the counselor. The bureaucrat communicates with top administrators and with the immediate staff, and also indirectly through staff or other intermediaries. The intellectual has the most distinctive feature of frequent communication with the faculty. The egalitarian communicates frequently more than other presidential types with a wide range of other people not only the faculty and students. Those other people may include the staff, “the registrar, the financial aid officer, donors, potential students and visitors.” The fourth presidential type, the counselor, has the distinctive feature of dealing with others by means of personal conversation and informed meetings.

In these presidential types, there are five types of administrations: the hierarchical, the humanistic, the entrepreneurial, the insecure and the task-oriented (Astin, 1980). The hierarchical administration communicates frequently with the president but infrequently with their lower level colleagues. The humanistic administration communicates frequently but places less emphasis on progression or technical competence of subordinates and does not rely on faculty as a source of information about each other. The entrepreneurial administration values the same traits in their subordinates that they feel are generally regarded in their institutions. They tend not to have intellectual presidents and not to reward the display of scholarship. The insecure administration may feel threatened by colleagues or subordinates that show initiations, cooperativeness and effectiveness with students and faculty support. The task-oriented administration can be labeled as competent, effective, responsible, mature, faculty oriented and can be considered to be instrumentalist.

PRESIDENTIAL LEGITIMACY

Presidential legitimacy, in Borstein's view (2003), is fundamental to a president's ability to influence constituents, generate needed funds and make necessary institutional change. When a new President arrives on campus, people's expectations are high because it symbolizes a new beginning. It is supposed to usher in institutional change and improvement. The legitimacy is the power inherent in the presidential position that is granted by the governing board. There are five factors in the presidential legitimacy:

1. The individual's personal background such as career path and identity characteristics, race, gender, and religion.
2. Institutional factors; like the internal, structural and cultural.
3. The environmental factors such as the economy, community issues and enrollment patterns.
4. Technical factors, such as not neglecting a tree while focusing on the forest, cleaning underbrush.
5. Moral factors - High standards of ethical behaviors in all aspects of life and work and to be a role model to constituents and good steward of the institution (Bornstein, 2003).

There are several threats to presidential legitimacy. These are:

1. Lack of cultural fit. A key element to legitimacy is the ability to work within the institutional culture.
2. Management incompetence; not having a wide range of management expertise.
3. Misconduct; unethical or inappropriate or illegal behavior.
4. Erosion of social capital which provides constituents with a credential that entitles them to reciprocal social obligations that are similar to the practice of credit in economic capital.
5. Inattentiveness to the problems and decision their office requires..
6. Grandiosity; acting without consultation because of past successes.

STRATEGIES FOR GAINING LEGITIMACY

The following strategies can be for impediments in the quest for gaining and maintaining legitimacy:

1. Enhancing individual legitimacy by participating in designing the process by which the trustees introduce the president to the constituents and the community.
2. Work with the predecessor president on a "production and legitimating" process of transition for both.
3. Conduct environmental assessment to enhance legitimacy.
4. Enhance technical legitimacy by creating and articulating an inspiring vision that will help the institution imagine its future as they celebrate the past.
5. Enhancing moral legitimacy by providing ethical leadership.
6. Maintaining a scholarly life and participating in discursions on educational issues - consult, collaborate, and communicate.
7. Stay current on trends in higher education and society.
8. Respect the mechanisms of board and faculty governance.
9. Resist the pressure to undertake major systematic changes without thorough review and constituents' involvement unless the institution is in a crisis situation.
10. Make all possible procedural changes that can facilitate the work of the institution.

ASSESSMENT OF PRESIDENTIAL LEADERSHIP EFFECTIVENESS

The assessment of presidential leadership effectiveness, according to Birnbaum (1992) depends on three things: the values of the assessor, the time period under consideration and the expectations based on the history of the institution. There are three valuable methods of assessing the quality of presidential leadership. The first is by sophisticated and experienced experts. The second is by peers, other college presidents who have had personal experience in the complexities and demands of academic presidential life. The third is self-evaluation, though in most cases, the college presidents would see themselves as responsible for campus improvements and events that have had positive effects on the institution.

CONSTRAINTS TO HIGHER EDUCATION

There are storms of constraints that higher education faces today that threaten the survival of many colleges and universities. These include diminishing resources, shrinking endowment, declining giving, shrinking applicant pool, more competition, cuts and freezes on hiring, aging and adjunct faculty. These obstacles, however, offer the institutions of higher education significant opportunities to sharpen their focus and recalibrate their priorities against available resources and build efficiency (Center for Applied Research, 2009).

One major constraint that college presidents face today is the vote of no confidence that college faculty passes on the college presidents. Once this is done by the faculty, some college presidents see it as “hand writing on the wall.” Some resign immediately or shortly after. The purpose of the vote of no confidence is to oust an official and sometimes it is pre-requisite to termination. It is also used as a form of public rebuke. Some incidents of such vote of no confidence occurred in several college campuses of recent in both small and big colleges. A vote of no confidence was passed 47-9 against Mountain View College President, Felix A. Zamora who has been the president of the Oak Cliff Campus since 2004. The faculty at the University of Massachusetts voted 214 to 1 in favor of vote of no confidence against the University of Massachusetts President Jack Wilson, for not involving the faculty in his re-organization plan to streamline the five-campus system. Similarly, Oakland University professors called for a vote of no confidence in President Gary Russi. The action was meant to express their dissatisfaction on the adversarial university atmosphere. It was felt that President Russi had reduced the transparency of governance and had made unilateral decisions and also cut the communication channels between the faculty and the administration. The vote of no confidence was not meant to force the President out of office because such a vote of no confidence is not binding. An extended strike had delayed the start of classes during the semester.

A very surprising case was that of President Lawrence H. Summers, the President of the prestigious number 3 university in the world, who received a vote of no confidence from Harvard’s faculty of Arts and Sciences which passed 253 to 137 with 18 abstentions. The faculty of Arts and Sciences, which is considered to be the heart of the University, is only one of Harvard’s 10 schools but represents about half of the tenured and tenure-track faculty. Such a vote of no confidence is surprising because it is believed that such vote of no confidence is unheard of in modern Harvard’s history and is not known to have been passed in any Harvard’s President at least since the Civil War. Therefore, such faculty action would carry significant symbolic weight on the University campus. It is also known that in the 1930s, when President James Bryant Conant fired some popular professors, there were talks of such a vote against him. Some faculty members strongly felt that President Summers should resign and that there was no “noble alternative to his resignation,” because of his dictatorial and autocratic management style. Some faculty members did not feel that the President should resign because to them, such vote of no confidence simply indicated a lack of confidence in his leadership. Some students who were protesting, sang for the President as he made his way to his car; “Hay, Larry, Goodbye, ---- Kiss Him Goodbye.” (Bombardier & Abel, 2005).

STRATEGIES THAT WILL RETURN TO AMERICA THE GOLDEN PERIOD OF HIGHER EDUCATION

The golden period of higher education in America was when United States was the leader in higher education. That time the academic presidency carried with it a lot of prestige and distinction. Later some unethical behaviors of some college presidents and some senior management teams were observed on some college campuses that strained the cordial relations between the president and the faculty. It created adversarial university atmosphere. Some of these resulted in passing vote of no confidence in some presidents and prolonged strike actions that affected class lectures for days.

In order to return higher education in the United States to its glorious years and restore America to its past number one position in higher education, several bold steps must be taken.

1. College presidents should lead with a total commitment of the college mission in mind.
2. A strong partnership should be created between the president and the faculty.
3. A very powerful partnership should be created between Academic Affairs and Student Affairs.
4. Very strong, dedicated, and experienced faculty and staff should be hired.
5. Internal talents should be identified and developed for future utilization.

6. The president should listen attentively to the problems and decisions that the president's office requires.
7. An internal leadership for change must be built by the president. A change that will bring organizational progress must be identified and supported until the change becomes permanent.
8. There should be an encouragement for consistent Program Evaluation and Student Learning Outcome Assessment.
9. Because of the declining pool of applicants for admission to colleges, collaboration with local high schools should be created and supported to give the high school students the options to enroll in college level courses.

CONCLUSION

This paper examines presidential leadership and higher education in the United States of America during the golden years when United States was the leader in higher education. Poor leadership, mismanagement, and unethical behaviors pushed higher education in America behind today. Collaboration of the president with college faculty and partnership with local high schools are considered to be keys to return United States to its original golden years of higher education.

The goal to have a college degree is almost universal but the percentage of those who complete the college education has not changed. Therefore there is need to build a clear path for the students to achieve their academic goals. The high school graduates are aware of the importance of college education for improving their future earnings potential. There is therefore a need to provide good guidance for their college access, enrollment, and completion processes.

The barriers of poor academic preparation, not having the skills and support to succeed in college, and rising college costs threaten the survival of the students. There is need to have expanded access programs that will increase the educational opportunities for college bound students. Once the students are in college, the colleges must provide necessary programs in academic advising, study skills, time management, critical thinking, planning and effective use of the library. Improving student success has become a key federal and state policy objective with the major goal of increasing both year-to-year retention and degree completion rates for all students.

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FLEET PLANNING AND MULTI-ENGINE AIRCRAFT SELECTION FOR FLIGHT TRAINING ORGANIZATION

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ABSTRACT

The paper simulates the evaluation and selection of aircraft for a flight training organization (FTO) located in Eskişehir, Turkey, in an assumed flight that includes both local and cross country flights. This is carried out through a series of phases and subsequent levels of analysis. At the end of these phases some recommendations are given for selecting the suitable fleet. Finally, it was found from the study that 5 of the BEECHRAFT C90GTI aircraft would be the best choice for the FTO.

INTRODUCTION

Aircraft manufacturers usually represent their aircraft to their customers in the following four categories:

- Aircraft specifications
- System configuration equipment
- Cabin configuration
- In flight entertainment configuration

The Aircraft specifications would include the aircraft dimensions, performance, weights, and interior. Cabin configuration (i.e., whether the aircraft has a single, two or three classes) and system configuration would depend on the client needs. System configuration could include the type of engine used, and the in-flight entertainment systems in the aircraft are considered as selectable items. The selection would depend on several factors.

Aviation organizations, on the other hand, have their own structure. Understanding the aviation operation and structure is an important step for better understanding of the aviation world and its behavior with different aircraft designs, and when to buy, sell, or rent an aircraft. Important information should be known about the aviation to investigate the suitability of a given aircraft for a given aviation organization. This information should include such items as the capacity and number of hangars, if they outsource some of their maintenance, or outsource some tasks or services, and the number of employees, and their salaries. A given aircraft would be suitable for a large organization but not suitable for a small organization.

For any maintenance, repair, inspection, or material handling on the aircraft, the Maintenance Planning Document (MPD) that is supplied by the manufacturer deals with these issues. The MPD gives guidelines for Base Maintenance and Line Maintenance for the aircraft in its operation duration and when it should be carried out. From the maintenance operation, maintenance labor rate for engines and aircraft is required. The base maintenance would include all major checks that need to be carried out in a hanger usually in the base, but the line maintenance are tasks done after every flight or day for the aircraft.

Ground time or turn round time is an important issue to the aviation industry. It is where aircraft, airline, airport, and air traffic control clearly interact. Ground time is important for the aviation industry because

the lower the ground time the higher the utilization of the aircraft and this would lower the direct operating costs. Ground time is also important for the airports. Lower ground time reduces congestion at the airport. The airports would then handle more aircrafts.

To make a successful plan, a fleet planner must take this time into consideration quite early in the planning stage. Therefore, Ground time is taken into consideration while building the fleet plan model. In real life each aircraft has its ground time, which depends on a number of elements such as range of flight, is the flight domestic or international, is the aircraft at the base or not, the capacity of the flight, the design of the aircraft, and other factors.

Fleet Planning

Fleet planning is very important for any aviation organization. Fleet planning determines what type of aircraft the FTO should buy, and how many of them, in order to achieve the organization goals. Fleet planning also gets involved in the negotiation deals with aircraft and engine manufacturers, most of the decision making would be through fleet planning. So by understanding basic elements of fleet planning one would essentially understand the organization needs and operation parameters. It should be noted that there are other factors that influence the buying of a new aircraft that do not depend on fleet planning, such as people factors and communality [1].

Particularly communality is very important other factors. For example manufacturers in marketing their aircraft by claiming that communality exists between their aircrafts and the advantage of having a fleet of different type of aircraft from manufacturers would:

- Because of the communality that exist, less time is needed in training pilots from flying one type of aircraft to another.
- Also less time in training maintenance manpower from maintaining one type of aircraft to another.
- Since the systems are similar and properly use the same tools and procedures for maintenance or even operation such as refueling, or handling, that would have a big effect on the operational costs.

The only main disadvantage of communality is that if having the whole fleet of the same type of aircraft, it is difficult to change and the organizations would not be in a good position in the negotiation for a new aircraft with the manufacturers, while if they have a mix fleet they can buy one aircraft type or another so that would help them get a better price of the aircraft needed. It is important to note that fleet planning is not just aircraft evaluation, aircraft comparison, route analysis, aircraft acquisition, or matching supply to demand in isolation, but includes all these elements simultaneously [1].

A better understanding of fleet planning decision making and the evaluation of an aircraft in a organization would help construct the flight model. One of the most difficult decisions in an organization is whether to buy a new or a used aircraft, and what type, or renews the existing aircraft. The dilemmas of fleet planning of a organization is that

- The fleet is highly complex
- Decisions must be long term
- Market is volatile
- Networks are heterogeneous

So fleet planning is a compromise and is inevitable as there is no exact right solution. Each FTO has a different approach towards the replacement of its aircrafts. There are large FTO which are government supported, small, or capital rich FTO, all would have a different aircraft average age, but they all follow the simpler principle of fleet planning. Fleet planning is an ongoing process over the life cycle from the evaluation through disposal and data collection [1].

MULTI ENGINE AIRCRAFT SELECTION

In this issue, multi engine aircrafts are being inspected for flight training in School of Civil Aviation. As the reason, buying of new aircraft is planned for the multi engine training program as shown in Table 1.

Table 1 Anadolu University SHYO Flight Training Department Multi Engine Training Program

Flight Number	Hour/Landing	Type Of Flight
Multi Engine Type Rate		
126	01.30/1	VFR
127	01.30/1	VFR
128	01.30/1	VFR
129	01.30/1	VFR
Multi Engine Instrument		
130	01.30/1	IFR
131	02.00/1	IFR
132	01.30/1	IFR
Multi Engine Control Flights		
133	01.00/1	IFR
134	01.30/1	VFR
TOTAL	13.30/9	

Currently under production aircrafts and technical information are shown in Table 2.

Table 2 Currently Under Production Aircraft

Name	Engine Type	Service Ceiling	One Engine Service Ceiling	Cabin Pressurized	Person on Board
DIAMOND DA 42	Turbo Diesel Cylinder	18.000 ft	10.500 ft	No	2 POB
PIPER SENECA V	Turbo Charged Cylinder	25.000 ft	16.500 ft	No	4 POB
BEECHCRAFT C90GTI	Turbo Prop	30.000 ft	19.170 ft	Yes	6 POB
BEECHCRAFT BARON G 58	Turbo Charged Cylinder	20.688 ft	7.284 ft	No	4 POB
VULKAR AIR VR	Turbo Charged Cylinder	20.000 ft	9.000 ft		4 POB

Multi Engine Aircrafts that shown in table 2 are inspected in criterion sort below.

- Performance,
- Fuel and fuel consumption,
- Utilization Characteristic,
- Availability of MCC (Multi Crew Co-Operation) training.

Performance

It is mandatory to fly on airways and specific altitudes that approved by authority in training flights. Aircraft has to fly on any meteorological conditions without one engine, and also at approved minimum altitudes with maximum constant power which is stated in operational hand book.

In training flights, 13.000 feet is the minimum altitude from Anadolu University Airport to other airports. (Table 3) All brand new aircrafts meet JAR-OPS performance requirements.

Table 3 Minimum Altitudes and Distances for Training Flights' Routes

	ROUTE	Min. ALTITUDE	DISTANCE
1	Anadolu-Esenboğa	FL130	2x150NM
	Esenboğa-Anadolu	FL120	
2	Anadolu-Kapadokya	FL130	2x245NM
	Kapadokya-Anadolu	FL120	
3	Anadolu-Çarşamba	FL130	2x315NM
	Çarşamba-Anadolu	FL120	
4	Anadolu-Şakirpaşa	FL170	2x345NM
	Şakirpaşa-Anadolu	FL180	
5	Anadolu-Erkilet	FL130	2x285NM
	Erkilet-Anadolu	FL120	
6	Anadolu-Afyon	FL130	2x80NM
	Afyon-Anadolu	FL140	
7	Anadolu-Isparta	FL130	2x145NM
	Isparta-Anadolu	FL140	
8	Anadolu-Uşak	FL130	2x125NM
	Uşak-Anadolu	FL140	
9	Anadolu-Antalya	FL130	2x190NM
	Antalya-Anadolu	FL140	
10	Anadolu-Dalaman	FL130	2x225NM
	Dalaman-Anadolu	FL140	
11	Anadolu-Menderes	FL130	2x250NM
	Menderes-Anadolu	FL140	

Fuel and Fuel Consumption

In Turkey Airspace, %96 of destinations which is flown for training flights provides JET-A1 and JP-9 (Table 4).

In terms of maintenance costs, the already used training aircraft is C-90 and maintenance personnel have knowledge on this aircraft so it will provide shorter time to eliminate potential failures. The existing stocks of spare parts for C-90 aircraft will used.

Utilization Characteristic

As known, acceleration of turbo propeller engines is limited by the speed controller of propellers. In addition, the spill valves in the fuel flow control unit automatically control the fuel pumps and provide compliance flow the fuel to engines. Operations of turbo-jet engines, in every climate conditions, is regulated by the fuel flow control unit and related systems that adjust the flow. Fuel flow control devices in general, adjust fuel flow according to the altitude, inlet air temperature, throttle level and speed of flight.

In accordance with the above-mentioned, in flights with turbo-prop engine aircraft the acceleration becomes within 3-4 seconds. This delay protects the engine from structural failure. The acceleration differences between engines at take off roll can cause left or right sudden deviations. Therefore in the initial phase of takeoff and touch and go it is become important to apply throttle smoothly. This property is also valid for turbo-jet engine airline aircrafts.

Table 4 Fuel Types of Aerodromes

	100 – 130 Octane	Jet A1/Jp9
Ankara	X	X
İzmir	X	X
Dalaman	X	X
Bodrum	X	X
Çardak	-	X
Antalya	X	X
Uşak	-	X
Afyon	-	X
Edremit	-	X
Gaziantep	-	X
Kayseri	-	X
Malatya	-	X
Muş	-	X
Erzurum	-	X
Samsun	-	X
Trabzon	-	X
Sivas	-	X
Elazığ	-	X
Diyarbakır	-	X
Van	-	X
Yenişehir	-	X
Maraş	-	X
Mardin	-	X
Efes	X	-

Anadolu University SHYO fuel unit price for 2007.

100–130 Oktan 1, 04 \$ +VAT
 Jet A1 0, 76 \$ +VAT

Table 5 Fuel and fuel consumption

Aircraft	Fuel	10.000 feet altitude fuel consumption	Fuel cost
BEECHCRAFT C90GTİ	JET-A1	116,8 Lt/hr	116,8 X 0,76= 88,76 \$ +VAT
PIPER SENECA V	100/130 Octane	90 Lt/hr	90 X 1,04= 93,6 \$ + VAT
DIAMOND DA 42	JET-A1	48Lt/hr	48 X 0,76= 36,48 \$ + VAT
BEECHCRAFT BARON G 58	100/130 Octane	55,2 Lt/hr	55,2 X 1,04= 57,40 \$ + VAT
VULKAR AIR VR*	100/130 Octane		

* Manufacturer did not provide any information.

Availability of MCC Training

MCC training is mandatory for users of multi-engine aircraft. This training is given with FNPT II or type simulators. The FNPT II simulator within our university has B-200 multi-engine aircraft type. B-200 and C-90 are aircrafts produced by the same company with similar handling characteristics.

CONCLUSION

Given the above considerations;

Diamond DA 42 and Beechcraft Baron G58 aircrafts advantages:

- Widespread use by flight schools
- Low fuel consumption
- Easy to use features.

Diamond DA-42 and G 58 Beechcraft Baron aircraft disadvantages;

- Single-engine service ceiling is inadequate in case of remain single-engine in IFR flights
- If the flight training is planned on IFR airways under IMC (Instrument Meteorological Conditions) conditions these aircrafts cannot be used.
- However the flight training can be planned on IFR airways under VMC (Visual Meteorological Conditions) conditions. When taken into consideration that Eskisehir Anadolu University Airport VMC condition days is approximately 135 days, especially in winter conditions, it will prevent the training mission. Due to academic calendar, the pilot students have multi-engine instrument flight training in the autumn and winter months. In the absence of the appropriate weather conditions the students are unlikely have prolong period of the graduate.
- Beechcraft Baron G 58 aircraft has not seen appropriate to use on flight training because of being turbo-charged.
- Anadolu University Airport should be the other end of the minimum altitude to 13 000 square feet as stated in Table 3 were
- The minimum altitude of flights from Anadolu University Airport to the other airports has been stated 13000 feet as shown in table 3. Diamond DA 42 and Beechcraft Baron G 58 aircrafts have not been considered for evaluation because of remaining below airway flight level minimums.

Vulkan Air VR aircraft disadvantage:

- It has not been evaluated due to the manufacturer did not provide any information.

Two aircraft have been identified when taking into consideration the criteria of 13000 feet altitude and single-engine failure operation altitude during navigation. These aircrafts;

- Piper Seneca V, (Single engine service ceiling 16.500 feet)
- Beechcraft C-90'dir. (Single engine service ceiling 19.170 feet)

Subsequent comparisons have been done on Seneca V and C-90 aircrafts. Both aircrafts have proved themselves in terms of production and operation. However, both of them have advantages and disadvantages. When viewed from this aspect;

- Seneca V aircraft do not have a pressurized cabin. High levels of oxygen are necessary to ensure the flight tube and oxygen mask, have to be scheduled flights. High level flight should be planned with oxygen tube and mask to provide the oxygen demand. During training flights the requirement of explaining items related to the flight cannot be done by the instructor pilot owing mask on face.
- Due to pressurized cabin C-90 aircraft eliminates these type problems and becomes advantageous situation.
- There is no serious differences between aircrafts fuel consumption
- C-90 aircraft has advantageous in fuel supply at external airports.
- C-90 aircraft is in an advantageous position due to having promotional and educational training support.
- C-90 aircraft is in an advantageous position in MCC training because it is similar to the aircraft type in existing simulator.
- C-90 aircraft spare parts inventory in school and maintenance personnel experiences about C-90 aircraft makes it in advantage about the selection of as new aircraft.

Considering in terms of utilization characteristics;

- Turbo-prop engine aircraft and jet engine aircraft show similarities in technique of usage.
- It is a great advantage for students to have training on turbo prop engine aircraft in transition to airlines. Multi-engine piston aircraft engine training aircraft to the airline of the graduates have observed that while education has been adapted. The graduates trained with multi-engine piston aircraft observed having difficulties on adaptation training of airline aircrafts.

Interviews with experienced pilots and maintenance staff as a result;

- Seneca V aircraft have piston engines, this make it to have advantage compared to other aircraft; in training flights like as missed approach or other situations requiring immediate power. But the plane's turbo-charged that the use of the throttle hard and fast in the case of damage to the turbo system and the system is giving rise to become inoperative. Owing turbo-charged, in the case of usage the throttle hard and fast can cause damage to the turbo system and the system can become inoperative. In the event of such a failure, the throttle remains in recently used regime setting and cause the aircraft to become in dangerous situations.
- Seneca V turbo engine aircraft, is more appropriate to be used by trained and qualified pilot for commercial flight rather than training the students.
- The first time during a training flight as a result many of the students will learn the use of motorized aircraft throttle control in the firm will not always be possible to prevent use.
- As a result, it is not always possible prevent students, fly first time with a multi engine aircraft, to use throttle hard. In terms of flight safety within the school Seneca V aircraft has not been very suitable for use in multi-engine training.

The data described above are evaluated; C-90 is eligible for multi-engine aircraft training.

Table 6 Aircraft evaluation for training fleet

Evaluation criterions	Diamond DA 42	Beechcraft Baron G 58	Piper Seneca V	Beechcraft C-90	Vulkan Air VR
Single Engine service ceiling (IFR Flights)	insufficient	insufficient	sufficient	sufficient	insufficient
Cabin pressure	insufficient	insufficient	insufficient	sufficient	
Fuel supply in other airports	sufficient	insufficient	insufficient	sufficient	insufficient
FNPT II adaptation in Training of MCC	insufficient	sufficient	sufficient	sufficient	sufficient
Aircraft engine suitable for training	sufficient	insufficient	insufficient	sufficient	insufficient

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Turkish Civil Aviation Law

CORPORATE SOCIAL RESPONSIBILITY: A CLOSER LOOK AT NIGER DELTA COMMUNITY (NIGERIA)

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ABSTRACT

Increasingly, the notion of CSR is being given considerable attention in business as well as the academic community (Weaver et al., 1999; Kok et al., 2001; Jobber 2009). Within the academic community, this interest has given rise to a number of studies on corporate social responsibilities (Carroll and Shabana, 2010). Current understanding of the level of socially responsible practices has been grounded on Western orientations. However, these studies have failed to articulate the perspectives of the communities within which these businesses are being conducted, especially in Sub-Saharan Africa. The objective of this study is to examine the level of socially responsible investments within Sub-Saharan Africa, particularly in the Niger Delta region of Nigeria.

INTRODUCTION

The issue of social responsibility is becoming a theme for organisations that are serious in their approach towards business excellence. Employees, competitors and government are all placing increasing demands on management. Expectations of stakeholders not only relate to direct transactions between parties, but there is now an expectation that management participates in the debate on societal problems (e.g. pollution, poverty, health and unemployment) and to think proactively about the effects of the business on society at large (Preston, 1995; Kok et al., 2001; Banerjee et al 2003; Foran, 2001; Vaaland et al 2008).

There is much debate in the literature over what constitutes corporate social responsibility and what can be defined as corporate social responsibility (Devinney, 2009; Haigh and Jones, 2006; Kok, 2001; Dahlsrud, 2008; Peloza and Falkenberg, 2009). These debates have given rise to different disciplinary epistemological perspectives in the study of corporate social responsibility. For example, McWilliams, Siegel and Wright (2006) identified a number of theoretical perspectives on corporate social responsibility; (Friedman (1970) identified agency theory; Donaldson and Preston (1995) stakeholder theory; (Jones (1995) stewardship theory; Hart (1995) a resource-based view of the firm; Jennings and Zandbergen (1995) institutional theory; Baron (2001) theory of the firm; Waldman et al (2004) strategic leadership theory. Following McWilliams et al (2006) review, our study relies on stakeholder theoretical perspectives. A stakeholder-oriented perception holds that organisations exist within networks of stakeholders, face potentially conflicting demands of these stakeholders, and translate the demands into CSR objectives and policies (Lindergreen and Swaen, 2010). From these considerations, stakeholder theory holds that there is more than just a relationship between an agent who has fiduciary responsibility to a principal; there are third parties to whom the corporation owes morally significant non-fiduciary obligations (Lantos, 2001). Notably, Graves et al (2001) have suggested that ‘these duties exist because, like stockholders, these other stakeholders also make investments in enterprises, employees invest their time and intellectual capital, customers invest trust and repeated business, communities provide infrastructure and education for future employees as well as tax support and so on.

Lantos (2001) delineated four different distinctions of stakeholders’ groups: first, is the systemic/macro-environmental level i.e. larger societal factors, including the entire business system, plus society at large, which consists of institutions and forces such as economic, legal, political, technological, natural, media and socio-cultural forces. The second level of stakeholders is the corporation micro-environment i.e. its immediate environment, consisting of exchange relationship partners (such as suppliers and distributors) plus competitors,

customers, the local community and the financial community. The third level of the stakeholders is found within the business organisation, notably superiors, subordinates, other employees and trade unions. Fourthly, there are a significant number of business decision makers, such as peers, family, friends etc. Against this background, the current study considers how multinational companies' CSR policies and practices within the Niger Delta communities consider these four levels of stakeholders. This paper is empirical in nature: it examines the issue of CSR in developing countries, with particular focus on the Niger Delta region of Nigeria. The primary objective is to examine how the host community derives tangible benefits from multinational corporation CSR policies and practices in the oil exploitation region of Niger Delta.

Csr and the niger delta

According to proponents of CSR, the typical large US corporation is inherently a social institution as well as an economic enterprise, so businesses should weigh the social consequences of their activities, balancing carefully conflicting responsibilities to various stakeholders (Lantos, 2001). A central issue in corporate social responsibility is that of a company's responsibility to the society and physical environment (Eweje, 2006). Kok et al (2001) broadly defined corporate social responsibility as:

'The obligation of the firm to use its resources in ways to benefit society, through committed participation as a member of society, taking into account the society at large, and improving welfare of society at large independently of direct gains of the company'.

Looking at CSR from the point of view of the company; there are at least two levels of actions related to corporate social responsibilities, as defined by Kok et al. (2001). These positions are:

- Obligations of the firm: companies are obligated to use their resources in the development of the society;
- Improving welfare: companies are socially responsible for the improvement of social welfare. This interest in social welfare provides some strategic weapons in interacting and communicating with society.

According to this view, it is not sufficient for managers to focus exclusively on the needs of stockholders or the owners of the corporation. Stakeholder theory implies that it can be beneficial for the firm to engage in certain CSR activities that non-financial stakeholders perceive to be important, because apart of this, these groups might 'withdraw their support for the firm' (McWilliams et al 2006). The issue of CSR is becoming a major issue in Sub-Saharan Africa. This interest is principally due to the execution of Ken Saro Wiwa, the socially responsible human rights campaigner in Nigeria, as well as to a general changing of social expectations and globalisation. The effects of recent corporate scandals, coupled with globalisation, have impacted much on society. Consumers are now expecting more from the companies whose products they buy. They appear to have lost much public trust in corporations, as well as public confidence in the ability of regulatory bodies and organisations to control corporate misconduct.

More so, the increasing influence of the media and technology has made it much easier for any mistakes made by companies to be brought immediately to the attention of the public. In addition, the proliferation of the Internet has necessitated the rapid spread of any communication to move faster beyond the immediate confines of any environment (Ozuem, Howell and Lancaster, 2008) thereby empowering like-minded groups and consumers to target any organisations they perceive as not being socially responsible from any part of the world. The resultant effect of global communication has been unparalleled in propagating companies' brands across the globe. As societies are better informed, companies are becoming more accountable for their actions within the communities in which their businesses are being conducted. The study of corporate social responsibility has existed for a long time, and while prevalent in North America and Europe, there are limited studies related to the practice and management of corporate social responsibility in Sub-Saharan Africa, particularly in Nigeria.

Extant evidence suggests that the existence of formal corporate social responsibility mechanisms in Nigeria stems from the United Kingdom (Guobadia, 2000). Guobadia (2000) noted that the Nigerian company law, known as the Companies Ordinance of 1912 and the Nigerian Law of Companies and Allied Matters Act (CAMA) of 1990 was a local enactment of the (Consolidation) Act of 1908 and the 1948 Company Act of the

United Kingdom. While the concept of corporate social responsibility along with its formal applications could be said to be at the developing stage at this time, there are still some changes that reflect the growing concern of companies being socially and ethically responsible in Nigeria. The emergence of the Securities and Exchange Commission (SEC) which is a government body created in 1999, was to protect investors' interests against the unprofessional and fraudulent activities of stockbrokers (Amaeshi et al., 2006). More so, the Nigeria Stock Exchange (NSE) established afterwards was developed to support the SEC in monitoring companies' financial reports through ensuring that they attain the standards required by them.

However, even at that level, there was much effort made to see that shareholders' rights were protected through the introduction of disclosure in the stock exchange. Corresponding to this, Okike (2007) noted that the introduction of the 'Merit Award' came as an incentive to companies who were found to be competent in their financial disclosures, and that in some cases, the NSE has suspended several companies who were found to be wanting or below the standard expected of them, especially pertaining to financial disclosure. Furthermore, to ensure better accountability and transparency, the Committee on Corporate Governance in Nigeria (CCGN) issued a Code of Best Practices among the boards of Nigeria quoted companies (Okike, 2007).

The committee made the recommendation that shareholders are to be responsible for electing directors and approving the conditions on which these directors, both executive and non-executive, operate. More importantly, behind this idea were the Cadbury Report (1992) and the Higgs Report (2003), which emphasised the need to elect the right group of individuals that are independent in their functions as non-executive board members. In addition to this, the formation of the Nigeria Shareholders Solidarity Association (NSSA) in 1987 came as a result of the auditors' inability to ensure accountability to shareholders. Similarly, agencies such as the Institute of Chartered Accountants of Nigeria (ICAN), the Independent Corrupt Practices Commission and the Economic Financial Crime Commission, were created by the Nigerian government in an attempt to ensure effective responsible governance. Atypical of this is the fact that even Government leaders who were found to be wanting in this regard were charged in court, and some have faced indictments in recent times.

Nevertheless, the formal practice of CSR in Nigeria started with the multinational oil companies, who had already practised CSR activities in more developed countries. In 1969 Shell set up a public relations department and mandated that it should embrace all activities relating to relations between the company on the one hand, and the Government of the Federation at all levels, on the other. More recently came the creation of a model known as the Global Memorandum of Understanding (GMOU) by Chevron Oil Nigeria in 2005. The model was designed and launched as a means through which communities could gain better access to participate and play greater roles in the management of their development (Chevron, 2008). The exploration and production of oil has caused enormous environmental problems on oil-producing communities in Nigeria. In their broad description of the effects of oil spills on the environment, Dicks (1998) and Clarke et al. (1999) stated that the impact could encompass a physical and natural alteration of habitats. Consequent to this, the United Group of Experts on Scientific Aspects of Marine (1994) claimed that the deleterious impact of oil spills in the world presented grave ecological problems:

1. Mortality and long-term impact on sea birds, marine mammals and other sea life;
2. Physical damage or permanent loss of foreshore and marine habitats;
3. Impacts on the health, viability and diversity of coastal ecosystems;
4. Damage to aquaculture stocks, facilities and tainting of commercial seafood;
5. Smothering of, and damage to, inter-tidal biota and vegetation;
6. Contamination of coastal infrastructure and amenities leading to impacts on tourism and other recreational activities;
7. Shutdown of, or damage to, power station cooling water, desalination plant intakes and salt pans;
8. Economic loss at both regional and national levels;
9. Adverse media and political attention on the oil and shipping industries and their operations.

Similarly, Okike (2006) reported that the potential pollution outlets within the oil producing communities are air emission, water effluent and waste generation. Okike (2006) argued that air emission usually originates from gas flaring in relation to gas, as well as oil separation, and the accompanying consequences can be quite hazardous both for the individual and the society at large. Water effluent on the other hand results from the separation of production water and oil spillage of waste generation. Examining the predicament and state of the oil host communities in Nigeria, the World Bank report (1995) equally evidenced this when they stated that Niger Delta

is still poor, notwithstanding the vast oil reserves exploited by multi-national oil companies. In their view, the GDP per capital is below the national average of US \$280 in the face of a high population growth rate combined with several habitable land constraints (Birnbaum, 1995). The report also showed that health indicators for the host communities are low, especially when compared with the southeast region, where water is plentiful. Childhood malnutrition, which increases infant mortality, reduces mental capacity, degrades quality of life and restricts economic productivity, was found to be a common occurrence (Onishi, 2002; Olujide, 2006).

CONCLUSION

This paper has sought to establish that social responsible performance, through the avenues of community development, offer major reconnections and enhancement with the collaborative participating companies. Communities within this region, however, are disparate societies that require to be understood in terms of their own contrasting needs and in the context of what might be acceptable to them as socially responsible projects. The increasing demand of these communities makes it more complex for participating companies to implement their socially responsible initiative within these communities.

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A CROSS-CULTURAL STUDY ON PERCEIVED RISKS AND ONLINE BUYING INTENTION: MODERATING EFFECTS OF INNOVATIVENESS AND FAMILIARITY OF INTERNET

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ABSTRACT

This research attempts to examine differences in online buying intention, perceived risks, innovativeness, and Internet familiarity of Internet shoppers in Korea, China, and Japan and identify the moderating effects of innovativeness and familiarity of Internet between perceived risks and online buying intention. A cross-cultural survey was conducted involving 411 Koreans, 393 Chinese, and 405 Japanese online shoppers. According to the analysis, there were significant differences in online buying intention, perceived risks, innovativeness, and Internet familiarity of Internet shoppers in Korea, China, and Japan. Also there found significant moderating effects of innovativeness and Internet familiarity between perceived risks and online buying intention. The implication of the study is that Internet retailers should make efforts to reduce perceived risks of online buying by trust building with their customers and target their marketing for consumers who are innovative and familiar with Internet.

INTRODUCTION

Internet shopping has become a big industry in Asian countries. The size of the Internet shopping market in Korea is estimated at \$100 billion per year (Korea Online Shopping Association 2007). China, one of emerging economies, had an Internet shopping market of \$190 billion, according to B2C e-Commerce, 2006 (iResearch 2007). The size of the Internet shopping market in Japan was \$127 billion in 2006 (Financial news 2007). Some popular Internet shopping sites are G market (www.gmarket.co.kr) and Auction (www.auction.co.kr) in Korea, eBay(www.ebay.com.cn) and Taobao (www.taobao.com) in China, and Lakuten (www.lakuten.co.jp) and Yahoo shopping (shopping.yahoo.co.jp) in Japan.

Although online shopping becomes popular in the world, there are still risks of e-commerce relating to the payment, delivery, and privacy, etc. If consumers perceive risks on e-commerce, their intention of online shopping may decrease. Internet retailers make efforts to reduce perceived risks of e-commerce. In this study, the role of perceived risks decreasing online shopping will be identified in Korea, China, and Japan. In addition, factors decreasing perceived risks of online shopping will be examined

Because the Internet is a global communication media, the potential market is huge. The Internet is operated on global standard technology and networks, and consumers around world can be connected (Quelch and Klein 1996). As a result, the Internet has been the focus of international marketing from the early stages (Samiee 1998). Although e-commerce uses standard technology, there are differences in its adoption in different cultures and countries (Chau et. al. 1999; Park and Jun 2003). Korea, China, and Japan are considered similar Asian countries, but consumers in those countries have different behaviors due to their own histories, climates, cultures, and economic development.

Cross-cultural studies of Internet shopping so far have been limited. Jarvenpaa and Tractinsky (1999) studied trust building by Internet retailers in Austria, Israel, and Finland and found no cultural effects on trust building for e-commerce in those countries. Brengman et. al. (2005) found a similar Internet lifestyle for Americans and Belgians in spite of differences in cultural backgrounds and Internet infrastructures. Mohmood et.

al. (2004) examined factors influencing Internet shopping decisions in 26 countries using secondary data and found the economic condition in the country was the most influential factor, while trust level and technology were also significant factors. Ko et.al. (2004) reported that Koreans perceived higher social risks from online shopping, while Americans perceived higher financial, time, and psychological risks from online shopping.

Pavlou and Chai (2002) developed a purchase intention model for e-commerce based on the theory of planned behavior and examined the U.S. and China. They found that e-commerce attitude and social norms were significant only in China. Park and Jun (2003) compared the effects of Internet usage, perceived risks, and innovativeness on Internet shopping in Korea and the U.S. and found the effects of perceived risks were different for U.S. and Korea online consumers. However, a comparison of Internet shopping behavior of Korean, Chinese, and Japanese consumers has not been performed by academics. We believe it would be meaningful to compare Internet shopping behavior among countries with similar cultural backgrounds and geography.

Therefore, the purposes of the study are to compare online buying intention, perceived risks, innovativeness, and Internet familiarity of Internet shoppers in Korea, China, and Japan and to identify moderating effects of innovativeness and familiarity of Internet between perceived risks and online buying intention

THEORETICAL BACKGROUNDS

Perceived Risks of Online shopping

Perceived risk of Internet shopping is negatively correlated to self-esteem, rigidity, and risk taking and positively correlated to anxiety (Schaninger, 1976). Bhatnagar et al. (2000) argued that the likelihood of purchasing on the Internet decreases with perceived increases in product risk. Perceived risks of Internet shopping come from non face-to-face interaction and anxiety about exposure of personal information over the Internet. Risk perception is likely to vary by culture. According to a number of studies, the perception of the riskiness of activities that threaten health and safety varied by culture (Slovic et. al., 1991; Kleinhesselink and Rosa, 1991). Bontempo, Bottom, and Weber (1997) observed cross-cultural differences in the perception of financial risk among students and security analysts from the U.S., the Netherlands, Hong Kong, and Taiwan. In addition, studies have show that the perceived risks of Internet shopping vary according to the e-commerce history, infrastructure, and trust culture of a particular country.

Innovativeness of Internet shopping

Goldsmith and Hofacker (1991) developed a domain specific innovation scale using the Likert scale, arguing that the scale is a more useful predictor of consumer willingness to adopt innovations. Innovativeness should be thought of as a domain-specific phenomenon, linked to broader innovative traits, but more predictive of actual behavior regarding a specific product than global innovativeness (Goldsmith and Flynn, 1995). Citrin et al. (2000) used two measures of innovativeness to explain consumer adoption of Internet shopping. Their findings indicate that Internet usage and domain-specific innovativeness have a direct influence on the adoption of Internet shopping. Like perceived risk, consumer innovativeness can differ by culture. Hofstede (1980, 1991) identifies three dimensions of national culture that can affect consumer innovativeness: individualism, uncertainty avoidance, and masculinity. Individualism and masculinity are positively related to consumer innovativeness, whereas uncertainty avoidance is negatively related (Skeenkamp, Hofstede, and Wedel, 1999).

Familiarity of Internet

Internet familiarity means the degree of experience and knowledge on skill and procedure relating to Internet usage (Gefen 2000). A familiarity of something would increases as one contact, experiences, and understands more. The higher one is familiar with something, the lower complexity and uncertainty toward something. Internet familiarity has had an important role in e-commerce expansion (Hauble 1999; Lee 2002). A consumer who is more familiar with Internet would have higher online buying intention. Internet familiarity

might have been formed according to pervasion period, infrastructure, accessibility of Internet in the society. Therefore, it is different in Korea, China, and Japan due to various infrastructure, cost, use circumstance, education, covered area, and national policy of Internet each country.

Moderating Effects of Internet Innovativeness and Familiarity between Online Perceived Risks and Buying Intention

Generally, perceived risks decrease online buying intention. The more perceive risks of online shopping, the less buying intention on the Internet (Bhatnagar et. al, 2000; Chen and Dubinsky 2003; Forythe and Shi 2003; Forsythe et. al. 2006; Jarvenpaa and Todd 1997; Park 2001; Park and Jun 2003; Pires et. al. 2004; Van den Poel and Leunis 1999). As online shopping has difficulties in offering real and rich shopping cues comparing to off-line shopping, consumers perceive higher risks during shopping. Perceived risks are important factors determining online shopping intention. Though perceived risks decrease online buying intention in general, their effects on buying intention might be decreasing by moderating variables of consumer characteristics (i.e. consumer innovativeness, knowledge or experience of Internet shopping, and Internet familiarity). Park (2001) found consumer innovativeness had a role of moderating between online perceived risks and purchasing intention. Consumers who have higher innovativeness of Internet are willing to take risks relating to Internet activities (Citrin et al. 2000). Also as consumers who are familiar with Internet have more knowledge and close relationship with Internet, the higher familiarity with Internet might reduce perceived risks and induce to increase online buying intention. Therefore, the research question of this research is as follows;

Research Question: *Are there moderating effects of Internet Innovativeness and Familiarity between online perceived risks and buying intention?*

METHODOLOGY

Samples and Procedures

Data for this study was collected from online and offline surveys of Internet shoppers in Korea, China, and Japan. The questionnaire was developed in Korean first and translated into Chinese and Japanese by bilingual translators. The translations were checked by translating the questionnaires back into Korean. Online survey services were used in Korea (e.g., NHN's Pollever) and Japan (e.g., survey.hrcglobal.com). Participants received small gifts or promotional points for responding to the questionnaire.

The final sample size was 1,209 Internet shoppers (411 Korean, 393 Chinese, and 405 Japanese). The Korean sample consisted of 207 men (50.4%) and 204 women (49.6%), the Chinese sample consisted of 201 men (51.1%) and 192 women (48.9%), and the Japanese sample consisted of 237 men (58.5%) and 168 women (41.5%). In the Korean sample, 41.6% of respondents were 18-24 years old, 40.9% were 25-30 years old, and 17.5% were over 30 years old. In the Chinese sample, 44.2% were 18-24 years old, 40.5% were 25-30 years old, and 15.3% were over 30 years old. In the Japanese sample, 42.2% were 18-24 years old, 41.9% were 25-30 years old, and 15.9% were over 30 years old. There was no significant difference in sex among the three countries (Pearson Chi-square = 2.78, $p = .096$) and no significant difference in age among the three countries ($t = 0.596$, $p = .551$).

Measurements

Perceived risks of Internet shopping were measured using 4 items on a five-point Likert scale adapted from Jarvenpaa and Toss (1997), Bhatnagar et. al. (2000), Chen and Dubinsky (2003), and Park and Jun (2003). Internet shopping innovativeness was measured using 4 items on a five-point Likert scale based on Citrin et al. (2000) and Hartman et. al. (2006). Internet familiarity was measured using 3 items on a five-point Likert scale based on Gefen (2000). The online buying intention was measured by responses to the following question: "Do you intend to buy something online?"

RESULTS

Mean Differences

Table 3 shows mean difference of online buying intention, innovativeness of Internet shopping, perceived risks of online shopping, and Internet familiarity among Korea, China, and Japan. To compare the mean difference of four variables, ANOVAs were performed. ANOVA procedures were performed to examine the mean differences of four variables by three countries. There were significant differences in online buying intention, innovativeness of Internet shopping, perceived risks of online shopping, and Internet familiarity among Korea, China, and Japan.

TABLE 3
Mean difference of OBI, INN, PR, and FAM among 3 countries

	Total (n=1209)	Korea (n=411)	China (n=393)	Japan (n=405)	F
OBI	3.23 (1.06)	3.74 (0.79)	3.14 (1.16)	2.79 (0.97)	97.6***
INN	3.09 (0.95)	3.32 (0.84)	2.92 (1.04)	3.03 (0.93)	19.4***
PR	3.50 (0.75)	3.39 (0.71)	3.77 (0.81)	3.35 (0.67)	38.9***
FAM	4.18 (0.73)	4.24 (0.62)	4.23 (0.89)	4.08 (0.74)	5.75**

() : Standard deviation, *** $p < .001$, ** $p < .01$

OBI: Online buying intention, INN: Innovativeness of Internet shopping, PR: Perceived risks of Internet shopping, FAM: Familiarity of Internet

As results, Korean is higher than Chinese and Japanese in online buying intention, innovativeness of Internet shopping. Chinese perceived more risks of online shopping than Korean and Japanese. Japanese has lower Internet familiarity than Korean and Chinese.

Moderated Regression

A moderated regression was performed to identify the effect of perceived risks of Internet shopping and the moderating effects of innovativeness of Internet shopping and Internet familiarity between perceived risks of Internet shopping and online buying intention. Table 4 shows the result of the moderated regression.

TABLE 4
The Result of Moderated Regression

<i>Variables</i>	<i>Total (n=1209)</i>	<i>Korea (n=411)</i>	<i>China (n=393)</i>	<i>Japan (n=405)</i>
PR	-.503 (-11.8***)	-.506 (-5.8***)	-.705 (-10.3***)	-.167 (-2.5*)
PR * INN	.407 (13.5***)	.199 (3.0**)	.441 (9.5***)	.480 (8.8***)
PR * FAM	.218 (5.0***)	.278 (3.2**)	.375 (5.5***)	-.079 (-1.0)
R Square	.190	.082	.303	.176

() : t-value *** $p < .001$, ** $p < .01$, * $p < .05$

PR: Perceived risks of Internet shopping, INN: Innovativeness of Internet shopping, FAM: Familiarity of Internet

As the result, perceived risks had a significant and negative effect on online buying intention (Beta=-.503, $t=11.8$, $p < .001$). This means the higher perceives risks of Internet shopping, the lower online buying intention. Same results are shown in three countries. However, the beta coefficients of PR * INN was positive and significant (beta=.407, $t=13.5$, $p < .001$) and PR * FAM was also positive significant (beta=.218, $t=5.0$, $p < .001$). These results are same in Korean and Chinese sample. This means although perceived risks might reduce online buying intention, innovativeness of Internet shopping and Internet familiarity might decrease the negative effect of perceived risks on online buying intention. Therefore moderating effects of innovativeness of Internet shopping and Internet familiarity between perceived risks of Internet shopping and online buying intention were identified. The reason why there is no moderating effect of Internet familiarity in Japan is resulting from lower

Internet familiarity of Japanese.

CONCLUSIONS

This study compared online buying intention, perceived risks, innovativeness, and familiarity of Internet shopping in Korea, China, and Japan. Although these three countries are close geographically and culturally, there were significant differences in buying intention, perceived risks, innovativeness, and familiarity of Internet shopping in those countries. This means that Internet shopping behaviors vary according to culture and social traits of the people; for example, the popularity of offline shopping despite the availability of online shopping technology. So, a successful marketing strategy by an Internet retailer in one country does not guarantee a successful strategy in another country, even if the countries are close in culture and geography, such as Korea, China, and Japan.

Korean is higher than Chinese and Japanese in online buying intention, innovativeness of Internet shopping. Korea has a longer history of Internet shopping than two countries and more early adopters in high-tech services and products. So, Korean is innovative to Internet shopping and shows higher intention of online shopping. Chinese perceived more risks of online shopping than Korean and Japanese. This result is caused by under infra-structure of Internet and lower trust of e-commerce in China. Japanese has lower Internet familiarity than Korean and Chinese. This result somewhat interesting but it is possible that mobile internet is popular in Japan.

Perceived risks decrease online buying intention in three countries. So, Internet retailers should reduce perceived risks for increasing online shopping. For reducing perceived risks of online shopping, privacy protecting and safe payment should be required. Innovativeness of Internet shopping moderated between perceived risks and online buying intention in three countries. Internet familiarity moderated between perceived risks and online buying intention in Korea and China. This means though perceived risks reduce online buying intention, innovativeness of Internet shopping and Internet familiarity moderate between two variables. Therefore, Internet retailers should target consumers who are innovative and familiar with Internet.

There are several limitations to this study, which may be addressed by further research. First, the sampling size of the study makes it difficult to generalize the results. More balanced and systematic sampling will be needed. Second, this study considered innovativeness and familiarity of Internet as moderating variables between perceived risks and online buying intention. However, more variables can be considered as moderating variables such as shopping mall's policy (i.e. return or refund guarantee, , seller's reputation, online consumer review, etc.

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UNDERSTANDING MACROECONOMIC PROCESSES IN THE FOOD SYSTEM UNDER CLIMATE CHANGE: A STUDY OF FOOD PRICES IN BRAZIL

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ABSTRACT

This paper provides an economic analysis of the relationship between domestic production, national wholesale prices, international prices and liquid exports of maize and wheat in Brazil from 1990 – 2007. By using actual, historical data on production as a proxy for climate impacts on agricultural production, the paper aims to ground food security models under climate change in empirical data. Although only a simple model, it sets the groundwork for further study in this area, which is both important from a human rights and development point of view, but also from a strategic business aspect.

INTRODUCTION

The 2007-08 global food price crisis has led to renewed interest in global food security and attaining the first Millennium Development Goal (MDG) of reducing poverty and hunger. A multitude of factors from energy prices and biofuel policies to the financial crisis, speculation in agricultural commodities, and climate change have been identified as some of the factors contributing to the increase in world food prices by the United Nation's (UN) High level task force on the global food crisis. Ripples from the crisis are also hitting the business sector, which is facing increasing pressure to develop innovative responses that address food security issues and sustainability in the value chain (UN 2009). However, in order to develop and enact solutions, a greater understanding as to how the food system actually operates, as a 'co-evolved [system], with mutually dependent and interacting social and ecological components and highly uncertain and unpredictable outcomes' (Ericksen 2008: 237).

Stevens et al (2003) describe food security as a dynamic concept where the stability and reliability of access to food over a period of time is guaranteed. This is particularly difficult to ensure within the supply and demand volatility of the global market. Food access is largely determined by purchasing power, which is conditional on economic growth, income and resource distribution (FAO 2003). A vital link in the food system is to understand how changes in prices and quantity translate into changes in the poor's access to assets, which then translate into food security and livelihood strategies (Imber et al 2003). Thus, the interaction between climate change processes and food prices have become dominant features on the global research agenda. Thus far, research has taken place either at the macro-level through the use of models to project food prices under different climate change scenarios (Parry et al 2004, Fischer et al 2005, Nelson et al 2009). The former have neglected to include possible climate change impacts, choosing instead to focus on international trade and the global supply chain rather than the impacts at the consumer level and its concomitant food security and livelihood implications (e.g. Imber et al 2003, Meijerink and Danse 2009, COMESA 2010).

Predictions for climate change impacts on agricultural production show that whilst developed countries are likely to benefit from climate change due to increased productivity, the developing world is likely to face a pronounced decrease in productive area, with Africa predicted to suffer the most because of added stress and uncertainty in regions that are already vulnerable to climate variability (Fischer et al 2002, Slingo et al 2005). This directly affects food security in terms of a decrease in food availability; however the effects on the element of food access are more complex, particularly as food pricing is already a complicated process. Despite climate-related impacts on agricultural markets often being referred to in the media, quantitative empirical studies analysing this link are scarce, making policy and strategy development in this area largely assumptive guesswork. Coming to

terms with this relationship has great strategic relevance, domestically and internationally, both in terms of economic development and competitiveness for those countries with agriculturally based economies as well as for agribusiness in general.

The Food System, Climate Change and Business

As the food security literature has developed over the past 20 years, the role of functioning markets as integral to food security has become increasingly recognised and with this, the role that the private sector plays within these markets and as an source of system resilience under stresses (Devereux and Maxwell 2001). Regarding climate change, there has been more of a focus on putting a price on carbon as a mitigation strategy whilst adaptation in the private sector has been centred on corporate social and environmental responsibility and carbon emissions transparency (Klassen and McLaughlin 1996; Esty 2007; Schelling 2007). Recently, some authors have critiqued this approach and have argued that climate change is now a business problem directly affecting companies operations, not just shareholder investment, which calls for a strategist's approach rather than that of a philanthropist (Porter and Reinhardt 2007). The role of businesses in adaptation to climate change and not just mitigation is becoming increasingly recognised as critically important because the effects of a changing climate system are already being seen (Vogel 2009). Furthermore, business has been called on to contribute towards development issues, particularly in the food sector, not just through social investment programmes, but through strategic investments throughout the value chain (Food Ethics Council 2009).

Climate change is a particularly peculiar problem because of the uncertainty surrounding not only its direct impacts, but also around how these will be translated through the Earth's systems. In the case of socio-ecological systems, many of the tools that we currently employ for modelling systems are insufficient for capturing the inherent complexity in their interactions. Economics in particular has been criticised for basing its assumptions on systems in equilibrium when the physical sciences recognise the difference between open and closed systems. Thinking from complexity science has started to reinvigorate economic thinking and has rebranded this new perspective complexity economics. One of the key ideas stemming from this collaboration has been to refocus the use of models as tools with explanatory, not only predictive power; this means that the assumptions of HOW the system works are as critical as the final output. It has therefore been suggested that it is necessary to test theoretical models with actual non-aggregated data to see how valid these assumptions are when applied to the real world (Beinhocker 2005). How climate change has been problematised within the food system is as a future impact on production that will have consequences for global food prices and thus impact food security. However we already confront difficulty in understanding how food prices are determined, even without the added impact of climate change. In order to understand how future production impacts from climate change will affect food prices, we first need to look at historical proxies in order to determine a relationship that already exists within the complexities of the current food system.

Determining this relationship and what potential future impacts will arise from climate change is of critical importance to both development and business strategy. Climate change is a stress that will exacerbate the pressures we currently face in the food system and so there is a need to start dealing with the complexity of this system and developing strategies around climate change mitigation and adaptation, as these are not mutually exclusive. However, this needs to be done in a way that furthers our understanding of how the food system functions rather than merely produces a figure of what a future outcome could possibly be if all the assumptions of the model are met. This provides an opportunity for innovation and strategic manoeuvres by business actors in emerging economies that will be facing increasing pressures (similar to those in OECD countries) to think strategically about sustainability in economic, environmental and social terms.

METHODOLOGY

The overall aim of this paper is to analyse the relationship between food prices and projected climate change, grounded in historical data. Due to the scale mismatch between climate events and prices, the analytical and quantitative elements of this paper are split into two parts. The first provides an analysis of the impacts of climate variability on agricultural production and how these are projected to affect Brazilian agriculture into the future. From the relationship between climate variability and production, we use historical production changes as a proxy for predicted future climate impacts on agriculture. Although historical production changes are

dependent on multiple factors including disease, pest outbreaks and lack of sufficient inputs, as well as weather related events affecting yields, the projected increase in the frequency and severity of extreme events under climate change will reduce crop yields and production below the impacts from changes in mean variables alone (Easterling et al 2007). This creates the possibility of surprises similar to the abrupt changes in production seen historically, occurring. Furthermore, there is also a high confidence that climate change will also increase the risk of fires, pest and pathogen outbreaks (Easterling et al 2007), which would have similar sudden impacts on production.

Using production as a proxy for climate impacts, the second part analyses the relationships between national crop production, prices and trade focussing on maize, and wheat because these are two staple crops, which are internationally traded as commodities in their own right rather than in a processed form. We run a simple time series analysis using annual, national data on production, liquid exports, domestic and international prices from 1990 - 2007. Unfortunately due to lack of data on wholesale prices, the time series is restricted to 17 years of data. A Least Squares estimation is employed to verify if Brazilian commodity prices are influenced by production changes, international commodity prices and liquid imports. Liquid import refers to the total amount of the commodity exported minus the total amount imported, i.e., a negative number means that imports are greater than exports. The aim of this model is to assess how reliable other partial and general equilibrium models that project climate impacts on food prices by using actual national level data. We use two staple food crops (maize and wheat), key Brazilian exports and imports respectively, in order to see the effect that this has on how each system functions under production pressures. This is a critical comparison as many studies assume that climate-induced production losses in tropical regions will be compensated for by an increase in trade from temperate regions where production is predicted to increase (Easterling et al 2007). Our hypothesis states that there is a difference between the relationship of crop production to prices for export and import-orientated commodities.

Brazil is our country of analysis because it provides us with a globally important, diversified agricultural sector within a developing economy with high socio-economic inequalities. Furthermore, sufficient data are available to run the analyses and because of the sheer spatial extent and diversity of the country it operates similarly to a region rather than an individual country. This has interesting implications for regional buffering of climate related impacts on food prices.

The Brazilian Agricultural Sector

Brazil is the third largest agricultural exporter behind the United States and European Union following a boom in this sector over the past five years. In 2007, it ranked first in the production of sugar cane, coffee, beans and oranges, second for soybeans, third for maize and fifth for cassava (FAOSTAT 2010). According to USDA figures, in 2008 the agri-food sector in Brazil accounted for 28% of GDP (\$55.6 billion) and employed over 16.4 million people. As such, agriculture is a vital component of the Brazilian economy and is set to grow in global dominance over the coming years (Scare et al 2009). However, there are three factors affecting this potential growth. The first is increasing pressure for sustainability in the production chain given Brazil's vast natural resources (Scare et al 2009). The second is an increasing reliance on governmental support to the domestic agricultural sector through credit for investment programmes like PROGRAMA MODERFROTA (*Programa de Modernização da Frota de Máquinas e Equipamento*), debt relief programmes and rural credit programmes run under social relief and poverty reduction programmes like PROMAF (*Projeto de Modernização da Administração Financeira*) and PROGER (*Programa de Geração de Emprego, Trabalho e Renda*) (USDA 2005). Finally and most significantly for this study, projections of Brazilian agriculture under climate change show reductions in low-risk areas for production for all crops studied except sugar cane and cassava (EMBRAPA 2008). Under this context, Brazil's dynamic agricultural sector provides a fascinating case for studying the linkages between climate, production, prices and trade at a national level.

Climate Change

Anthropogenic global climate change represents one of the greatest challenges for the 21st century, both in terms of mitigation (curbing greenhouse gas emissions) and adaptation (adjusting to the projected changes that are already likely to occur). Given the scientific uncertainty still surrounding the consequences of climate change, adaptation is a particularly difficult area to tackle because it requires action now for an unknown future. Despite

these uncertainties, the Fourth Assessment Report (AR4) of the International Panel on Climate Change IPCC (Easterling et al 2008) still reports robust findings that climate change will affect food security with a direct impact will on agricultural production. Unfortunately, plant experiments informing the process-based crop model simulations are focussed on the world's major food crops (e.g. IPCC projections only include wheat, maize and rice) and so common traditional food crops like sorghum, millet and cassava and important tropical commercial crops like coffee and sugar cane are often left out. However, a recent statistical climate crop model by Lobell et al (2008) has included up to ten different crops per region of analysis. This shows declines in rice (-4.5%), maize (-4.2%), wheat (-6.1%), cassava (-4.3%) and soybean (-3.3%) production in Brazil, which is in line with a recent report by EMBRAPA (2008). Based on projections for 2050 under the best case B2 scenario (predicting a temperature increase of 1.4 – 3.8°C by 2100), the report projects severe losses in the value of agricultural production due to a decline in productive area for cotton (-R\$401 million), rice (-R\$530 million), coffee (-R\$1,7 billion), soya (-R\$5,47 billion), beans (-R\$360 million), and maize (-R\$1,5 billion). These losses will only temporarily be mitigated by projected increases in the value of sugar cane production by 2020 of R\$29 billion as this increase in land suitability will be short-lived and losses of around R\$27 billion are projected for this sector by 2070.

For those models that include a socio-economic model in order to project food prices under climate change, results show a positive relationship between an increase in global mean temperature (GMT) and an increase in food prices (where a 5.5C would result in up to a 30% increase in prices (Easterling et al 2007)). A more recent study by Nelson et al (2009) using a partial equilibrium model, shows a stronger relationship between climate change and food prices with the result that a scenario with no CO₂ fertilisation effect results in a 7% decline in calorie availability in developing countries relative to 2000. However, these studies are very much aimed at providing figures from general macro-level models that only take into account a gradual increase in GMT over time, but does not include the influence of an increase in extreme events on food security, nor of possible feedbacks in the food system. These effects are arguably more critical for adaptive capacity, but they require a different type of analysis that makes use of non-aggregate data on a smaller scale. In the next section, we undertake the first step in such an analysis that aims to look at the historical relationship between fluctuations in crop production, commodity prices and trade.

RESULTS

Table 1: Econometric Analysis of Maize

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Production	1.164375	0.358689	3.2462	0.0054
International Price	-0.488034	0.340311	-1.434083	0.1721
Liquid Import	0.343951	0.139488	2.465806	0.0262

SOURCE: Authors own. Data sourced from: Production (Instituto Brasileiro de Geografia e Estatística, Pesquisa Agrícola Municipal – IBGE/PAM); Producer price (Fundação Getúlio Vargas, Agroanalysos); International price (International Monetary Fund, International Financial Statistics – IMF/IFS). Import/Export data (FAOSTAT).

Producer price was transformed using the IGP-DI deflator (prices Jan. 2010=1); mean wholesale price of a 60kg sack of grain maize was transformed using IGP-DI deflator (prices Jan. 2010=1), Paraná State.

NOTE: Dependent variable is wholesale price, method of estimation used Least Squares, White Heteroskedasticity-Consistent Standard Errors and covariance. R-squared 0.88.

The R-squared value of 0.88 shows a good model fit. The results show that at a 95% confidence level, there is a statistically significant positive relationship between wholesale price and production (p-value=0.0054) as well as between liquid exports and wholesale price (p=0.0262). This goes against the assumption that an increase in production will lead to a decrease in wholesale price, confirming the need for grounding theoretical models in empirical data. This direct relationship between production and price could be explained by the fact that prices also increase with an increase in exports. Because maize is an export crop, a surplus in production drives exports which are based on an international price and this is therefore somehow translated into wholesale prices. However, this is complicated by the fact that at the 95% confidence level, there is no significant relationship between wholesale price and international price. This could indicate that Brazil is buffered to a certain extent from volatility in the international maize market due to its maize exports. The spike in exports evident from 2000 is also interesting (see Figure 1) because this is not accompanied by an increase in production and so we must

look to other drivers of this phenomenon. Although definite conclusions cannot be drawn from this simple analysis, the results show that there is a need to interrogate further the relationships between these various factors affecting food prices in order to understand how food security will be impacted by production changes under climate change.

FIGURE 1 - Production, Producer Price, Wholesale Price, International Price and Liquid Import of Maize, , Brazil, 1990-2010, base index 2007.

SOURCE: Authors own

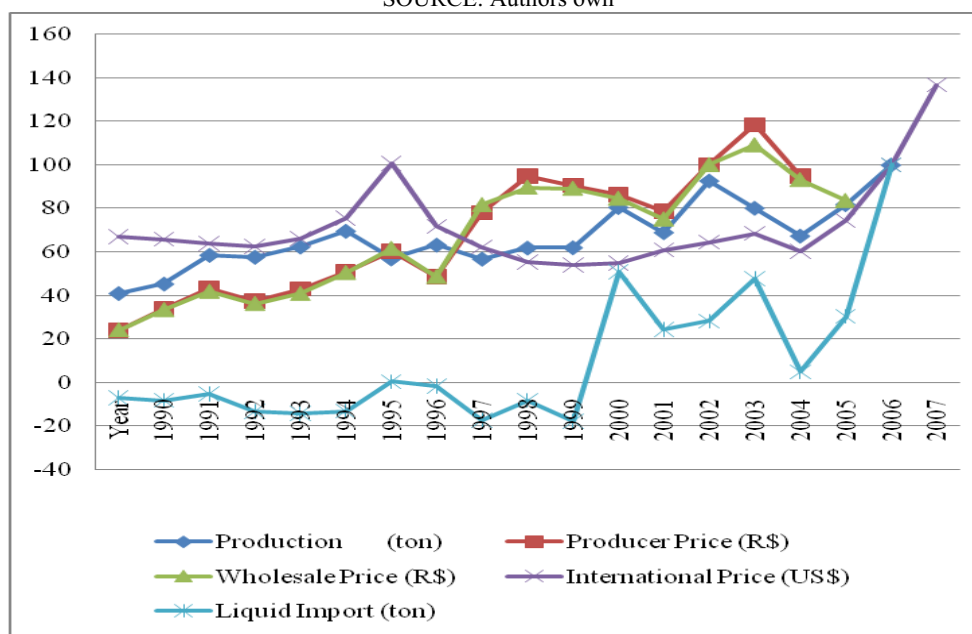


Table 2: Econometric Analysis of Wheat

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Production	0.136397	0.060509	2.254184	0.0437
International Price	0.713448	0.17745	4.02056	0.0017
Liquid Import	-0.079536	0.11091	-0.717124	0.487
AR(1)	0.86716	0.082475	10.51426	0

SOURCE: Authors own. Data sourced from: Production (Instituto Brasileiro de Geografia e Estatística, Pesquisa Agrícola Municipal – IBGE/PAM); Producer price (Fundação Getúlio Vargas, Agroanalysos); Wholesale price (Companhia Nacional de Abastecimento, Indicadores Econômicos – CONAB/IE); International price (International Monetary Fund, International Financial Statistics – IMF/IFS). Import/Export data (FAOSTAT).

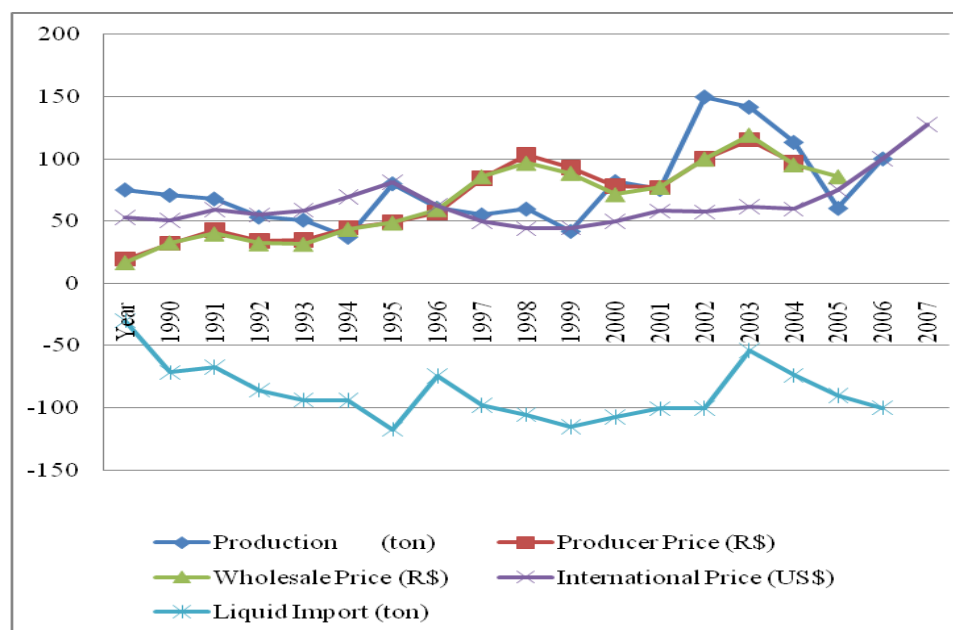
Producer price was transformed using the IGP-DI deflator (prices Jan. 2010=1); mean wholesale price of a 50kg sack of wheat flour was transformed using IGP-DI deflator (prices Jan. 2010=1), Paraná State.

NOTE: Dependent variable is wholesale price, method of estimation used Least Squares, White Heteroskedasticity-Consistent Standard Errors and covariance. Q-statistic probabilities adjusted for 1 ARMA term. R-squared 0.91.

This model has an R-squared value of 0.91, indicating a very good fit to the data. The analysis for wheat reveals a statistically significant relationship between wholesale price and international price ($p=0.0017$) at the 95% confidence level, as well as between production and wholesale price ($p=0.0437$), but no statistically significant conclusions can be drawn for the effect of liquid imports on wholesale price. As Brazil is reliant on wheat imports to meet its domestic demands, it is vulnerable to volatility in the international price of wheat and as wholesale price is also dependent on domestic production, this makes it vulnerable to projected decreases in wheat production in the country under climate change.

FIGURE 2: Production, Producer Price, Wholesale Price, International Price and Liquid Import of Wheat, Brazil, 1990-2010, base index 2007.

SOURCE: Authors own



This brief analysis shows two different mechanisms through which Brazil could be vulnerable to climate change impacts on its food security. Its reliance on the international market and imports of wheat make it susceptible to fluctuations in global prices. On the other hand, Brazil is potentially buffered domestically by a surplus production of maize for export. However at the same time, increases in production do not equate to decreases in price because of the inclusion of the international market as a buyer of surplus. Exports therefore have the effect of increasing domestic wholesale prices despite an increase in production. A rise in international prices, means it makes more sense to export and so domestic prices rise despite surplus production. Addressing this mechanism is crucial for ensuring food is still accessible in a food export-driven economy exposed to the vagrancies of the international market. In the converse situation, if production starts to decline under climate change as is projected, the loss in terms of trade could impact its ability to import staples, like wheat, which it does not produce in sufficient amounts to meet domestic demand. How the country builds resilience to this type of situation will have substantial impacts on international agri-business because Brazil is such a large agricultural exporter.

CONCLUSIONS

Although this study has provided only a cursory look at the possibilities of grounding socio-economic models of food security under climate change in historical data, it nevertheless provides insight into the relative importance of different mechanisms for translating price changes within the Brazilian food system. It also offers insights into where future research is required in order to produce a more holistic picture of the food system. Firstly, there is a need to include more crops (like those analysed in the Embrapa study, e.g. coffee, cassava, beans, soybean and sugar cane) which are considered critical contributors to the Brazilian food system. It would also be of critical interest to see what the chain of causality is between Brazil's production fluctuations and the international price of commodities for which it is one of the primary exporters (e.g. sugar cane, oranges and beans). Understanding its national impact on international prices would give key insight into the vulnerability of the global food system to production shocks in the country. It is also necessary to analyse the dynamics happening within the country at the State-level in order to fully appreciate the buffering capacity inherent in a country where production is spread across a large region for certain crops and is concentrated in smaller areas for others. The impacts of extreme events tends to be more localised and so having production spread across multiple state lines offers great capacity to these type of shocks and also offers justification for opening up regional free trade areas where the same concept of buffering can be applied (e.g. in southern Africa).

The application of this analysis to other countries is also important. It is necessary to contrast the findings of Brazil with those of a smaller, net food importing country like Zambia or a country with similar, but as yet

unrealised capacity like Mozambique, in order to see how these relationships apply across a broader scale and to what extent general trends can be identified. Grounding this type of food security analysis in historical data is fundamental if we are to project future scenarios of what the food security status will be in different parts of the world under climate change.

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GOVERNANCE FOR FOOD SECURITY UNDER CLIMATE CHANGE: STRATEGIC SHIFTS FOR THE FOOD RETAIL SECTOR IN BRAZIL AND SOUTH AFRICA

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ABSTRACT

Governance in the food system has become a key topic of discussion in light of the 2007-08 food price crisis. Of special import has been the shift to include the role that non-state actors are likely to play in achieving food security under global environmental change (GEC). This paper aims to compare private sector food system governance trends in two emerging economies, Brazil and South Africa. It focuses on practices around adaptation, an area largely neglected in climate change discussion, yet a critical factor in coping with the societal consequences of GEC. This study identifies several processes, particularly within the retail sector, that could indicate mechanisms through which 'good governance' can be translated into practice.

INTRODUCTION

A dominant shift in food system governance from the public to private sector has taken place, bringing with it questions of the role that non-state actors are likely to play in food system adaptation to global environmental change (Liverman et al 2009). Food security is underpinned by the system through which food is produced, processed, distributed, sold and consumed and is thus threatened when this food system is stressed (Gregory et al 2005). Over the past decade the number of undernourished people worldwide has steadily climbed upward, highlighting an already fragile global food system. The impact of global climate change is expected to be a major additional stressor over the coming years (FAO 2009).

The 2007-08 global food price crisis, followed by the financial crisis in 2008, has led to many discussions around governance issues and strengthening governance mechanisms for world food security (FAO 2009). The role of business in food security has also been identified as vital, resulting in a shift towards including the private sector as a key player in attaining food security goals such as the first Millennium Development Goal (MDG) of reducing poverty and hunger. One of the key documents highlighting this critical role is the UN Private sector food sustainability guide, which provides guidelines on where in the food system action is required and how businesses at all points along the value chain can contribute towards achieving sustainability in the food system with the object of global food security (UN 2009).

The role of business in climate change is, however, a far more advanced discussion, which to date has focussed largely on mitigation strategies for lowering carbon emissions, whilst adaptation has been centred on corporate social and environmental responsibility/carbon emissions transparency (Schelling 2007). Recently, some authors have critiqued this approach and have argued that climate change is now a business problem directly affecting companies operations, not just shareholder investment, which calls for a strategist's approach rather than that of a philanthropist (Porter and Reinhardt 2007).

Combining insights from both sides of the debate, this paper provides an analysis of governance for food security under climate change in the retail sectors of Brazil and South Africa. Using an Earth System Governance (ESG) approach focussing on adaptation, it investigates the main proposals for food security governance under climate change, identifies significant steps that are being proposed or undertaken in the retail

sector and compares these processes and their proposed impacts in the two countries. Through this process, it aims to start bridging the divide between theoretical concepts of governance involving the private sector and its implementation in corporate governance.

METHODOLOGY

This paper uses a two-step procedure. We first provide a synopsis of the concepts of governance and where ESG fits in relative to corporate governance. Secondly, we analyse the ongoing actions of three major food retailers in Brazil and South Africa that deal with climate change and food security issues. Our analysis is informed by the food systems group of the ESG project where they focus on food governance that is designed so as to maximize flexibility and adaptation to GEC that draws from local knowledge and institutions that facilitate adaptation at other scales (Biermann et al 2009). This is done through an analysis of company reports, websites and news articles. We then compare the findings for the two countries in order to identify trends in governance that could be used to bridge the gap between theoretical and practical conceptions of governance for food security under climate change in emerging economies.

The Private Sector and Food Security

As the food security literature has developed over the past 20 years, the role of functioning markets as integral to food security has become increasingly recognised, and with this, the role that the private sector plays within these markets and as a source of system resilience under stresses (Devereux and Maxwell 2001). Companies are involved at every point of the food value chain from inputs through to retail and are thus vital actors within the structure of the food system. Due to horizontal and vertical integration, these roles are often played by different arms of the same company, resulting in immensely powerful food clusters like that of Cargill, ADM and Bunge in the grain market (Meijerink and Danse 2009). Retailers also play a significant role because they have influence all the way down the value chain through. For example, their procurement policy affects what crops are lucrative and from where they are sourced. This is often based on which producers can meet their requisite quality and safety standards (Reardon et al. 2003; Arda 2007). On the other end of the spectrum, they determine what food products finally reach consumers as well as whom these consumers are, based on their location within the company's distribution network. Furthermore, the amounts of capital in these large-scale ventures, and their incentives to maintain a system in which they can continue to profit, provides the perfect opportunity for interrogating how private sector actors can contribute to the overall adaptive capacity of the food system.

Since the 1990s, Latin America has had a relatively well-developed food retail sector largely due to foreign direct investment (Reardon et al 2003). The Brazilian food retail sector is composed of more than five hundred companies, but most of the revenue is concentrated in a few major players. A survey from the Brazilian Supermarkets Association analyzing the twenty biggest supermarkets shows that the three major players (Walmart, Carrefour and Pão de Açúcar) are responsible for approximately 75% of the revenue currently topping R\$80 billion (ABRASNET 2010). In the 2009 Stores Global Powers of Retailing report, these companies placed 1st, 2nd and 106th respectively. With 85% of consumption happening through this channel, the sector is highly important for both the public and the economy of the country and we can also infer that severe impacts in its supply chain could lead to food shortages and a major loss of taxes. Therefore, studying how climate change impacts are dealt with by these actors, and how the government includes this sector in its Climate Change National Plan, is essential for understanding food security in the country where the main strategy is the government-led 'Zero Hunger' programme, which provides support to around a third of Brazil's population (FAO 2009). In this document, although the issue of food security is acknowledged, the assessment of impacts and mitigation/adaption proposals only contemplate the producers.

In southern Africa the retail sector is still underdeveloped, but there are pockets where it is growing (Reardon et al. 2003; Arda 2007). South Africa dominates the retail sector with two top retailers, Shoprite and Pick 'n Pay, leading domestically as well as in the rest of Africa. Although Johannesburg Stock Exchange (JSE) listed companies, they ranked 127th and 129th respectively in the Stores global survey making them extremely important players in the South African economy. The two companies completing the formal retail sector in South Africa are Woolworths and Spar with Massmart and Metcash being the two main wholesalers (Louw et al 2006). With growing urbanisation and a burgeoning middle class, food retailers play a significant role in the country

and are prime actors in the agri-food chain for innovation around development issues (Louw et al 2006) and potentially climate change adaptation.

Climate Change

Anthropogenic global climate change represents one of the greatest challenges for the 21st century, both in terms of mitigation (curbing greenhouse gas emissions) and adaptation (adjusting to the projected changes that are already likely to occur). Given the scientific uncertainty still surrounding the consequences of climate change, adaptation is a particularly difficult area to tackle because it requires action now for an unknown future. However, despite these uncertainties, the Fourth Assessment Report (AR4) of the International Panel on Climate Change IPCC (Easterling et al 2008) still reports robust findings that climate change will affect all four elements of food security (availability, access, stability and utilisation), although the biggest direct impact will be on agricultural production, which is what we summarise below.

As the climate changes, areas of land suitable for cultivating crops shift accordingly therefore making it necessary either to shift cultivation to another area or to cultivate a different crop more suitable to the new conditions. As this is a dynamic process occurring over many years, decision-making in this regard can be extremely difficult, and so the adaptation needs to take place throughout the supply chain. Climate change (represented in this case by rising average temperature, changes in rainfall and an increase in extreme events) is projected to have an unequal effect on global agriculture with developed countries likely to benefit from climate change due to increased productivity, whilst the developing world, with the exception of Latin America, is likely to face negative consequences (Fischer et al 2002). Africa is predicted to suffer the most because climate change will add stress and uncertainty to crop production where many regions are already vulnerable to climate variability (Slingo et al. 2005). Wheat production is likely to disappear altogether from Africa by 2080 (Fischer et al 2002) and significant reductions in maize production in southern Africa have been projected (Jones and Thornton 2003) with South Africa suffering the highest gross loss of 871, 500 tons of maize in 2055. Although maize (-28.5%) and wheat (-15.7%) are the two crops that are hardest hit in southern Africa, decreases in sugar cane (-5.5%) and soybean (-8.0%) production are also predicted to occur by 2030 (Lobell et al 2008).

In Brazil, a study from Embrapa (2008) shows declines by 2070 in both arable area and crop value of rice (-14,3%; -R\$530 million), maize (-17,42%; -R\$1,5 billion), cotton (-15,71%; -R\$401 million), coffee (-27,6%; -R\$1,7 billion), beans (-12,75%; -R\$360 million) and soybean (-34,86%; -R\$5,47 billion) even in the best case IPCC scenario with a temperature increase of 1.4°C to 3.8°C by 2100 (B2). Although an increase in both arable area and crop value is projected for sugar cane (+143,4%; +R\$24,3 billion) and cassava (+16,61%; +726,4 million) mainly due to new areas becoming suitable for these crops, this will not compensate for the losses from other crops and the impact that this will have on food security in the country.

Concepts of ‘Governance’

According to the United Nations Development Program (UNDP), governance is generally defined as a system of values, policies and institutions by which society organizes collective decision-making and the political, economic, socio-cultural and environmental actions occur through the interaction between state, civil society and the private sector (UNDP 2002). It further comprises the mechanisms, processes and institutions through which citizens and organized groups articulate their individual interests, assess their differences and exercise their legal rights and obligations (UNDP 2002). This is oriented towards a particular understanding of governance and can be linked to progressive developments from a hierarchical ‘management’ approach to a more ‘adaptive governance’ (e.g. see Brunner et al 2005). However, there are various types of governance even within this interpretation, all of which are ultimately influenced by international pressures and trends (UNECA 2007). Otobo (2000) conceptualizes these as a set of concentric rings, with the outer ring being political governance providing economic orientation and infrastructure, the next ring being economic governance providing the context with corporate governance lying in the centre. As such, it draws from trends in other spheres of governance, but at the same time functions within parameters specific to the corporation such as goals oriented towards profit-generation and investment.

This is encapsulated in the more practical definition of corporate governance as “a set of relationships and arrangements between company’s management, its board, its shareholders and other stakeholders” (OECD 2004: 11) although many other definitions exist (see UNECA 2007). It provides the structure and mechanisms for strengthening investor confidence by tracking company performance across a spectrum of indicators and is

therefore important not only for achieving company goals, but also for the smooth functioning of the market economy (OECD 2004). Corporate governance can therefore be understood to lie across a spectrum from the normative through to the more practical understanding around power-interactions and structure. An example on the latter end of the scale, Gereffi et al (2005) identify five types of global value chain governance based on the three variables of transaction complexity, the ability of transactions to be codified and the capability of the supply base. On the normative end of the spectrum lie initiatives like the Global Reporting Initiative (GRI) pioneered in 1997, which has generated international best practice norms around sustainability reporting and the establishment of the World Business Council for Sustainable Development (WBCSD).

We focus our analysis on the ESG concept of governance, which consists of a broad and inter-related system of regulations, both formal and informal, through the participation of a diverse network of actors whose main objective is to guide and direct the formulation of a normative context of sustainable development for the prevention, mitigation and adaptation to global environmental. The governance process is analyzed from the perspective of the interrelated problems of the *architecture* involved, the role of *agents* in the structure, the importance of *adaptation* to environmental changes, the need to ensure *accountability* and the examination of ways of *allocation* (Biermann et al 2009). ESG has its foundations in systems thinking which is employed when addressing “complex problems with multi-causality resulting from interactions among interdependent components” (Ericksen 2008: 237). As food systems are characteristically entities in which human and natural systems interact, Ericksen (2008) suggests that food systems can best be conceptualized as socio-ecological systems (SEs). This frames environmental change consequences for food systems in the context of socio-economic and political change in order to understand the effects of the multiple stresses that interact with food systems, which can sometimes make them or their components vulnerable (Ericksen 2008). Although a systems approach deals with the complex nature of food systems, it raises a related issue of defining the historically contested concepts of system vulnerability, adaptive capacity and resilience.

In this paper, the ‘*adaptiveness*’ element of ESG is of particular interest because it is oft overlooked due to the difficulties associated with defining what adaptive capacity is. Here, we define adaptive capacity as an element of system resilience, which allows it to change and thus cope with a *future* stress like climate change rather than to stresses that it currently faces, which make it vulnerable in the present. The ability to undergo the changes required to maintain food system resilience under future impacts will include an ability a) to adjust to a change, b) to buffer potential damages limiting its ability provide food security, and c) to take advantage of opportunities offered by this change (IPCC 2007). Adaptive capacity is the most dynamic element of vulnerability because it is where interventions can take place through strategic management and the anticipatory creation of new structures, policies and mechanisms to cope with projected changes. It is also where ongoing adaptive learning occurs at multiple levels. ESG combines these systems concepts and applies them to holistic thinking around governance.

However translating concepts like adaptive capacity from systems thinking to the more practical aspects of corporate governance is difficult. In this paper, we therefore aim to identify concrete examples of adaptive capacity within private sector actors in the food system as evidence of where overall ‘good governance’ trends can be developed. In the next section, we set out current practices and processes in the South African and Brazilian food retail sectors that can be said to underlie adaptive capacity and thereby identify mechanisms through which this translation of ESG can be incorporated in the more general understanding of good corporate governance by dealing with the critical issue of ensuring food security under climate change.

Governance in the Food Retail Sector

Brazil has a large history regarding the protection of the environment, although most of it derives from Government-led governance implemented through model environmental legislation. As environmental awareness increased, society began to demand a more active participation from companies and to question how sustainable their actions were. In Brazil, this movement culminated with the creation of Bovespa’s (Brazilian Stock Exchange) Corporate Sustainability Index which since 2005 functions as an investor tool to identify companies that are socially responsible, sustainable and lucrative. It is considered that these companies create long-term shareholder value as they are more prepared to face economic, social and environmental risks.

Government leadership is also particularly felt in the climate change discourse and through the Climate Change National Plan, the Working Group on Climate Change Impacts on Brazil and the Role of CONAMA in the adoption of adaptation measures. They comprise a portfolio of mitigating and adaptive actions in order to reduce, avoid, and eventually adapt to the many impacts of climate change. It is important to highlight that

mitigation is still the highest priority as it is the only means through which to halt or slow down the effects of climate change. However with some of the effects of a changing climate already becoming evident, the need for adaptation is becoming increasingly necessary. Even though most of the actions stem from the Government, it is possible to identify some being led by the private sector.

Similarly, the South African government has the 2004 Climate Change Response Strategy with sector specific plans for climate change mitigation and adaptation. The Climate Change Policy and White Paper is due by the end of 2010 and is aimed at building on a broad understanding of what a whole range of stakeholders can do to reduce GHG emissions. This document is clearly focussed on mitigation, which is indicative of the fact that at the government level, although there is a recognition of the importance of taking action on climate change, progress is slow. However, at the business level, much more cutting-edge activity can be discerned.

South Africa holds a unique position in Africa because of its relatively better-developed and globally-integrated business sector, which gives it a leading role in advancing good corporate governance in the region (UNECA 2007). One of the key developments in corporate governance in South Africa has been the establishment of the King Code on Corporate Governance (referred to as King I, II and III published in 1994, 2002 and 2009 respectively), which comprises a set of non-legislated principles and guidelines for company reporting in line with the GRI. The JSE requires all listed companies to provide a narrative statement on how (and if not why) they have complied with the principles and as a result South African companies have become regarded as among the best governed in emerging economies by foreign investors (IoD 2009). The institutionalisation of the governance principles in the King report has meant that the code has become a key mechanism for translating between new normative concepts of governance into practical standards implemented by company boards. This is clearly evidenced in the latest King Report where ‘Sustainability’ was incorporated as one of the 3 key aspects of the report: “Most importantly current incremental changes towards sustainability are not sufficient- we need a fundamental shift in the way companies and directors act and organise themselves” (IoD 2009: 9). In our survey of food retailers’ sustainability reports, this focus is clearly evidenced with ‘sustainability’ being incorporated as the 7th corporate value of Woolworths, which was also ranked 18 out of 399 South African companies analysed for their uptake of King III.

In February 2009, a food security forum that comprised an array of stakeholders from government through to academics, NGOs and business was convened in Johannesburg. This came just after the South African food sector had been rocked by allegations of collusion around fixing bread prices, which had led to various companies paying hefty fines after an investigation by the competition commission. Combined with the global food price crisis, the issue of food security in the country was brought into wide focus and the results from the forum showed evidence that a definite shift had occurred in how business recognised its role in ensuring food security in the country. The two retailers that were present (Pick ‘n Pay and Woolworths) have shown evident concern to develop their role in promoting sustainable behaviour, not only within their companies, but in the wider community.

Below is a summary table of some of the key projects being put in place by the leading food retailers in Brazil (Grupo Pão de Açúcar (GPA), Carrefour (CAR) and Walmart (WAL)) and South Africa (Woolworths (WOL), Pick ‘n Pay (PNP) and Shoprite Checkers (SCH)), which indicate a shift of governance to focus on sustainability issues with a particular focus on climate change and food security:

Table 1. Retailers’ actions regarding sustainability

Name	Classification	Governance Trends	Concepts of Good Governance
Brazilian Faces Program (GPA)	Adaptive Social	Social responsibility initiative developing capacity in the supply chain	Triple bottom line Local capacity building
Sustainable Connections (GPA, WAL, CAR)	Mitigating Adaptive Social Environmental	Incorporation of environmental and social issues into the business model Partnership with government	Triple bottom line Self-regulatory practices Partnerships
Logistics Projects (All)	Mitigating Environmental	Environment protection	Triple bottom line
Guaranteed Source Program (GPA, CAR)	Mitigating Environmental	Stakeholder engagement Incorporates whole supply chain	Triple bottom line Awareness raising Capacity building

Sustainable Food Initiative (CAR)	Adaptive Environmental	Creating customer awareness around sustainability issues in the food supply chain	Awareness raising
Product Development (WAL)	Adaptive Environmental	Stakeholder engagement Incorporates whole supply chain	Triple bottom line Capacity building
The Good Business Journey (WOL)	Adaptive Mitigating Social Environmental	Incorporation of environmental and social issues into the business model Broad engagement with all stakeholders	Triple bottom line Self-regulatory practices Business partner outreach
Eduplant (WOL)	Adaptive Mitigating Social Environmental	Partnership with an NGO (Food and Trees for Africa) Building adaptive capacity in communities through skills provisioning Focusing on food security holistically and in the long-term Utilising current sustainability practices	Triple bottom line Local capacity-building Human rights
Water Neutral Scheme (WOL)	Adaptive Social Environmental	Partnership with NGO (WWF) Partnership with government (Working with water programme) Long-term (20 year commitment) Adaptive to climate change as water scarcity is projected to be a key pressure on the region	Triple bottom line Local capacity-building Partnerships
Farming for the future (WOL)	Adaptive Environmental Social	Incorporates whole supply chain Empowers farmers All farmers that supply produce and aren't already organic have signed on to grow all crops in this way by 2012, therefore impact outside their own supply chain	Triple bottom line Human capital formation Business partner outreach
Development Fund (PNP)	Social	Social responsibility initiative developing capacity in the supply chain	Triple bottom line Awareness raising Business partner outreach Human capital formation Local capacity building
Organic Freedom Project (PNP)	Adaptive Social Environmental	Stakeholder engagement Creating customer awareness around sustainability issues in the food supply chain Long-term impact on supply chain	Triple bottom line Local capacity building Human capital formation Partnership

Source: Authors own

CONCLUSIONS

This paper presented an analysis of governance for food security under climate change in the retail sectors of Brazil and South Africa where major governance shifts around climate change and food security have been identified in various studies. In this way, the research used an ESG approach focusing on adaptation, although the overall issue of sustainability became an over-riding theme. As the two host countries of the UN Conference on Environment and Development in 1992 and 2002, Brazil and South Africa are critically placed for spearheading governance around climate change. This study reveals that although progressive steps have been taken, a lot remains to be done in this area.

In Brazil the top three retailers have many projects geared towards environmental issues, but even though food security is one the government's main concerns (e.g. the Zero Hunger Project) there are less private sector projects focussing on this issue. One of the possible obstacles to private sector action in this regard is that the Brazilian government has a dominant hold over all the adaptation actions in Brazil, indicative in governmental documents like the Climate Change National Plan as well as the role of CONAMA in the adoption of adaptation measures. On the other hand, in South Africa, although there is still relatively little exchange between the public and private sectors, the private sector is encouraged to take the initiative on social and environmental issues. Progressive legislation (E.g. National Environmental Management Act of 1998, Black Economic Empowerment Act of 2003) has been instrumental in mainstreaming environmental and social issues in the country, resulting in the development of sustainable business models that take into account these legislative pressures. Businesses have therefore taken the initiative to institute anticipatory projects that deal with social and environmental issues, both because there is an enabling environment to do so, but also because there is a dearth of capacity in the public sector to carry out this role. Social and environmental responsibility has thus landed on the shoulders of the private sector in lieu of government-driven social safety nets, which require vast resources and take time to implement. South African businesses have to a large extent stepped up to the plate, proving that in the presence of 'good governance,' market forces can be harnessed for driving change and building capacity within the traditional business model.

Although the sustainability arena is subject to a lot of window-dressing, there is evidence of trends towards 'good governance' in the food retail sector, most notably by Woolworths and Pick 'n Pay. These retailers are committed to sourcing 90-95% of their fresh produce from the local suppliers and have therefore instituted projects that build the resilience of the overall food supply chain in South Africa through various environmental and social upliftment projects, thereby securing their own interests. An interesting observation is that where there are projects that concentrate on building resilience within communities (thereby increasing adaptive capacity); these focus on the production end of the supply chain rather than on consumers. The only projects that involve consumers are those that raise awareness about climate change and sustainability issues, which is necessary, but only a cursory utilization of the power for change that retailers have on the consumption end of the chain. With increasing urbanization, looking at vulnerable consumers will be vital for any strategy concerned with climate change and food security.

A key conclusion that can be drawn from this brief analysis is how key events or 'tipping points' are critical is the transfer of 'good governance' norms (like those identified in ESG analyses) to corporate governance. In South Africa, the intersection of the high international food prices in 2007/08, the competition commission enquiries in 2008 and the King III report in 2009 created a perfect storm for triggering transformative progress around food security in the private sector. This was identified by specialists in the field and culminated in the food security workshop, which brought various stakeholders together to focus on the problem. The international hype around climate change has played a similar role for diverting attention to environmental and sustainability issues, however the focus of the private sector is still heavily on mitigation (Vogel 2009). It is therefore necessary to harness the energy around these processes to instigate a focus on climate change adaptation too, making sure that this is not seen as mutually exclusive to mitigation initiatives. The current projects aimed at social upliftment contribute significantly to overall adaptive capacity within the South African and Brazilian food systems, but as yet do not make the necessary links between various pressures to be seen as systemic solutions.

The relevance of these observations is not limited to the two countries under consideration. Two of the three major retailers in Brazil, Walmart and Carrefour, are part of a huge global supply chain and as such they are two of the biggest transnational food corporations of the world. These corporations have considerable potential for enhancing food security under climate change, but are still lagging behind in interpreting the 'adaptiveness' element of ESG into their operations. They therefore have a lot to learn from achievements that have been made in the South African market and then to transfer these internationally, creating industry norms. Further research using more in-depth studies around the opportunities and constraints offered by the ESG, climate change and food security discourses to these actors is required in order to construct a framework for establishing a governance for food security under climate change. This study showed that these adaptive trends are in evidence, but that they require refinement before they can become norms.

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TEN TEAMWORK PARADOXES AND IMPLICATIONS FOR 21ST CENTURY MANAGEMENT IN SOUTH AFRICA

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ABSTRACT

The main aim of this research was to explore and confirm teamwork paradoxes as perceived and experienced by members working in project-, management- and production teams. A mixed method research methodology was applied using a qualitative interpretivist approach, followed by a quantitative confirmation of findings. Twelve teamwork paradoxes identified from a qualitative thematic analysis, were developed into a survey questionnaire and administered to 152 team members in various types of teams. The data analysis confirmed ten paradoxes as mutually relevant to project- and management teams, within contemporary South African organisations. These paradoxes are explained in terms of managerial implications for teamwork.

INTRODUCTION AND BACKGROUND

More organisations are embracing a team approach in their quest to improving organisational efficiency and effectiveness and meet the demands of workplace challenges. The dynamics of teamwork in the current challenging organisational environments are posing even more challenges. Most managers in today's collaborative and consultative environments need to develop teams and team leadership to achieve good results through others. Robust teams assist managers and they make organisations stronger, but the converse is also true – inadequate teams severely weaken organisations.

Although there are many perspectives regarding teamwork, the general enthusiasm for teams and what they can accomplish remains zealous. Already in the 1990s, no fewer than 82% of companies with more than 100 employees reported using team structures (Gordon, 2002). As a consequence of the popularity of teams, it seems as if a large number of practitioners and team building “experts” are entering the market, offering “recipe” solutions and hoping that it will facilitate teamwork.

No wonder that some authors are sceptical about the true value of teamwork. In what they call “the romance of teams”, Allen and Hecht (2004:437) suggest that teams are not necessarily the answer to all managerial problems. They remark that empirical data on team effectiveness are not as impressive as the theories on teams suggest. Naquin and Tynan (2003:2) express a similar view in an earlier article where they speak about “The Team Halo effect”. They further suggest that team complexities are not fully understood when teams are implemented. Mueller's (1994) argument is supported in that many of the difficulties arising in organisations attempting teamwork initiatives arise through a lack of appreciation of the unique sets of historical and cultural legacy into which it is being introduced.

In this paper the current teamwork paradoxes in contemporary South African organisations will be explored and approaches that could assist managers in achieving an understanding of the complexities and subsequent paradoxes faced by project and managerial teams will be discussed. The researchers of this study have been involved with teams and team interventions for more than 25 years, *inter alia*, as trainers, training manager, business consultants and organisational development (OD) practitioners. In their years as practitioners,

they have conducted hundreds of team interventions and advised many clients on the most suitable team approach for their organisation. However, the realisation that team interventions do not always seem to work came to the fore. In many cases complexities and dynamics hinder optimal team development. *This phenomenon is fascinating and needs to be explored to understand exactly how individuals experience teamwork on multiple levels in the current South African business environment, which is challenging and complex from a historical and cultural point of view.*

In our view, understanding teamwork in the current South African organisational context requires an acknowledgement of the fundamental paradoxes inherent in teamwork. In this paper, we use the concept of paradox to identify and describe the tensions and contradictions experienced by members of teams within 21st century organisations in South Africa. Our research questions are:

- What are the paradoxes experienced by team members in 21st century teamwork?
- How do different types of teams experience these paradoxes?
- What are the managerial implications in these paradoxes?

Our empirical analysis identified ten universal paradoxical conditions, prevalent in different types of teamwork. Our findings define a new underlying principle of contemporary “teamwork” that needs to be understood and further explored in 21st century management if teamwork is utilised or perceived as an enhancer of organisational efficiency and effectiveness. These paradoxes are explained in terms of its managerial implications. Before discussing the details of our study, the concept of paradox and prior literature that addresses paradox in organisations and teams are being briefly reviewed.

LITERATURE REVIEW

Understanding Teamwork

It became apparent from our literature review and research within companies that three apparently distinct forms of teamwork are commonly in use, which corresponds with the findings of Parry, Tranfield, Smith, Foster, and Wilson (1998:169). These teams being the “Self Directed Team” or management team, and its purpose is to create greater flexibility and innovation in permanent work groups. In such applications, companies frequently use empowerment in an attempt to improve levels of local commitment and accountability. The second form, which we call the “Production Team”, is found in companies operating a “lean production” system with total emphasis on quality, continuous improvement and productivity. Here, a tightly coupled production system demands teamwork to ensure maximum waste reduction, and to manage an essentially fragile system. The third form, is the “Project Team”, commonly found in concurrent/simultaneous engineering and consulting, and its purpose is to sustain cross-functional teamwork across internal organisational boundaries with the objective of integrating and compressing development time scales. We therefore agree with Parry *et.al.* (1998:169) that teamwork is ‘best understood in terms of overall organisational patterns rather than through analysis of narrowly drawn sets of team properties’.

Understanding paradox

A paradox is a specific type of challenge, being a contradiction, that has proven useful in developing insights into a variety of organisational phenomena (Poole & Van de Ven, 1989; Lewis, 2000; Chae & Bloodgood, 2006). All contradictions refer to statements that express or assert the opposite of another statement. In a paradox, two conditions are stated to exist together when this seems logically impossible.

Because paradoxes involve the juxtaposition of logically opposed statements, resolutions are likely to be uneasy and temporary. For example, Cameron (1986) suggests that effective organisations must possess contradictory attributes. His study reveals the paradox that effective organisations emphasise past traditions while simultaneously experimenting with innovations. Sustaining paradoxical practices inevitably sustains inherent tensions rather than resolves them. Based on this reasoning, we expect that members of teams would continue to experience the enduring tensions between opposing elements. Thus, rather than ‘resolving’ paradoxes, members may more accurately be said to be coping with or ‘surviving’ paradoxes and management

must realise and manage the implications of paradoxes in teamwork (Dubé & Robey, 2008:6). When these paradoxes are not very well managed they can provide negative teamwork experiences discouraging individuals from continued participation in teams. Negative team experiences create negative attitude toward teamwork that are transferred to the workplace (Pfaff and Huddleston, 2003; Ruiz Ulloa & Adams, 2004).

Research methodology

In answering the research questions the research methodology followed was mixed methods with an initial qualitative interpretivist approach, followed by a qualitative confirmation of findings. The research design, being exploratory and descriptive, guided the researchers in selecting this research methodology.

For the qualitative part of the study in exploring the paradoxes in teamwork, we conducted intensive open-ended interviews with team leaders and members of various types of teams in multiple South African organisations. This approach was instrumental to gaining access to a variety of member experiences instead of reports from members of only a few teams. To be a potential respondent, a person had to be or recently have been either a project manager or team member for at least three years.

We used a purposive and convenience sampling technique inclusive of a snowball sampling approach to identify additional respondents. At the start of data collection, many respondents referred us to others in their own or other organisations. Since qualitative research seeks a deeper understanding of social behaviour and phenomena, the need is for focused and usually smaller samples as opposed to random, large samples (Giddens, 1990). The most important indicator for sample size when conducting qualitative research, is often the point of redundancy, also called theoretical saturation of the data. Our final qualitative sample comprised 21 team members and ended when we reached a point of theoretical saturation where nothing new was learned. In this sample the majority of participants had an average of 6.5 years of team work experience and acted as team leader (56%). The sample represented the following industries: Consulting (IT, management, engineering) '44%, Manufacturing (21%), Telecommunications (10%) and Mining (25%).

For the quantitative part of the study we developed a survey questionnaire from the quantitative results comprising of the twelve teamwork paradoxes as in Table 1. We utilised a convenient sample approach of which 152 responses were received. Descriptive statistics were done, as indicated in Table 2 to determine the most prevalent paradoxes experienced by participants.

DATA ANALYSIS AND INTERPRETATION

Qualitative data analysis

Our data analysis for the qualitative part relied on the basic premises of content and thematic analysis (Weber, 1985; Boyatzis, 1998:1), interview analysis (Kvale, 1996) and the use of data reduction methods (Miles & Huberman, 1994). Each transcript was carefully reviewed with the definition of paradox or contradiction in mind, and notes were taken to document evidence of contradictory statements. At the end of this twelve paradoxes were evident as described in Table 1.

Quantitative data analysis

The 152 responses received were measured on a seven-point Likert scale ranging from 1 (Not true) to 7 (Very True). The majority of participants in this sample were part of project teams (55%), male (54%) indicated that they enjoy working in a team (63%) but that the concept of teams are not working in their organisation (77%). The data was statistically analysed and confirmed ten paradoxes as mutually relevant to project- and management team members, participating currently in teamwork. The results (in percentage) are reported in Table 2 below.

Table 1: Team paradoxes experienced by team members in contemporary 21st century organisations

1. Strong individuality (independence), but also strong team player (interdependence)
2. Teams need freedom and creativity (flexibility), but also clear guidelines and norms (structure)
3. Teams suffer from an information overload, but do not communicate enough
4. Work harder and smarter, but also maintain a work-life balance
5. Teams are important, but our systems do not support teamwork
6. Team development and continuous learning is a priority, but there is limited resources (time or budget) for these interventions
7. Having fun whilst deliver results
8. Relationship building, whilst delivering results (People - versus Task orientation).
9. We introduce virtual teams, but fail to re-define virtual teamwork
10. We hire for skills or IQ, but expect emotional intelligence
11. We implement team activities, but fail to create a team culture
12. We say we embrace change through teamwork, but we do not comprehend “flux”

Table 2: Descriptive results of the team paradoxes

		7= Very True					1=Not True	
		7	6	5	4	3	2	1
1	Be a strong individual but also be part of a strong team	61.31	21.90	15.33	0.73	0.73	0.00	0.00
2	Teams need freedom and creativity but also clear guidelines	49.34	30.92	14.47	3.29	1.97	0.00	0.00
3	Teams suffer from an information overload, but do not communicate enough	30.92	31.58	27.63	5.26	4.61	0.00	0.00
4	Work harder and smarter, but also maintain a work-life balance	38.16	38.82	15.13	7.24	0.66	0.00	0.00
5	Teams are important, but our systems do not support teamwork	19.33	12.67	18.67	6.67	13.33	16.00	13.33
6	Team development and continuous learning is a priority, but there is limited resources (time or budget) for these interventions	19.08	10.53	6.58	3.95	16.45	20.39	23.03
7	Having fun, whilst deliver results	23.33	21.33	24.00	3.33	12.67	10.67	4.67
8	Relationship building, whilst delivering results.	25.00	19.74	23.68	4.61	15.79	7.89	3.29
9	We introduce virtual teams, but fail to re-define teamwork	13.82	19.74	14.47	3.95	15.79	20.39	11.84
10	We hire for skills or IQ, but expect emotional intelligence	29.61	31.58	16.45	7.24	11.84	3.29	0.00
11	We implement team activities, but fail to create a team culture	43.79	26.80	24.84	0.65	1.31	1.96	0.65
12	We say we embrace change through teamwork, but we do not comprehend “flux”	27.52	24.16	22.82	4.70	10.07	10.07	0.67

From Table 2 it is evident that ten team paradoxes are prevalent. The majority of respondents did not identify item 6 (i.e. *Team development and continuous learning is a priority, but there is limited resources (time or budget) for these interventions*) and 9 (i.e. *We introduce virtual teams, but fail to re-define teamwork*) as team paradoxes. A brief description of the ten identified paradoxes is presented in the next section.

Description of findings and explanation of paradoxes

From the quantitative analysis 77% of team members indicated that teamwork did not work as it is supposed to work in their organisations, resulting in non-delivery and a waste of resources. The lack of managing the paradoxes contributes to this negative perception of teamwork in South Africa. The majority of teamwork 55% are within project teams, which is an approach adopted by various organisations who were not traditionally

involved in project work. This leads to the premise that teams are created without understanding the possible paradoxes that need to be understood and managed for optimal team performance.

In understanding the paradoxes and managerial implications a brief description of each is provided.

Strong Individuality, but also strong team player (independence versus interdependence)

Organisations do not realise that a multitude of behavioural and other changes must occur for teams to succeed. Most of us grew up in an environment where individual performance and competition were stressed. Our school grades were determined by our own performance and we obtained employment based on our individual skills and personality. Moving from a “solo” or independent to a “team” or interdependent paradigm does not happen overnight. Individuals may never have seen the advantages of working in teams, yet they are expected to be part of these teams and produce immediate results. Hence, 21st century organisations need to facilitate this transition if teamwork is ever to succeed. Hyman (1993) points out that, underlying every other responsibility in the team, is the implied responsibility of each individual in that team not to jeopardise the team’s goals. That means that there has to be team goals, that these goals need to be respected and that team members need to share these goals. However, if there is not a culture of trust, support and general empowerment, this cannot be done and individuals will continue to act as individuals instead of as part of a team.

Teams need freedom and creativity, but also clear guidelines and norms (Flexibility versus structure)

Interviewees expressed the need for empowerment and to be allowed to generate new ideas. Kazanjian (2007:21) observes, “opportunity is pure oxygen” for teams. Teams need a chance to try something new, to put their combined skills to work and to generate their own successes. At the same time, however, they want clear guidelines and well-defined team roles and responsibilities. This means that a 21st century team leader has to guide without taking over the team and has to empower teams without giving them too much freedom. Aspects like the nature of the work, the skills levels and the emotional maturity of the team should be the guiding principles.

Teams suffer from an information overload, but do not communicate enough

Teams in 21st century organisations often feel overwhelmed by all the information they receive. It adds to the work overload they experience and, instead of empowering them, it threatens them. The need is clearly for communication as opposed to information. Teams want to be acknowledged, understood and communicated to. E-mails are not a preferred way of communication, and especially virtual teams expressed a need for regular contact and short, focused communication sessions. Katzenbach and Smith (2001:31) argue that teams should be given the opportunity to choose the manner of expressing them- by speaking or in writing, “an option that often produces both richer discussions and input and dialogues with fewer interruptions”.

Work harder and smarter, but also maintain a work-life balance

Smith (2007:105) jokingly comments that, leaders “need to demonstrate work-life balance (No problem; work is their life!)” This quote might be meant tongue in the cheek, but we have found that many leaders tend to believe and live Smith’s quotation. Thus, 21st century organisations expect teams to be highly successful and, in many cases, to take on greater workloads than before. Quite often vacant positions are not filled immediately since the expectation is that the team is strong enough to take on the challenge. Targets are often increased without consulting team members, which adds to the expectation that teams should just work harder and smarter in order to reach those goals. Amid this job stress, teams are expected to live a balanced life, be healthy, have energy at all times and be living examples of overall “wellness”. Christie (2004:25) suggests that risks and problems in the workplace can be successfully addressed through employee assistance programmes and well as multi-professional support teams. He views this as the organisation’s way of maintaining human resources by addressing both the physical and mental needs of teams. However, a programme in isolation cannot make a difference. All the leadership practices in the organisations should reflect the focus on human capital and the respect for human resources.

Teams are important, but our systems do not support teamwork

Leadership openly expresses support of teamwork and collaboration in contemporary organisations. Quite often, when this team approach toward business problems is implemented, the performance management and other systems are still geared towards the individual. This is an obvious misalignment and adds to the fact that

employees are unsure about what is expected of teams. The ideal is to ensure that all systems, be it leadership, performance management or communication systems, are designed to manage and support team efforts.

During interviews in this study individuals frequently expressed themselves by referring to “me” and “I” when questions about what the team would suggest. This boils down to the overall culture is still individualistic rather than team-driven. Reward systems are also highly individualistic and do not support team work in most organisations. Organisations should hold teams mutually accountable, but the recognition and reward systems should be aligned to this. The biggest problem is that “compensation systems are designed to reward individuals, and gain sharing programmes are designed to reward large groups. “Small group achievements seldom fit into these programmes” (Katzenbach & Smith, 2001:137).

Have fun whilst deliver results

Many organisations still believe that fun and business results are two separate entities on a business continuum. However, employees expressed a strong need to feel that their work is fun and that they are allowed to enjoy it. In his study of Enterprise, America’s number one car rental company, Kazanjian (2007:204) points out that one of the secrets to Enterprise’s success is the fact that a culture has been created where individuals and teams can have fun. He notes that this sense of enjoyment spills over to the client and “builds camaraderie and strengthens individuals’ ability to effectively work together as members of a unified team”.

Relationship building whilst delivering results

Dutton (2003:8) argues that good relations in organisations are crucial in that “high quality connections are marked by mutual positive regard, trust and active engagement on both sides. Corrosive connections, on the other hand, make it more difficult for employees to do their work ...low-quality connections cause distractions that make it difficult for people to engage fully in their tasks”. Even though relationships are important, it takes time, and, in many cases, money, especially where special team interventions are involved. Leaders seem to expect teams to operate optimally, without allowing for any special “team time”. They soft-soap teams with “an annual team-building if the budget allows it” and hope that mutual respect and collaboration will follow automatically.

We hire for skills or IQ, but expect emotional intelligence

Organisations that have flatter structures and that operate on a virtual basis place very high demands on the emotional intelligence quotient (EQ) of their employees (De Vries & Ketz, 2005:62). In this 21st century culture, coaching and commitment should replace the “old” culture of command and control. However, this seems to be missing. Although the organisation expects independent and dynamic behaviour from teams, they do little to support employees at a non-technical level. Many interviewees expressed the need to “be able to speak to someone” or the feeling of “being lonely”, even though they are nominally part of a team. Since the relevant industries are highly specialised, the greatest criterion for hiring and assessing remain technical skills. Yet, when it comes to managing teams, leaders expect employees to be emotionally mature and have the ability to be assertive in difficult situations.

We implement team activities, but fail to create a team culture

When interviewees were asked why they work in teams, more than once, the answer was “because that is the way we are structured”. Only one individual admitted to ever experiencing synergy in a team. Some teams I interviewed never actually fully engaged in teamwork, and in many cases, they merely shared information. Nadler (1992) calls this “synthetic teamwork”, and I found that especially the specialist groups tended to act as synthetic groups rather than as teams. In many cases, groups of specialists expressed a level of superiority, and used their focused skills as an excuse for not being part of the team.

It seems as if 21st century organisations are often so set on becoming team-based organisations that they often do not define teamwork or consider what it means in their environment. Katzenbach and Smith (2001:43) further note that, in contemporary organisations, “change initiatives (often) stress the number of teams created as the measure for success – more is better”. This leads to the implementation of teams and teamwork without a clear link to strategic goals and organisational challenges.

We say we embrace change, but we do not comprehend “flux”

Companies seem to claim that they understand change and its impact on individuals and teams. Both companies studied implement change programmes and have continuous innovation as part of their vision statements. However, change is often not fully understood. **Flux**, according to Steger, Amann and Maznevski (2007:5) is “change that has a changing nature”. Today’s solutions for business problems may be outdated tomorrow and change can occur in all directions at one, and at “faster and faster rates”. Teams are faced with growing diversity where nothing is stable anymore. “The future is no longer the prolongation of the past – industry breakpoints that fundamentally alter the value proposition in industries occur more rapidly (Steger *et al.*, 2007:6). Management in contemporary organisations need to empower themselves more in order to facilitate this flux and guide individuals and teams through these ever-changing times.

CONCLUSION AND RECOMMENDATIONS

The **ten** team paradoxes identified from this study brings a new dimension to teamwork in 21st century organisations in that it suggests a ‘new’ underlying principle of modern teams and “teamwork” that need to be understood and further explored. The biggest challenge is to figure out what strategies to employ in order to optimally manage these paradoxes. Managerial challenges in coping with team paradoxes represent positive means by confronting them rather than denying their existence or avoiding them (Monat & Lazarus, 1985). As stated by Lewis (2000) denying paradoxes disregards their inherent contradictions, thus encouraging tensions to intensify through cycles that reinforce defensive reactions.

There is a huge amount of information on teams, and all this available literature in itself is a tremendous challenge for those who seek to remain updated in their understanding of the literature. Findings can, and should not, be generalised. Many interpretations were made based on the personal experiences of specific participants, which will also make transferability difficult. However, to generalise was never the intention. This study was undertaken to create a new meaning and to reach an understanding of team expectations in the current South African context. This research has an interpretative character, aimed at discovering the meaning that events have for specific individuals. These experiences are interpreted by the researcher, which might raise the question of objectivity. The relatively small sample might be a limitation, although the depth could facilitate further studies in this field. The findings are not representative of all teams in all organisations, and the identified paradoxes are not necessarily typical of all teams.

To conclude, it can be said that teamwork makes business sense in 21st century organisations. If implemented correctly, teams can save time, make money and assist organisations in reaching organisational goals. However, contemporary organisations and its management who want to use a team approach need to understand the new context in which teams have to contribute, invest time in their development, reward them appropriately and ultimately support them. The ten team paradoxes should not be eliminated by management, but need to be understood as they are intrinsic to the current ‘new team paradigm’.

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THE PERFORMANCE OF SMALL INFORMAL TOWNSHIP STORES, INDEPENDENT MEDIUM AND LARGE RETAILERS CHAIN IN SOUTH AFRICA ON THE PHYSICAL DIMENSION OF RETAIL SERVICE QUALITY

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ABSTRACT

Retailers should examine the nature of their service offerings, and appropriately acknowledge the effect of the relevant service dimensions on the satisfaction of customers. This paper investigates and compares the performance of small informal township stores, independent medium and large retail chains in South Africa, with regards to the physical dimension of their service delivery. The main findings were that the locations of the respective retail stores were adequately situated. On the contrary, shoppers at small township stores should consider providing written evidence of purchases, while Independent food stores should ensure that adequate parking is available. Larger chain stores can increase the market share if located closer to public transport. Conclusion and management implications are presented.

INTRODUCTION

Service quality is crucial for service providers to position themselves effectively in a highly aggressive retail environment. Compared to the other strategies employed by retailers, service is a strategic element that can be used effectively by retailers of any size. A small or medium sized retailer usually cannot differentiate itself from its competitors by means of price strategy, but rather with a superior or unique service strategy (Swoboda, Haelsig, Morschett & Schramm-Klein, 2007). Focusing on service delivery is a key strategy when operating in markets that offer similar products in the stores, commonly seen in grocery retail stores. When faced with larger, powerful retail competitor, smaller stores could compete by improving service instead of competing on price (Klemz & Boshoff, 1999).

Retail service quality has a significant influence on consumers' behavioural intentions such as the probability of recommendation, repeat purchase, switching and complaining. Recent studies confirmed the interrelationship of perceived service quality and some of these behavioural consequences including: customer loyalty (Zeithaml, 2000), customer retention, customers' willingness to act as a reference and customers' willingness to accept price increases (Fullerton & Taylor, 2002). Thus the assessment of services quality delivered is imperative for all retailers whether they are large formal chain stores or small informal retailers.

Several international studies on service quality in the retail sector have been conducted and published recently, including a chain of department stores in Hong Kong (Sui & Cheung, 2001) discount retail stores in the USA and Korea (Kim & Jim, 2002:223-237), supermarkets and electronic goods retailers in Singapore (Mehta, Lalwani & Han, 2000), supermarkets and clothing stores in South Africa (Terblanche & Boshoff, 2004) and the importance of service quality in building a strong retail environment across five retail sectors in Germany (Swoboda, et al., 2007). Nevertheless there exist limited published studies on service quality determinants of

different sizes of retail stores and almost none about the service delivery of informal retailers in developing countries.

This study focuses on the tangibility dimension of services deliver to customers from three different size of grocery retailers specifically small informal town ship stores, independent medium stores as well as larger chain stores. To delivery service quality and obtain profitability retail managers should examine the nature of their service, and appropriately acknowledge the potential consequences of all the dimensions of retail service quality. The physical aspects of services or tangibility play an important role in consumers' expectations and perceptions with regard to service quality. The significance of tangible and intangible elements is more multifaceted and complex than previously assumed therefore further research is needed (Santos, 2002).

Tangibles are the physical elements of a service, and include aspects such as the appearance of physical facilities, tools and equipment, personnel, communication material. These physical aspects of a service have a significant effect on perceived service quality and the level of importance of tangibility varies according to types of service (Santos, 2002). According to Bitner (1995) the physical environment will have a significant influence on customers' perception of service experiences, because customers are involved in the production and consumption process of a service. The physical surroundings of service settings is often used by customers as an indication of the firms' competency and ability to deliver quality before they even purchase from them. The question then is do customers supporting smaller or informal stores in South Africa actually experience dissatisfaction with the physical surroundings compared to customers supporting medium franchises or larger chain stores.

This paper seeks to explore concepts such as the informal and formal sector, service quality and the physicals aspects in retail services, in order to compile a conceptual framework within which service delivery by small, medium and large retailers in South Africa is considered. The paper then goes on to briefly describe the research methodology and to highlight the main findings of the research and concludes with some practical recommendations for retailers of various sizes. . The following section will discuss the nature of physical aspects in retail service quality.

THE IMPORTANCE OF PHYSICAL ASPECTS IN THE DELIVERY OF SERVICE QUALITY IN A RETAIL STORE ENVIRONMENT

Several instruments to measure customers experience in the retail environment are suggested in the literature. One of these is SERVQUAL a popular model for assessing service quality based on expectations performance ratings. Parasuraman, Zeithaml, and Berry (1988) developed this model to assess customers' expectations of service provision as well as their perceptions of what had actually been delivered. Service quality or satisfaction is assessed by comparing what customers want or expect with their perception of what they receive. The SERVQUAL model comprises five dimensions of service quality, namely Tangibles, Reliability, Responsiveness, Assurance, Empathy (Berry & Parasuraman, 1991).

However several authors are of the opinion that existing measurements of service quality including SERVQUAL do not effectively capture customers' perceptions of service quality in the retail environment. A number of studies propose improved or new instruments to capture all the dimensions unique to a retail setting of the goods of and services. Due to the failure of SERVQUAL to be fully adapted and validated in a retail store setting that offers a mixture of services and goods. Dabholkar et al. (1996) developed and empirically validated an instrument based on SERVQUAL to measure service quality in a retailing environment. This instrument, known as the Retail Service Quality Scale, only use performance-based measures and was developed from a study on US customers' perceptions of department stores. This instrument captures additional dimensions unique to the retail environment and is one of the most widely used and accepted scales to specifically measure retail service quality. Mehta, Lalwani and Han (2000) are opposing to the use of measurement scales that has been developed for other service industries. They emphasise that the original SERVQUAL should not be applied unmodified to measure retail service quality, because an instrument that accurately measures the retail service construct should

preferably be used. In their study it is suggested that the Retail Service Quality Scale is more suitable for retailers selling goods with limited customer service such as supermarkets compared to SERVQUAL.

Although all the retail dimensions were measured for all the retail stores in this study only the physical aspects or tangibles dimensions have been analyzed for the purposes of this paper. It has been argued that the single most important difference between services and products is the characteristic of intangibility and this has a significant influence on the marketing management of services (Grönroos, 1990). This often makes it difficult for customers to evaluate service quality and, as a result, more complex for firms to understand how consumers perceive and evaluate a service. Intangibility implies that a consumer's perception of quality is often based on physical evidence and price rather than the core service. Physical evidence refers to the environment in which the service is delivered and where customers interact with the firm by means of tangible commodities that facilitate performance or communication of the service (Zeithaml & Bitner, 1996). This implies that the physical aspect of retail store can certainly influence the service experience of shoppers.

International as well as local studies reveal the importance of physical attributes in the delivery of service quality in retail. Venter and Dhurup (2005) measured the service quality delivered by one of the largest supermarkets chains in South Africa. Physical surroundings were found to be one of the main predictors of overall service quality and consumers' behavioural intentions. Although the findings of this study contribute to understanding the nature of service in supermarkets in a developing country, it might not be valid for other types of retailers or smaller food stores such as small independent stores, franchises or spaza shops. Sui and Cheung (2001) measured the service delivered by a chain of department stores in Hong Kong. Physical appearance was identified as one of the five dimensions in the factor analysis. Of these dimensions the physical appearance also had a significant impact on overall service quality and future consumption behaviour of customers.

PROBLEM STATEMENT

As pointed out in the literature, retail service quality has a significant influence on consumers' behavioural intentions such as the probability of recommendation, repeat purchase, switching and complaining.

The perceived service quality is interrelated to behavioural consequences including: customer loyalty customer retention, customers' willingness to act as a reference and customers' willingness to accept price increases. Thus the assessment of services quality delivered is imperative for all retailers whether they are large formal chain stores or small informal retailers. A critical issue is the lack of information on how service quality is perceived by customers in informal as well as formal retail setting. This study will therefore explore this issue from a developing country perspective.

RESEARCH OBJECTIVES

The primary objective of this study is to determine the level of satisfaction with the overall service quality provided by small informal, medium independent stores and formal retail stores in South Africa. More specifically, the study was guided by the following specific research objectives:

The following secondary objectives were formulated:

- To evaluate the expressed levels of satisfaction of respondents shopping at Small township Food stores (Spaza & Tuck shops);
- To evaluate the expressed levels of satisfaction of respondents shopping at Independent medium Food stores (Cafés & General dealer);
- To evaluate the expressed levels of satisfaction of respondents shopping at Larger Chain or franchise Food retailers (Grocery Chain stores & franchises) and
- To determine whether there are significant differences between the levels of satisfaction of the three mentioned sample groups.

RESEARCH DESIGN AND METHODOLOGY

Data collection and sampling

With non-probability sampling population elements are selected on the basis of their availability or because of the researcher's personal judgment that they are representative. For this study a combination of judgment and convenience sampling were applied. Hundred and fifty final marketing students were trained as interviewers for this project. They were instructed to compile a detailed list of all the small township food stores or tuck shops, independent medium food store and larger chain or franchise food retailers within 10km of where they live. The total list of more than 750 different stores included 302 (40%) small township food stores or tuck shops, 153 (20%) independent medium food store and 303 (40%) larger chain or franchise. For that reason sixty of the 150 interviewers were assigned to the small township food stores or tuck shops, thirty interviewers to small township food and sixty interviewers to larger chain or franchise food retailers. The interviewers were instructed to approach five respondents the chosen store/shop after their shopping experienced and interview them outside or close to the store/shop. Interviewers were also supplied with an official covering letter to assists them in obtaining permission from the shop owner and customers. Of the 750 questionnaires issued, 655 usable questionnaires were returned, with 247 completed by customers at small township food stores or tuck shops, 143 completed by customers at independent medium food store and 265 completed at larger chain or franchises.

In developing the data gathering instrument, an extensive literature review was conducted, including a review of several empirical studies on measuring service quality within a retail shopping environment. From this, forty seven statement (or items) measuring six different service quality dimensions were selected. Statements were structured so that each could be rated using a 5-point rating scale, where 1 = strongly disagree; to 5 = strongly agree. In addition to the service quality items, the questionnaire also included questions for recording the demographic characteristics of respondents, such as gender, highest educational qualification, and population group.

□ Internal reliability of composite dimensions was confirmed by means of a Cronbach's alpha. The findings regarding the internal reliability of the tangibility construct that consists out of 14 items' coefficient alpha value for this subscale was 0.87.

□

□ The standardised item alpha for the tangibility scale was calculated as 0.85 that exceeding the suggested level of 0.7 as recommended by Nunnally (1978).

□

Data analysis and results

The demographic profile of respondents is as follows:

- Ninety-one per cent (91%) of shoppers interviewed were black African (91%). This is representative of the South African population.
- Of the 604 black African shoppers, 40% shopped at Small township Food stores (Spaza & Tuck shops; 21% shopped at Independent medium Food stores (Cafés & General dealer) while 39% shopped at Larger Chain or franchise Food retailers (Grocery Chain stores & franchises).
- Females made up 56% of the total sample while the majority of respondents (34%) indicated that they had at least a high school education.

Information in table 1 shows results pertaining to data gathered about the location, structure and service provided by the shop. Of the 655 shoppers interviewed, 60% of them were customers at shops located within informal settlements. Over 50% of the store structures of the Small township food stores were erected in a room or garage attached to a house. 62% of the Independent medium food stores are located in a formal structure/ brick building which implies a structure that meets the requirements of the building regulations as approved by the Metropolitan council. The same applies to 100% of the Larger chain food stores. The type of customer service at the Small township food stores is mainly (60%) over a counter while 48% of the shoppers at Independent medium food stores are served through self help. All of the shoppers at Large chain food stores are served through the self help method. Only 46% of Small township food stores have a cash register, while 71% of the Independent medium food stores have this facility followed by 95% of large chain food stores. This clearly reflects an increase in sophistication as one move toward the formal sector. '

Table 1: Location, structure and service of stores/outlets

		Small township Food stores		Independent medium Food stores		Larger Chain or franchise Food retailers	
		N	%	N	%	N	%
Sample size	655 Shoppers	247	38%	143	22%	265	40%
Area of store	Formal areas	148	60%	100	70%	265	100%
	Informal / Rural areas	99	40%	43	30%	0	0%
Location store	In a shopping mall	0	0%	0	0%	66	25%
	In a local shopping centre	0	0%	36	25%	146	55%
	In the central business district	30	12%	93	65%	56	21%
	Other	217	88%	14	10%	0	0%
Type of structure of	Brick building in backyard	49	20%	26	18%	0	0%
	Room/garage attached to house	124	50%	27	19%	0	0%
	Inside main house	17	7%	0	0%	0	0%
	Shack on stand	25	10%	0	0%	0	0%
	Metal container on stand	20	8%	0	0%	0	0%
	Formal structure/ brick building	12	5%	89	62%	265	100%
Type of customer services at store	Served over a counter	128	52%	54	38%	0	0%
	Served through a window	101	41%	20	14%	0	0%
	Self help	17	7%	69	48%	265	100%
Equipment in Store	Refrigeration facilities	195	79%	126	88%	265	100%
	Deepfreeze facilities	148	60%	109	76%	265	100%
	Cash register	114	46%	102	71%	265	100%
	Bar code scanner	0	0%	14	10%	252	95%

FINDINGS

According to table 2 respondents that shop at Small township food stores and customers that shop at independent medium food stores were most satisfied with the location of the store as indicated by the relatively high mean. Shoppers at larger formal franchise outlets rated it second in terms of satisfaction. No statistical significant difference was measured between the three sample groups.

Respondents that shop at Small township food stores rated the inside of the store/shop's cleanliness as the second most satisfied variable in the tangibility construct. Shoppers at the Independent medium food stores and shoppers at Larger chain retailers rated this variable in fourth and fifth place respectively. Significant differences were measured between shoppers at Small township stores and shoppers at Larger chain stores and between shoppers at Independent medium store and shoppers at Larger chain retailers. Shoppers at small township stores rated the neat appearance of the employees as third most satisfied variable in the tangibility construct. This was rated in second place by shoppers at the Independent medium food stores and in eight position by the shoppers at Larger Chain retailers. Statistical significant differences were measure between all three groups. Thus none of the respondents in the sample groups showed any similarities in terms of the level of satisfaction that was experienced.

Table 2: Level of satisfaction of the tangibility construct as service quality determinant

Tangibilityo	Small township	Independent	Larger Chain		
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	Food stores		medium Food stores		or franchise Food retailers			
	Mn Rank order	SD	Mn Rank order	SD	Mn Rank order	SD	F	Sig
The location of the store/shop is convenient	4.301	0.84	4.301	0.90	4.312	0.80	0.005	.995
This store/shop has modern-looking equipment	3.218	1.31	3.813	1.10	4.283	0.77	53.6	0.000
The physical facilities are visually appealing	3.218	1.10	3.529	1.07	4.107	0.80	54.04	0.000
The inside of the store/shop is clean	3.712	0.95	3.724	1.03	4.125	0.84	15.53	0.000
The employees appear neat	3.563	1.00	3.852	0.91	4.078	0.71	21.77	0.000
The employees are appropriately dressed	3.405	1.06	3.625	1.01	4.125	0.73	39.87	0.000
Communication material is attractive	3.1511	1.10	3.2412	1.12	3.8511	0.87	28.53	0.000
The food on the fresh food display	3.494	1.03	3.586	1.05	4.019	0.84	16.89	0.000
Clearly specified sales slips are given to customers	2.6214	1.48	3.4510	1.46	4.421	0.77	121.19	0.000
A broad variety of brands are offered	3.227	1.14	3.557	1.17	4.134	0.85	50.56	0.000
Adequate levels of stock are kept	3.1710	1.10	3.4411	1.09	3.8710	0.95	29.49	0.000
The prices of products are clearly visible	2.9812	1.33	3.2313	1.27	3.8312	0.98	34.01	0.000
Adequate customer or public parking is available	2.7313	1.32	2.9314	1.36	3.7313	1.04	43.54	0.000
Adequate public transport	3.256	1.32	3.548	1.29	3.5414	1.11	3.483	0.31

The variable that was rated last in terms of satisfaction by shoppers at small township stores is Clearly specified sales slips. This was however rated first by shoppers at Larger chain retailers and in 10 place by shoppers at Independent medium food stores. Statistical significant differences were measure between all three groups that resulted in different opinions. Shoppers at Independent food stores rated Adequate customer or public parking in last place while shoppers at Larger chain retailers rated public transport to the shop in last position.

CONCLUSION

The primary objective of this study is to determine the level of satisfaction with the overall service quality provided by small informal and formal retail stores in South Africa and to determine whether there are significant differences between the groups. It appears as if the convenient location of the shops is pointed out as the most satisfactory variable in the tangibility construct for both small town ship stores and independent food stores, both informal settlements. The reason for this is probably that these outlets' biggest advantage due to their size, makes it possible to locate as near as possible to their customers. This location may sometimes be questionable from a legal point of view as it often happens that informal traders occupies any available space that is often not permitted by the metropolitan council. The location of the store for shoppers shopping at the larger chain retailers was rated second best in terms of the shoppers level of satisfaction (while clearly specified sales slips were rated first). It appears as if shoppers select retail stores that are conveniently located for shopping purposes, mainly because it is close to their homes.

The cleanliness of the inside of the store was rated second in terms of satisfaction by shoppers shopping at small township stores. These shops are normally small and do not allow shoppers to enter the shops. Selling normally

takes place through a window and the overall cleanliness can easily be controlled by the owners. The neat appearance of the employees was rated as second most satisfactory variable in the tangible construct by shoppers shopping at independent food stores. This might be caused by strict measurements applied by the management of these retail outlets.

The least satisfied variable in the tangibility construct rated by shoppers shopping at small township stores is clearly specified sale slips. This problem can be overcome by owners of these informal outlets to at least provide a form of receipt in writing to indicate what was bought as evidence of what the money was used for. One should take into consideration that the poorer part of the community is at stake here. Adequate customer or public parking was pointed out as least satisfied variable by the shoppers at Independent retail stores. A large proportion of the sample answered this question which implies that many shoppers are not satisfied with this variable. Public transport was rated as least satisfactory variable by the shoppers at Large chain stores. The majority of respondents responded to this question which implies that almost all of the respondents felt this way. The possibility of applying measures to do something about this issue should be investigated carefully in terms of the feasibility of any actions to improve the situation. This should be considered against the background that more than 20 million South Africans use public transport on a daily basis. Major steps are under way to improve public transport in South Africa. The recent developments in the South African public transport industry are significant with the planned upgrades of bus, taxi and rail commuter centers and systems (Provanage, 2010). These improvements will surely enhance the lives of economically active South Africans and should also be kept in mind when planning future retail developments.

In general it seems as if respondents are fairly satisfied with the majority of services related issues that relates to the tangibility construct received from informal and formal retailers under investigation. Action plans could be initiated to address the most important issues when deemed necessary. The findings also show evidence of the literature that companies should be careful to follow a standardised marketing approach, but should rather customise their offerings for specific markets.

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MARKETING INFORMATION SYSTEM INNOVATION: A SURVEY OF SOUTH AFRICAN TOUR OPERATORS

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ABSTRACT

The objective was to determine if South African tour operators would support marketing information system (MkIS) innovation. Tourism is dynamic in nature and it is unascertained what the information needs and MkIS innovation requirements of tour operators are. One thousand tour operators were invited to participate in this study. The questionnaire was viewed by 360 tour operators and a completion rate of 42.45% was obtained. Only 59.6% of the tour operators indicated that they do have some sort of information system.

Tour operators indicated that they need marketing environment-related information. Eighty percent would support an innovated MkIS that operates from a central location on a national basis. This study established that tour operators need marketing information and MkIS innovation. These findings could form the basis for tourism decision-makers and MkIS developers. Information system innovation would be beneficial to tourism in South Africa.

INTRODUCTION

South Africa is a year round tourism destination with exciting opportunities for tour operators. However, tourism is dynamic and tour operators are faced with extreme survival challenges and tour operators should be knowledgeable about the environments they operate in (domestic and internationally). An exhausting search failed to reveal studies focussing on South African tour operators and their marketing information needs and their marketing information system (MkIS) innovation requirements remain unascertained.

The global growth of tourism places demands on tour operators and tour operating develop into a more complicated business than ever before. Tour operators need to be flexible and adaptive, “if they don’t they won’t survive” (Skyrme, 2000:3). Tour operators should embrace information technologies as a core dimension of strategic decision-making and a tour operator’s ability to make informed decisions is founded on available information. Obtaining and maintaining an information system requires capital investment and should be planned strategically (Earl, 2000; Turban *et al.*, 2004; Curtis & Cobham, 2006). However, it is debateable whether tour operators do invest in such technology. This creates opportunities for research and the focus of this paper is on tour operators and sets out to determine: their view on a MkIS’s ability; their marketing information needs; MkIS requirements; and their susceptibility towards innovated marketing information systems.

There are four parts to this paper: firstly, the literature regarding technology and information systems is reviewed; the research methodology then follows; thirdly, the findings are presented, discussed, and interpreted; and the paper concludes with a discussion of the theoretical and managerial implications, as well as directions for future research.

LITERATURE REVIEW

South Africa is seen as a 'new' destination since the political changes after 1994 and offers vast opportunities for tourists and tour operators as tourism arrival figures show a continuous growth. This brought about changes to the business environment in South Africa, especially in tourism. Tour operators need to adapt to and keep up with the dynamic nature of the broader and global business environment they are now part of.

The success of tour operators is based on effective decision-making, and this is determined by the quality and appropriateness of available information. A MkIS would be a solution for tour operators' management challenges (Laudon & Laudon, 2000:10) and will enable tour operators to select information that is relevant, applicable, and to manage the quantity and quality of information.

Technological change "have been transforming tourism globally" (Buhalis & Law, 2008), especially information and communication technologies (ICT) and this continues to cause transformational effects. It is further reported that very few publications on tourism and technology appeared prior to 1990 and the importance of information technology (IT) was emphasised by Bennett (1993) who indicated that "there is considerable untapped potential for the travel agent to use IT", and this also applies to tour operations.

Information is "the lifeblood of tourism" (Buhalis, 1998) and change will force tourism businesses to utilise IT and recommends that technology should be utilised in tourism by adopting a strategic approach because unprecedented opportunities will emerge through IT. Research was conducted by Wood (2001) who indicated that small- and medium-sized tourism enterprises "make use of informal marketing information systems which mainly concentrate on internal and immediate operating environment data. Important wider market intelligence is underutilised, owing mainly to the resource constraints of these smaller businesses. The Internet has not yet been considered as an important source of market intelligence". Could this be applicable to tour operators in South Africa?

Buhalis and Licata (2002) warn that the Internet creates opportunities for new electronic tourism intermediaries (eMediaries) through the Internet, interactive television, and also by means of mobile devices; and that traditional eMediaries (this is relevant to tour operators) should reengineer their business processes. ICT develops at an accelerating rate and wider application materialised as it is adopted by tourism businesses. Ritchie and Ritchie (2002) proposed guidelines for the establishment of a comprehensive state/provincial destination marketing information system (DMIS) for the tourism industry in Alberta, Canada, based on a mandate for greater public-private sector partnership for the benefit of Travel Alberta (the provincial destination marketing organisation) and local tourism operators. Would tour operators in South Africa be interested in an information system that operates from a central location on a national basis? It would be beneficial if a similar type of information system could be considered for tourism in South Africa.

The evolution of technology continues to place more importance on information because "growing market dynamics raise information needs" (Wöber, 2003). However, official and governmental information systems do not provide for the special information requirements of end-users (tour operators). Lassnig (as quoted by Pike, 2007) indicated in a paper presented at the 13th ENTER conference in 2006 (Lausanne, Switzerland) that "the tourism industry lags behind other sectors in e-business applications."

A literature review of academic publications, journals, and electronic databases revealed that a MkIS is viewed as an important supporting tool for marketing management. However, an exhaustive literature search failed to reveal research conducted on marketing information systems (MkIS) for tour operators. Could this be ascribed to the modern trend of integrating information systems into a single and comprehensive decision-support system?

Marchand, Kettinger and Rollins (2000:12) profess that "what differentiate today's high-performing companies are the capabilities and behaviours associated with effective information use." Tour operators who have functional information technology could "generate an analysis of consumers' behaviour" because this will "facilitate and improve the customisation of services" (Acıar *et al.*, 2007). A sophisticated marketing information system contributes towards the increased importance companies (tour operators in this case) place on their customer support "while the cost factor diminishes" (Andronikidis *et al.*, 2008).

Environmental variables compound the difficulties tour operators face in their endeavours to anticipate opportunities and threats. Gounaris *et al.* (2007) profess that information systems “improves functional effectiveness and corporate climate and....adaptability to market conditions”. Tour operators can thus align their business outcomes according to the conditions of their markets, should they have and utilise a MkIS. A MkIS consist of four components (Kotler, 1997; Tustin *et al.*, 2005; Kotler *et al.*, 2010) – internal records, marketing intelligence, research, and data analysis. Tour operators should investigate the possibility of establishing MkISs that link up with other networks, information system innovation. This is referred to as interconnectedness (ICT) – making their tourism offerings globally available through a single point of contact and information is then relayed into a MkIS.

This literature review alone is sufficient evidence of why tour operators ought to acknowledge the necessity of having a sophisticated marketing information system as a management tool.

METHODOLOGY

The aim was to discover how tour operators view the ability of their information systems to provide them with information concerning the four components of a MkIS, the marketing information needs of tour operators, their marketing information system requirements, and to determine their susceptibility towards an innovated marketing information system. A descriptive research design was followed for the purpose of this paper and an analytical survey method was utilised to collect primary data by means of questionnaires and analysing it statistically.

The focus of this study is on tour operators in South Africa (research population or universe). A sample frame (a list of 1 539 tour operators) was compiled and the web-based survey was limited to a sample size of 1 000 e-mail invitations. Tour operators who did not respond to the first invitation received a reminder e-mail, and a second reminder was sent to those who still did not respond. No further reminders were dispatched and a completion rate of 42.45% was achieved after being viewed by 360 tour operations. The research instrument used was a web-based self-completing questionnaire and six incentives were made available to increase the response rate. Responses were automatically captured into a database.

Single response questions and Likert scales with a series of statements to which agreement ranging from ‘Strongly agree’ to ‘Strongly disagree’, as well as the importance placed on statements ranging from ‘Extremely important’ to ‘Extremely unimportant’ were used. Provision was also made for as limited number of open-ended questions.

The data obtained from the questionnaire was validated by QuestionPro.Com and *descriptive statistics* for every variable was obtained for the purpose of understanding the data and to determine the type of analysis to perform, due to the type of variables. A cross analysis was performed on linked and test variables to determine whether they compare. A uni-variate descriptive analysis was done on all the original variables to obtain frequencies, percentages, cumulative frequencies, and also cumulative percentages. The following *inferential statistics* were used: Cross-tabulations and Chi-Square based measures of association (if in some cases there were expected values of less than 5 in the cells Exact p-values were then calculated to ensure that the correct conclusions are drawn from the statistics); MANOVA (Multivariate Analysis of Variances) and ANOVA (Analysis of Variances); and the Tuckey’s Studentized Range (HSD) Test.

RESULTS

The main findings of this study will now be dealt with.

Participant profile

The profile of tour operators is described as: tour operators mostly have some sort of a computerised information system (59.6%); the majority operate from small tour operations (61.4% with up to five staff members), they focus on the international incoming market (69.9%); and have equally been in business for up to five years

(31.05%) and between six and ten years (31.05%). Further statistical analysis did not reveal any statistically significant differences between the different types of tour operations (Chi-Square=2.7058; p-value=0.4392; Exact test p=0.4368), the number of years tour operations have been in existence (Chi-Square=5.4092; p-value=0.1442; Exact test p=0.1457) and the size of tour operations (Chi-Square=2.8409; p-value=0.2416; Exact test p=0.2411) as determinants of whether South African tour operators do have/do not have a marketing information system.

Existing MkIS abilities

Respondents were requested to indicate if their existing marketing information systems do provide them with information about the four components of a MkIS (every statement refers to a specific component of the marketing information system). The results obtained are indicated in Table 1.

TABLE 1 INFORMATION SYSTEMS AND MARKETING INFORMATION
SYSTEM COMPONENTS (in %)

MkIS Component	Internal Records	Intelligence	Research	Analysis
Strongly agree	8.6	12.9	14.5	14.3
Agree	22.4	29.0	24.2	25.4
Neither agree nor disagree	27.6	30.7	33.9	30.2
Disagree	34.5	21.0	19.3	22.2
Strongly disagree	6.9	6.4	8.1	7.9
TOTAL	100%	100%	100%	100%
Mean	3.09	2.79	2.82	2.84
Standard deviation	1.10	1.12	1.15	1.17
Variance	1.20	1.25	1.33	1.36

Tour operators' current MkISs do not provide them with information from internal sources (34.5% indicated 'disagree') and the inference is made that the same applies to information concerning marketing intelligence (30.7%), research (33.9%), and 30.2% who indicated that they 'neither agree nor disagree' that their information systems facilitate the analysis of information. Further statistical analysis, the ANOVA test, indicate that there are no statistically significant differences between the size of tour operations, the type of tour operation and the number of years tour operations have been in existence as determinants of whether or not tour operators' information systems do provide them with information about the four main components of a MkIS because all Chi-Square p-values are >0.05 and this is confirmed by the Kruskal-Wallis Test p-values.

Respondents were requested to indicate the importance (ranging from 'Extremely important' to 'Extremely unimportant') they place on a MkIS's abilities by means of five related statements. The results suggest that tour operators view the purpose of a MkIS as 'Important' in terms of the flow of information (42.3%), for training (42.3%), providing decision-makers with information (42.3%), providing reports (42.3%) and obtaining interdepartmental information (42.3%). This was followed by the next highest indication – 'Extremely important'. Combining the responses 'Extremely important' and 'Important' and expressing it as a percentage of the responses per statement, tour operators then view the flow of information (75.0%) as the most important purpose of a MkIS, although 13.5% of the responses indicate that they do not view the constant processing of daily records and analysing it into reports as an important purpose of a MkIS. However, there are some tour operators who take a neutral and even negative stance towards the purpose of a MkIS. This could have a negative impact on any tour operation when the importance of an information system's ability of providing marketing-related information is taken into consideration.

Further statistical tests did not reveal any statistically significant differences between the size of tour operations, the type of tour operations and the years tour operations have been in existence (all ANOVA p-values are >0.05 and this is confirmed by the Hotelling-Lawley Trace test, size – p=0.06050; type – p=0.9052; years – p=0.5365) as determinants of how tour operators view the importance of a MkIS's ability to provide them with management information.

Information needs of tour operators

Tour operators were provided with the opportunity to express their perceived information needs and the responses received were grouped according to the variables and factors of the marketing environment. The following results were obtained: *firstly*, market environment-related information (40%) with an emphasis on consumer information and this was followed by competitor information. However, this is in contradiction to the results obtained when tour operators indicated that micro marketing environment information as the most important.

Secondly, tour operators need macro environment information (30%), especially concerning technological changes, legal/political forces, economic factors, and lastly about social and cultural factors.

The *third* type of information needed is grouped under 'Other' (17%) and responses received refer mainly to a general overview of the tourism industry. The *least* needed information concerns the micro environment (13%). This can be ascribed to the fact that tour operators do have an information system (word processing software) that provides them with basic information about their tour operation, being it financial or operational or customer-related information. However, this does not constitute a contradiction to the importance tour operators place on information concerning the micro marketing environment. The inference can be made that tour operators view this type of information as important but that this type of information is not currently the information they need the most. Marketing-related information did receive a number of mentions and refer to a system that will integrate information, information that will guide their pricing and price changes decisions, trends in the market, and also relationship marketing.

Expectations of a MkIS

Tour operators could improve their decision-making by using information systems which acquire, validate, and process data, and to supply, communicate and store valuable information in an organised and purposeful manner. Tour operators were requested to express their expectations about information systems and they indicated that it is equally important (37%) that an information system should be easy to use and must be reliable. This is just as important to tour operators whose responses were grouped together as 'Other' (37%) and some of the expectations expressed are: information about customers and markets, must aid with placing and keeping offerings in the market, and must link local and international tour operators. The control and management aspect of an IS received the least mentions and this relates to the large percentage tour operators who indicated that they are satisfied with their current information systems.

MkIS innovation

The focus of information and communications technology (ICT) is on interconnectedness (networks) that will make tourism offerings globally available through a single point of contact, which is then relayed into an IS. Innovation, in terms of ISs, refers to adopting technological development.

The innovated information system used in this survey is only an example and the idea originated from the TourMIS system and the Illinois Tourism Network (ITN). The results obtained suggest that 80% of tour operators would support an innovated information system. Tour operators were requested to provide their reasons for and against an innovated MkIS that operates from a central location on a national basis. The results indicate that tour operators would support such an innovated MkIS if such a system could be easily accessible (39%) and contain quality, updated and cost-effective information. Such a system is also viewed as beneficial as it could lead to new/more business opportunities and markets (32%). The least mentioned reason why tour operators would support such a system is based on time and money (29%). The reasons provided for not supporting an innovated MkIS are that tour operators are of the opinion that such a system will not add value to their current business (71%), followed by their concern for security and the confidentiality (29%).

The above results indicate that operators are susceptible to innovative ideas and it is recommended that this issue should be further explored with stakeholders in the tourism industry. The discussion provides insight on how tour operators view MkISs in terms of their information needs, their expectations regarding an IS, and their willingness to adopt innovative MkISs.

DISCUSSION

The aim of this study was to investigate the marketing information needs; the MkIS requirements; and the susceptibility of South African tour operators towards innovated MkISs.

Summary of findings

The results obtained indicate that many tour operators do have a computerised information system but their information systems do not provide them with information about the four components of a MkIS. It is recommended that note should be taken of the two considerations mentioned by Holloway (2004:64) that have to be addressed before an IS can be utilised to its full potential: *firstly*, it has to be carefully determined what management decisions need to be taken; and *secondly*, it has to be ascertained what information is needed to be able to make those decisions.

Satisfying the information needs of tour operators should be based on systematic thinking and the collection and processing of appropriate data into information that would enable tour operators to improve their decision-making. Tour operators need to redefine their data and information needs, to refine the methods applied to obtain data and also how this is processed into needed and/or required information. All tour operators are involved in an ongoing process of gathering information, whether informally or formally. The process of awareness of what is taking place in tourism can only be supported by a systematic and scientific formal procedure – the marketing information system. This system will ensure that a tour operator collects regular and planned information, analyse it, and disseminate it to designated decision-makers.

Managerial implications

South African tour operators are positively predisposed towards marketing information system innovation and the inference is made that tour operators cannot afford the capital investment due to the profile descriptors of tour operators in South Africa. It is recommended that the private and public sector under the auspices of the Tourism Business Council of South Africa (TBCSA) and the Department of Environmental Affairs and Tourism (DEAT) further investigate the possibility of establishing a national marketing information system that operates from a central location. This development should take the requirements and fears of tour operators into consideration.

Not only tour operators, but all role players and the entire tourism industry in South Africa should perceive information as “an important asset” (Laudon & Laudon, 2000:4; 2006:4) that is expected to “rise above 50 percent of total private business investment.” This implies that “information is a resource that can be managed”, according to Hinton (2006:43). Information will in future become essential for the survival and success of tourism within the prevailing and subsequent tourism business environment.

Limitations and directions for future research

Some limitations might be related to this study. Firstly, this was a pioneering study undertaken and additional elements could be added to fully research the marketing information needs and information system requirements of tour operators in South Africa, such as their willingness to share information and their willingness to pay for information.

Another potential shortcoming in this study is method bias. A single questionnaire was used to research all the constructs included and future research should consider more questionnaires that are focussed on in-depth analyses.

A third limitation is related to the research culture in South Africa’s tourism environment. The focus of this study was on tour operators and excluded all other businesses dispersed over all the other sectors of tourism (accommodation, transportation, attractions, service providers, and destination marketing organisations). Future research could include all the sectors to be able to investigate the marketing information system needs and requirements of tourism in South Africa.

CONCLUSION

The vision of the 1996 White Paper on the Development and Promotion of Tourism in South Africa was “...to develop the tourism sector as a national priority in a sustainable and acceptable manner, so that it will contribute significantly to the improvement of the quality of life of every South Africa[n]. As a lead sector within the national economic strategy, a globally competitive tourism sector will be a major force in the reconstruction and development efforts of the government” (DEAT, 2002:3). Marketing information and innovated marketing information systems will enable tour operators to achieve their business objectives and collectively tour operators and the tourism industry can aim for reaching the vision of government.

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MILLENNIUM DEVELOPMENT GOALS AND SUB-SAHARAN AFRICA

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ABSTRACT

For a long time, the proportion of people living in the sub-Saharan Africa (SSA) in extreme poverty has been oscillating about 50 percent. In 2000, the UN Millennium Development Goals initiative (MDG's) was launched to help reduce this figure. One of the goals of this UN project between 1990 and 2015 is to halve the proportion of people living below the 1\$-a-day poverty line. In what follows, we would like to determine whether this goal is being met. The UN attributes the main reason of the SSA poverty to a low degree of savings and capital accumulation. The official development assistance (ODA) is then seen by the UN as a tool to reduce this poverty. We will put this development-aid logic to an empirical test.

INTRODUCTION

Adam Smith was first to ask about the reason for some nations being richer the others trying to discover the origin of the *wealth of nations*. Even today, this problem is of paramount importance. According to the UN 2009 MDG Report, almost one billion people in the world are suffering from hunger and malnutrition while 1.4 billion people are stricken by extreme (absolute) poverty defined by a one-dollar-a-day line (the up-to-date extreme poverty line is 1.25-dollar-a-day, 2005 PPP). In the light of these facts, identifying the reasons for the *wealth of nations* appears to be extremely important.

In 2000, the United Nations launched a new Millennium Development Goals (MDG's) initiative to combat world poverty. Redistributing tens of billions of dollars in Official Development Assistance (ODA), MDG's is now the world's largest development programme. The MDG's consist of eight major goals with the progress towards each goal monitored by a relevant set of indicators. There is also an exact time line assigned to each millennium development goal. Globally, all the goals should be achieved by the end of 2015. This paper deals with the first millennium development goal trying to eradicate extreme poverty and hunger. In particular, we will concentrate on Target 1. A: Halve, between 1990 and 2015, the proportion of people living in extreme poverty. The paper thus aims to judge to what extent this target is being met and, if necessary, to identify the reasons for its non-fulfilment. We shall deal with sub-Saharan Africa (SSA) since this region, has marked the least improvement despite the development aid already received. While the extreme poverty line in East Asia has dropped below 20 percent from 80 percent since the early 1980's, it is still at 50 percent in sub-Saharan Africa (WB, 2008).

ECONOMIC ASPECTS OF THE MILLENNIUM DEVELOPMENT GOALS

To evaluate the extent to which the MDG's (their first target in particular) have been achieved, their underlying economic principles need to be established in the first place. Here, an economic theory is seen as the least common denominator providing a common platform for both the MDG supporters and opponents. The question is then, whether there is an underlying economic platform of the MDG's.

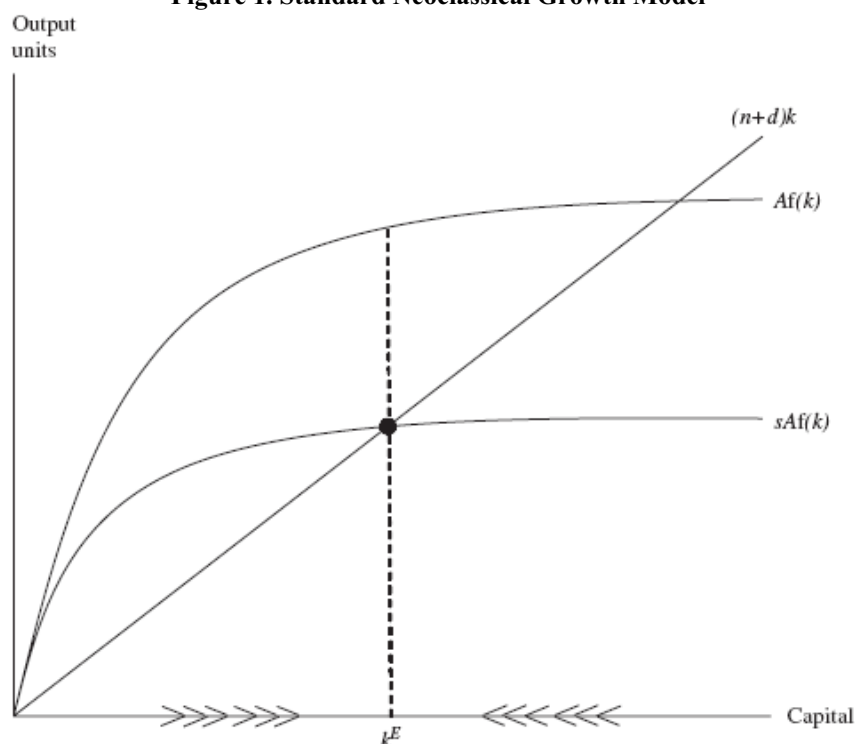
The document best explaining the economic logic behind the MDG's is the UN report, Investing in Development: A Practical Plan to Achieve the Millennium Development Goals, as well as other reports such as

those by Sachs, et al. (2004) and Sachs (2005), in which some aspects are dealt in more detail: the (insufficient) capital accumulation and saving rate in the development countries.

Appointed by the UN secretary-general in 2002, it was Jeffrey Sachs who became the manager of the Millennium Project, a UN subsidiary body for the achievement of the MDG's. Thus, Jeffrey Sachs and his team provided the main economic principles of the MDG's later fully adopted by the UN. The underlying economic theory behind the practical steps taken by the UN in support of the MDG's is the standard neo-classical growth model or Solow model as interpreted by Jeffrey Sachs emphasizing the role of saving for long-term economic growth. According to Jeffrey Sachs, the SSA countries have been trapped in poverty as a result of low national saving rate. He maintains that insufficient saving rate has been caused by the extreme poverty of people living in SSA as well as by their high population growth rate, which aggravates the already poor per-capita capital/labour ratio. Both factors slow down the capital accumulation in sub-Saharan Africa.

Thus the basic theoretical background of the MDG's rests on a standard neoclassical economic-growth model. A description of such a neoclassical growth model can be found, for example, in Barro (1997). To explain the causes of not only the SSA poverty, Sachs uses this model in which the per-capita output (q) is given by the capital/labour ratio k as determined by the differential equation $dk/dt = sAf(k) - (n + d)k$ with s denoting the national saving rate, d the capital depreciation rate, and n the population growth rate, assuming a constant technology level A (Sachs, et al. 2004). Figure 1 is a graphical representation of the above equation.

Figure 1. Standard Neoclassical Growth Model



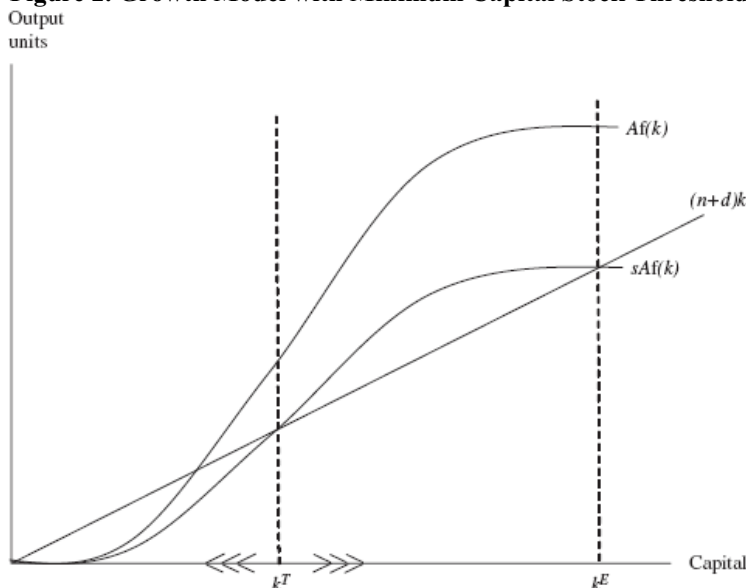
Source: Sachs, et al. 2004: 124

The per-capita income grows while the per-capita savings are greater than the capital depreciation and the population growth rate as given by the expression $(n + d)k$. Sachs maintains that a standard neo-classical model automatically assumes that economy grows even with k being very low (right next to zero) as seen in figure 1. In this case, a positive capital accumulation equals the vertical distance between the saving curve $sAf(k)$ and the capital depreciation and demographic change $(n + d)k$ straight line. In such a case, both k and q start growing from the very beginning tending to a steady-state equilibrium of capital reserve k^E .

Sachs sees the basic neo-classical model of economic growth (Figure 1) as providing an inadequate explanation for the poverty of the developing countries (especially those of sub-Saharan Africa). He claims that people living in extreme poverty hardly earn enough to be able to put anything aside while the low national saving rate is

insufficient to help them get out of the poverty trap (actually a low-saving trap). Moreover, he adds, without good infrastructure and qualified labour force, a slight increase in k (capital/labour ratio) has only a negligent positive effect on the income of individuals. For a (higher) economic growth to start, the capital/labour ratio needs to be raised above a minimal capital threshold k^T as illustrated by Figure 2.

Figure 2. Growth Model with Minimum Capital Stock Threshold



Source: Sachs, et al. 2004: 125

Only when an economy has a k above a minimum threshold k^T does it tend to achieve economic growth and converge to the steady-state capital reserve k^E and per-capita income q . *"The very poor indeed get poorer, pushed into more extreme poverty by the lack of capital accumulation coupled with population growth. Only when an economy has a capital-labor ratio above a minimum threshold k^T does it tend to achieve economic growth and converge to the steady-state k^E and q^E ."* (Sachs, et al. 2004: 127). However, poor households cannot save since they need all their income to stay alive. *"Once basic needs are met, poor households may save quite a lot of income, but not before."* (Sachs et al. 2004: 126). Low saving as the main cause of sub-Saharan poverty has also been recognised by the UN. Once the main cause of the income poverty in the SSA has been identified, the ways should be determined of combating the low saving rate in SSA for this region to be capable a sustainable economic growth. This is dealt with by a UN strategy called a Big Push.

BIG PUSH AND OFFICIAL DEVELOPMENT ASSISTANCE

In approaching the problems of MDG's, the big-push strategy foresees a massive financial help (ODA) for the developing countries. If Africa's capital/labour ratio is below k^T and only a slow or negative economic growth is marked, according to Sachs or the UN, this is a clear indication towards greater official development assistance in order to raise the capital/labour ratio above the critical limit k^T . In this model, external funding (ODA) is a temporary substitute for insufficient domestic savings, which helps the economy to get above the minimum capital/labour ratio necessary to start economic growth. Thus the official development assistance plays the role of a "first cause", which, through public budgets, sets in motion a spectrum of projects such as those for new schools improving the human capital and making it more productive. A more qualified labour force and capital in general increase the production potential of an economy, which in turn increases the incomes of households and individuals. In addition to helping people to get out of poverty step by step, increased incomes of households will bring the government more money in taxes, which in turn may be reinvested to improve education, for example. This is a concise description of how the big-push system should work. It is clear that, in such a system, the initial presence of ODA is a necessity as it is exactly the funding it provides that helps make the initial investment in education, health care, etc., thus starting further capital accumulation, which eventually leads to economic growth and increase in per-capita income. Jeffrey Sachs says the following to the method of increasing

the development assistance in SSA: *"If aid is to end the poverty trap, it must be large enough and maintained long enough to raise k above k^T . Small or short-lived flows of aid will accomplish little This basic point is important and widely misunderstood. It is often said that past aid to Africa has little to show for it. In fact, there has been too little aid to make a difference."* (Sachs, et al. 2004: 145). How much more official assistance is then needed for the Millennium Development Goals to be achieved by the end of 2015? In his study, Shantayanan Devarajan calculates an estimate of \$ 40 to 60 billion in annual contributions, Devarajan (2002).

We have already discussed the major theoretical background of the sub-Saharan poverty and mentioned the basic tool used by the UN to combat poverty - the Big Push strategy. This strategy of massive increase in development assistance is logically implied by the model of insufficient saving and slow capital accumulation. This provides us with the underlying theory and the economic and political tool it implies. Let us now have a look at the actual history of the extreme poverty line in the SSA.

THE ACTUAL HISTORY AND ACHIEVEMENT OF THE MILLENNIUM DEVELOPMENT GOALS IN SUB-SAHARAN AFRICA

To measure the extreme poverty line in SSA, first a set of key figures is needed. To be consistent, we will use the official indicators published by the UN for the needs of the MDG's. The UN uses the following indicators to monitor the achievement of the first target:

- Proportion of population living below \$1 (PPP) per day
- Poverty gap ratio
- Share of the poorest quintile in national consumption

The poverty gap ratio measures the magnitude of poverty. Expressed as a percentage of the poverty line, it is the result of multiplying the proportion of people who live below the poverty line by the difference between the poverty line and the average income of the population living under the poverty line. The measurement we will use started in 1990, which is the reference year used in determining whether the Millennium Development Goals have been met or not. We would like to stress that data collection in the SSA must be seen as rather problematic, due to the low frequency of the surveys conducted and the generally very poor quality of data on SSA poverty. Moreover, the latest data available on the entire SSA region are from 2005. Table 1 shows the history of the main indicators from 1990.

Table 1: SSA poverty indicators

sub-Saharan Africa			
Indicator	Year		
	1990	1999	2005
Proportion of population living below \$1 (PPP) per day (%)	57.4	58.2	50.7
Poverty gap ratio (%)	26.2	25.7	20.6
Share of poorest quintile in national consumption (%)	3.4	-	3.6

Source: UN (2007) and UN (2009)

From the history of the extreme poverty indicators, it is clear that there has been only little improvement over the last 15 years. This slight improvement is by no means sufficient to meet the first target of the MDG's. According to the poverty gap ratio, the improvement reached since 1990 is not sufficient to meet the criteria of the first target of the MDG's, and thus the first target of the MDG's is not being achieved. Neither has the poorest quintile in national consumption marked any improvement since 1990. This means that even this indicator does not suggest any shift towards the fulfilment of the first target of the MDG's. Based on the above three poverty indicators, a clear conclusion can be drawn: extreme poverty in SSA stagnates or has only been improved very little. However, this is often based on data which is not robust enough to suggest a long-term trend. Moreover,

the slight improvement suggested by some of the indicators is entirely insufficient in view of the achievement of the first target of the MDG's. In the light of the above facts, further analysis of extreme poverty in SSA becomes rather monotonous. The way the first target of the MDG's is being met is almost identically described in all reports by the UN reports and by other international organizations such as WB, IMF, and African Development bank. All the above reports corroborate the almost unchanged poverty line in SSA as a whole marking the non-achievement of the first target of the MDG's by 2015 as very likely. Moreover, no progress has been achieved in SSA since 2005 towards the fulfilment of the first target of the MDG's, (MDG Report 2005, MDG Report 2006, MDG Report 2007, MDG Report 2008, and MDG Report 2009). Whether the slight improvement in the poverty achieved recently marks a long-term trend is a problem to be revealed by new data. The question, however, remains why the \$ 510 billion (DAC, 2010) in ODA sent to SSA since 1990 has not contributed to a more marked reduction of extreme poverty.

CAUSES OF NON-ACHIEVEMENT OF MDG'S IN SSA

In this section, we would like to offer a critical view on the issues of extreme poverty combating through development assistance as administered by the UN, de facto, since its inception in 1945. The changes in the poverty indicators suggest that SSA is still, despite the assistance received, afflicted by an extreme 50 percent poverty. Why is it then that the MDG's do not help reduce the poverty line in this region? And why, after almost two-thirds of the MDG implementation period, the poverty line has remained virtually the same? To find answers to such questions, first some intermediate steps have to be taken for the above questions to be more specified. First the following question should be cleared:

1. Has the UN (this means Jeffrey Sachs and his team) correctly (sufficiently) identified the main causes of SSA poverty?

The main cause of the SSA poverty is attributed to a low rate of national saving, which brings down the capital accumulation not initiating a growth of per-capita income. Although the low saving rate is certainly among the causes of extreme poverty in SSA, we think that narrowing down in this way the spectrum of circumstances that account for poverty neglects many other causes of the African economic plight. For this reason, the identification of the causes of the sub-Saharan poverty is, in our opinion, insufficient. The next question to be asked must be:

2. Has the UN chosen the correct (sufficient) tool to tackle the problem of SSA poverty?

It is development assistance that has been chosen as a major tool. The reason why it is exactly ODA is that, based on the insufficient-saving logic, ODA should temporarily make up for the deficit of domestic savings thus stimulating economic growth. However, development assistance alone does not automatically lead to a reduction in poverty. Its effect on the reduction of the poverty line is conditioned by many more factors which have not been considered because the identification of the causes of poverty has, in our opinion, been insufficient. The last question to be asked is this:

3. Has this tool (ODA) contributed to alleviating the extreme poverty in SSA?

Due to an insufficient analysis of the main causes of poverty in SSA, the tool chosen (ODA) is insufficient. An inappropriate tool (as such) can then hardly help reduce the extreme poverty line in SSA. The data on the development of extreme poverty in SSA corroborate the fact that the extreme poverty line has changed very little over the last 15 years. Here the development assistance is next to ineffective in reducing the poverty line. Thus, in the light of the existing outcomes of ODA in sub-Saharan Africa, there are no grounds to believe that increasing development assistance as part of the big-push strategy is justified.

There are critics of the approach of Jeffrey Sachs (and the UN) who believe that an increase in national saving rate need not necessarily imply a decrease in the poverty line of SSA. W. Easterly, a major critic of development assistance, for one, says that if the premise that economic growth can be bought with ODA is true, the per-capita income in Zaire in the period between 1960 and 1994 should have been about \$ 22,000 rather than the existing \$ 600, (Easterly, 2001). Easterly (2006) also disputes the positive effects of the development assistance on the economic growth and thus on a reduction of the poverty line of SSA. He says that, although the development

assistance provided for Africa was the biggest, this continent marked the lowest growth rate of all. Moreover, Easterly compares MDG's to a central planning system with a single bureaucratic UN centre in New York deciding on the causes of poverty and the needs of all the developing countries not only those of SSA. Devarajan, Easterly, and Pack (2002), too, analysed the impact of investment on Africa's economic growth. The conclusion they arrived at was that there was not any conclusively strong relationship between increasing ODA and starting a higher GDP growth rate; this was also corroborated by the empirical research conducted by Erixon (2005). Kraay (2005), too, disputes an unequivocally positive influence of development assistance on economic growth in SSA. He maintains that there is not sufficient empirical experience to go on. He does not say that Africa can do without any type of assistance. However, in his opinion, the expectations of the effects of such assistance should be reduced. Apart from insufficient saving, there are, however, a number of other causes of extreme poverty in SSA. Collier (2008), for example, sees the causes of stagnation in the following four points: (1) too many political and ethnic conflicts, (2) the mineral resources exploited cannot support economic growth without strong governmental institutions and organizations guaranteeing that such resources do not fall into the hands of a small group of people, (3) landlocked countries without access to the sea have very limited trading options, and (4) corrupt governments and low level of education. Lucas and Timmer (2005) also emphasize the important role of agriculture and labour market in reducing the poverty line. Provided that they help increase the productivity of labour or per-capita income, both sectors do fulfil their roles of major accelerators of economic growth. The causes of extreme poverty in SSA may also be seen in informal institutions and their influence on the behaviour of individuals inflicted by extreme poverty. This approach was adopted by Bauer and Chytilová (2006) in their research to identify the causes the low saving rate in Africa. It was conducted in the district of Mukono, Uganda with 910 respondents of all age and education brackets and the following outcomes. *“Every investment needs time to bring its fruits. According to Bauer and Chytilová (2006), Uganda's annual subjective discount rate is extremely high (above 300 percent p.a.) and strongly education-level-dependent. The low willingness to wait manifests itself by the demand for a markedly higher return on investment because people in Africa strongly discount future revenues preferring instantaneous consumption. This inevitably leads to lower investment in physical and human capital. Thus, primarily, the low proportion of savings and investment is probably not brought about by external circumstances being rather the consequence of different preferences.”* Bauer and Chytilová (2006: 18). In Birdsall (2007), the role of development assistance is disputed, too, with an alternative view on SSA offered, which, in the author's opinion, is not trapped in extreme poverty (savings), but rather in insufficient and weak institutions both formal and informal. This is based on the fact that a strong, economically independent middle class is missing in SSA, which would otherwise help create and maintain healthy institutions including the basic governmental bodies. This shows that there are numerous views on the causes of sub-Saharan poverty. Therefore, it seems to be insufficient to only concentrate on the savings and their replacement by development assistance, which is also corroborated by the data on the poverty line in SSA.

CONCLUSION

This paper aims to assess the degree of achieving the MDG's in SSA and find an answer to the question of whether the MDG's help reduce the poverty in SSA. We have found out that, according to the UN, low rate of national saving, which stifles economic growth in the region, is the main cause of the SSA poverty. The UN sees massive increase in the development assistance as a solution, which should temporarily bridge the domestic saving deficit. In our opinion, the identification made by the UN of the cause of SSA poverty is too narrow and, therefore, insufficient. A low rate of national saving alone does not fully account for the sub-Saharan poverty. The influence of informal institutions on the behaviour of population inflicted by extreme poverty, for one, is strongly disregarded by the UN concept. Since the UN has insufficiently identified the basic causes of the sub-Saharan poverty, an inadequate (insufficient) major tool - the official development assistance - is being used for combating it. However, development assistance alone does not lead to reducing the poverty rate. Thus, the first MDG target (halving the poverty line between 1990 and 2015) is not being met in SSA and is not likely to be fully met by the end of 2015 (the end of MDG's).

In our opinion, further research should shift focus on the institutional environment of SSA and on the influence of institutions on poverty generally. It is especially the study of informal institutions in sub-Saharan Africa that could help understand better the causes of the SSA poverty and find a solution to this problem that has been afflicting sub-Saharan Africa for years.

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KNOWLEDGE MANAGEMENT IN MACROECONOMICS OF SCIENCE AND EDUCATION

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ABSTRACT

Macroeconomics trends and changes in the world ranging from economic globalization and scientific-technical and technological processes, through structural and institutional changes and changes in labor force characteristics, place the need for knowledge, and science and education in the foreground. Making creative human resources and investment in human capital have become the imperative of production acquisition of wealth, ensuring competitive advantages. By this way, knowledge has become the primary global resource. Knowledge by itself is not enough, but needs to be knowledge that increases the value, creates profit and increases wealth. Knowledge is not a cheap resource for almost ten percent of domestic product returns to knowledge. But it creates an educated personality representing knowledge society, a symbol of the knowledge economy and economic success guarantee.

GENERAL APPROACH TO KNOWLEDGE MANAGEMENT

Today, at the beginning of the 21st century, the activities oriented at the creation of wealth are no longer any work, neither capital nor land. Global economic resource is knowledge. Productivity and innovation now create the value, and both are the result of applying knowledge to work. The leading business group of the society of knowledge is "knowledge workers" - an executive management / users of knowledge who know how to plan knowledge for productive purposes, just as the capitalists knew to invest capital in productive purposes, in the specialists, in the field of knowledge. All these people have "tools for the production" through knowledge workers who take knowledge with them wherever you go. The productivity of knowledge workers and knowledge represents the challenge of the 21st century, as knowledge reflects the intellectual, moral and spiritual development of individuals, which is only equipped with knowledge ready to act.

MACROECONOMICS OF SCIENCE AND EDUCATION

Economists praise capital investment technologists give recognition to the machines. Only is productivity explained as the result of applying knowledge to knowledge, which neither machines nor capital can do. In this context, management is a generic body of knowledge society. For the same reason manager is responsible for implementing and performing the practical side of knowledge. We consider knowledge now as the essential resource. And where there is effective management and application of knowledge to knowledge it is a lot easier to get those other resources, without which knowledge can not "produce". The fact that knowledge has become a "real" resource creates a new social structure. "We have moved from knowledge in the singular to knowledge in plural. This transition gave knowledge its strength to create a new society, new economy, new politic. "What we understand today as knowledge is information effective in action, information focused on results. These results are seen in society and the economy, in knowledge prosperity. "It is therefore easy to understand less income can be drawn from traditional resources such as land, labor and capital. Why? Because main "producers" of wealth have become information and knowledge. However, knowledge-based economy does not behave in the way existing theories argue the economy is behaving.

In the knowledge economy, imperfect competition is the internal qualification of the knowledge economy itself: the initial advantage gained by implementation and exploitation of knowledge (learning curve) become permanent. Modern economists believe the economy is determined by consumption or investments, which is not of crucial importance in the knowledge economy. In the knowledge economy, there is no evidence that increased consumption of water increased the production of knowledge or higher investment leads to greater production of knowledge. New knowledge is reflected : (1) as the constant process of improving processes of production and services, (2) as exploitation, which implies constant use of knowledge for the development of new products and services, and (3) as innovation, which is the way of applying knowledge to deliver changes in the economy. Economic characteristics of these types of knowledge (ie, their use and their effects) are qualitatively different. Knowledge, in fact, cannot be measured, but only the "cost" to produce, allocate and distribute the knowledge can be estimated. However, the gain knowledge gives, again can not be measured. It is only good that quantity of knowledge is not critical for the productivity of knowledge.

Knowledge is not a cheap resource. Developed countries, spend nearly twenty percent of GDP on the production and distribution of knowledge. Official education (formal education) of young people before they officially become the labor force carries a way ten percent of gross domestic product. Companies (employers) spend an additional 5% of GDP for permanent education of employees. For the purpose of research and development (production of new knowledge) developed countries stand 3-5% of GDP. The formation of knowledge, therefore, represents the greatest investment. But since we do not have the economic theory of productivity of investment in knowledge, we are forced to listen to management, which is responsible for making the knowledge productive. This responsibility can not be taken by the government (state) or market forces (laws). Responsibility can only give to the management, which, by definition, implies a systematic, organized and responsible application of knowledge to knowledge. Productivity of knowledge itself requires only the yield increase from what is known, simply because the productivity of knowledge is the only decisive factor in the competitive position of companies, sectors, regions, economy. The advantage exists where the ability to exploit universally available knowledge exists, too.

Technological revolution (and in particular IT) has transformed the way of learning and changed the economics of education since all schools have moved to highly capital - intensive from fully working - intensive. The school has become the IT and educational institutions of society, dealing with young people, who are not considered to be citizens yet, who have not yet been given responsibility, who have not yet been labor force. In the knowledge society a new learning technology should be build to achieve universal literacy. The school of tomorrow implies the students who will be tutors to themselves with computer programs monitoring system, as their own tools. Teachers will only have to motivate, guide, encourage. In this context, the teacher would, in fact, become a leader and resource. Universal literacy would mean the process of subject knowledge, plus knowledge. This, in turn, means that in a society of knowledge young people need to learn and to learn how to learn. For, in the knowledge society, knowledge is not impersonal, like money is. Knowledge does not exist in the book, bank data, the software program. Knowledge is created of information and is always incorporated in the personality. Knowledge is carried by personality who creates, increases improves knowledge; a man applies it, gives and uses it.

Educated person is the emblem and symbol of a society of knowledge. Educated person of tomorrow is an expert prepared person to live in a global world. It is a citizen of the global world of knowledge, ready to work in two cultures: (1) in the culture of "intellectuals", which focuses on the thoughts and knowledge, and (2) in the culture of "managers", which focuses on people and work. "Intellectuals see the organization as a tool, it allows them to practice their technical property, specialized knowledge. Managers see knowledge as an instrument that serves a purpose and aim of the practical functioning of the organization. Certainly they need each other: scientific researcher manager research as much as manager of research needs researcher. Intellectual world, if not balanced weight on pan manager, becomes a world in which everyone "do their own", but one does not achieve anything. Manager's world, if he does not make intellectual balance exceeds the maimed bureaucracy "organization man". But if the two sides are in balance then creativity can be achieved as well as "the fulfillment of purpose and meaningful mission".

In transition economies knowledge becomes a commodity. It is a recently learned lesson from the developed market economies readings of the Organization for Economic Cooperation and Development (OECD) and the European Union (EU), which faced major changes in market of knowledge and market of intellectual

services. Modern economies require new knowledge, particularly in management, marketing, entrepreneurship, banking industry, entrepreneurial finance, financial markets, stock exchanges, and so on. Constantly growing demand for knowledge in the field of eco-management, management in education, management in public sector and in public administration, tax management, budget engineering management, infrastructural finance, project and portfolio management, strategic management, financial management business, management in corporate finance and so on is present every day, too. Demand for the coming economists with the new knowledge is determined by: (1) growth of the number of new firms and privatized enterprises, (2) the emergence of new institutions of a market economy, such as institutional investors, financial markets, stock exchanges, brokers and dealers, audit firms, rating organizations, consulting centers, advertising and financial engineering agencies, tax consulting, institutions for quality control and standardization, IT centers and centers for training of personnel. Business is starting to be almost exclusive orientation of young people instead of the previous "struggle for employment."

Innovative and specialized (beside graduate and postgraduate studies) educating become very profitable business, and competition in the market is growing every day on the business-enterprise-management level. For this reason, motto of education becomes very important thing, and says: "The one who does not study economics in order to gain knowledge how to earn money, is losing its time here" in its wandering for life. The acquisition of modern and high quality knowledge becomes a matter of prestige for the achievement of career resulting in money as motivation in the new market environment.

Therefore, the role of education in business permanently grows, because knowledge is the "strongest" resource of educated businessman, who is a reliable professional partner. It also implies a business career, which includes a continuous learning and investing in oneself. Education and business are, therefore, the new "partners in progress, in which a businessman, an entrepreneurial manager has: (1) learned the skills of speaking, negotiation, business communication, business correspondences and business manners, (2) gained knowledge from the philosophy of success, business ethics, business logistics, self advertising, personal finance and "business" management of itself, (3) perceived opportunities how to translate macroeconomic models from the level of management information to , enterprise idea management and a business plan level. In this context, the results of "work" achieved are measures in profit based on the efficiently completed work. And for this reason only success is only recognized as nothing succeeds better than success itself.

Modern educated businessman, entrepreneur, manager, usually respects the mega trends of development, which implies a transition: (1) of short-term to long-term business horizon with emphasis on the importance of a strategic vision of development, (2) from industrial to information society, (3) from the national to world economy (integration of business, globalization of production and markets, and cooperation of research and development activities), (4) from centralization to decentralization (synergy initiative parts), (5) from forced and "decorative" technology to accepted technology (in business, profession, work and life), (6) from the hierarchy to networks (efficient information flow, fast communication and the development of equality and cooperation instead of competition and subordination) and decentralization of education and the knowledge economy.

The knowledge and coping with skills are a function of understanding economy in the concept of: "Economics cannot be explained by economics." The principle of practicality incorporates knowledge that develop he ability to quickly spot problems and efficiently resolve practical issues in this manner: "Theory is the best practice." The principle of individualism represented developing the ability of students to manage their freedom and ability to assume responsibility on their own. The principle of merchantability nominates student's increasing freedom in making choices in terms of subjects, teachers, scientific and professional field of activity. Implementation principle incorporates the principle of learning through the introduction of practice. These educational principles include operative rules and values as: (1) innovation and entrepreneurship, (2) morality, (3) professionalism, (4) winning mentality and (5) orientation to the family. Innovation and initiative reflects the emphasis on creation and new solutions, breaking the tyranny of the status quo, the ingeniousness and curiosity, achievement of a successful business career, fighting against with common and every day, and the desire to live well. Morality, however, refers to keeping the word, the business perfection, partners respect and the elimination of egoism. Professionalism puts emphasis on skills, competition, knowledge, and the legality of the profession. The winning mentality is reflected faith to succeed, faith in oneself, faith in the perseverance, faith in the

competition, faith in persistence. Finally, the orientation to the family is a reflection of modern business, understanding that the family is a fundamental element of success in life and careers.

For all this said, in modern education mechanisms it is important to understand that the student consumes university's products - knowledge, "exploits" stock of knowledge (theoretical and practical), "buys" innovation and creation, absorbs "lectures (theoretical and practical), and "evaluates," producers of knowledge (teachers and assistants). Therefore, the central task of top education is to enable student for creation, for the enterprise, competition, innovation, marketing presentation of the quality of knowledge, for market allocation of knowledge, the new philosophy of success.

Privatization of some segments of higher education and certain higher education institutions is inevitable. The same is the case with the penetration of foreign capital and exportation of knowledge. Basically, it is about a fact to turn education into a capital and to finally solve the problem of ownership of that capital, as public and private education is no longer counterpart. They are, in fact, interactive educational segments, complementary and convergent. More important may be to educate young people in co-production "for those sectors that require more skills, more knowledge and more capital intelligence. In this way change in the structure of education would affect the changes in structure of the labor force.

People redistribute their time and the use of educational services they buy when they respond to changes in expected income and the pleasures they expect in the form of profit from their own education. People redistribute their time to benefit future abilities that have value. Ability demand curve grows along with an increase in the ability to redistribute resources. In the process of modernization of growth, the demand curve for the economic values of capacity, which results in an increase of the overall productivity, as a social good, and improved allocation for living, as a private good, derivative from the social effects of public goods, which are redistributed and allocated by the use of additional human capital and increasing quality of the population. Therefore, it is considered that education is not only a consumer activity in terms of satisfaction and achieving exclusive benefits but the costs for education are made with the purpose to gain manufacturing capital embodied in human beings, which provide future services, made of future earnings, future career and future pleasures, future investments in human capital.

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SMALL AND MEDIUM SIZED ENTERPRISES' (SMEs) TAX POLICY PROPOSALS ARISING FROM COMPLIANCE WITH THE AUSTRALIAN GOODS AND SERVICES TAX

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ABSTRACT

This paper presents some major policy proposals for the Australian government and other international countries yet to introduce the Goods and Services Tax (GST)¹ or any new tax. These recommendations are drawn from findings on the overall SMEs GST start-up compliance costs and their resultant managerial benefits research conducted in 2000 and 2003 respectively. Findings are discussed within the context of this study's major objectives, expressing an international perspective. With high SMEs GST start-up compliance costs, how can governments minimise GST start-up compliance costs or alleviate SMEs compliance costs for future taxes? Conclusions highlighting limitations and further research are made.

INTRODUCTION

It is now nearly a decade since the introduction of the GST in Australia. Prior to its conception, small businesses were apprehensive about its impact on their operations. Against this background, this author conducted a study on GST start-up compliance costs for Australian small businesses. Start-up compliance costs are the costs incurred by businesses in preparing to comply with the GST legislation. For private enterprises, these include new computer systems and time spent on training new bookkeepers and staff to operate the GST. Notably, due to pressure from businesses, professional bodies and academics, subsequent Australian government budgets had since addressed small business tax compliance issues through tax simplification measures. Again, after the Ralph Review², the federal Labour Government's 2008-2009 Budget announced another comprehensive review of the Australian tax system, chaired by Dr. Ken Henry, aimed at tax simplification measures, known as the Henry Review (HR). Clearly, despite these tax simplification measures, the government has adhered to its policy of revenue neutrality to protect the tax base against possible revenue losses.

The purpose of this paper is not to delve in the detail on the results of this study as these had been discussed elsewhere (Rametse and Pope, 2002). This paper mainly examines some major tax policy proposals for SMEs, arising from this research, for the Australian government and other international countries (such as the USA and Malaysia), yet to introduce the GST or any new tax. The paper adopts a dual focus on SMEs because, first SMEs are the "backbone" of the Australian economy as they generate employment and output. Second, they face regressive tax compliance costs. The rest of the paper is organized as follows. Section two presents an update on post GST implementation tax policies, so far as they affect Australian small businesses. Section three outlines the major objectives of this research and their associated findings. Section four discusses policy implications for this study. The final part presents concluding remarks, articulating some aspects for further research.

SMEs TAX CHANGES POST GST IMPLEMENTATION

Since this research and other relevant academic studies, the Australian government has addressed issues that affect SMEs through devising tax policies that would alleviate their compliance requirements and reduce administrative costs. This is due to the overall recognition that SMEs are back-bones of the Australian economy as they generate employment and output. Additionally, they comprise a significant number in the Australian tax system and face regressive tax compliance costs. Moreover, the *Ralph Review's* Simplified Tax System (STS), which was aimed at simplifying the small business income tax system, hence reducing their compliance costs, was widely condemned by academics for its inefficiency. However, Sandford *et al* (1989) note that a policy objective of minimizing compliance costs will often conflict with equity, neutrality or efficiency in resource usage as it can not be pursued without regard to its impact on administrative costs. This confirms that on the one hand, whilst the Australian government is trying hard to simplify the Australian tax system, on the other hand, it is a daunting task to keep the balance.

One of the STS was the use of the cash accounting system by eligible small businesses. Under the STS, small businesses with an annual turnover of \$1 million could use cash accounting system and other simplification methods to calculate income tax liabilities from 1 July 2001, not from 1 July 2000 as originally proposed by Ralph (Pope 2000). The turnover threshold limit for cash reporting under the GST was a concern for many. Prior to the implementation date (1 July, 2000) or the initial ANTS proposals, the threshold was originally set at \$250,000 (Evans and Ryan 1999; AFR 1999a). After much lobbying by CPA Australia (the then Australian Society of CPAs), the turnover threshold which small businesses could use the cash method of accounting was gradually increased from \$250,000, then \$500,000 (Ryan 1999) and ultimately \$1 million on 30 August 1999 (AFR 1999b). Suffice it to say that the low threshold was criticized for its capability of increasing compliance costs. This is because it could force the majority of small businesses to use the complex accrual method of reporting, which requires a significant understanding of the double entry accounting system.

Academics and tax professionals such as Dirkis and Bondfield (2005) and Dirkis and Bondfield (2004) extensively critique the Ralph recommendations post the implementation of the GST, so far as they affect small businesses. Dirkis and Bondfield note that the government claimed that 95 per cent of all businesses and 99 per cent of farming businesses would be eligible for STS. However, by 17 April 2003, of eligible taxpayers who lodged their 2002 tax returns, only 14 per cent had opted into STS (Dirkis and Bondfield, 2005). The issue of small businesses electing to join or leave the STS was also assessed by Kenny (2009) for its capacity to increase small business compliance costs as they had to review their eligibility, estimate the benefits of joining or leaving the STS and notifying the Australian Taxation Office (ATO).

Due to these controversies, changes to the STS were also made effective from 1st July 2005. This was also the result of the 2004 federal election policy statement of promoting an enterprise culture - to encourage entrepreneurial spirit amongst small businesses (McLaren, 2006). These changes now allow eligible STS taxpayers to use whatever accounting method suits their circumstances. Additionally, in compensating for their compliance costs, small business taxpayers who joined the STS and have a turnover of \$50,000 or less are given a tax offset of 25 per cent on their tax payable. If the turnover goes above \$50,000, this tax offset decreases at 1 per cent on every \$1,000 until the turnover reaches \$75,000. McKerchar, Ingraham and Karlinsky (2005) contest that, this simplification measure, still does not address the underlying issues of the impact of the complexity of taxation law on enterprise productivity and economic growth in the long-run. Moreover, given the turnover threshold of \$75,000 as a cut off for the 25 per cent tax incentive, this excludes a majority of small businesses. Again, this is far much outweighed by excessive small business tax compliance costs.

Following the 2020 Summit³ proposals, the Henry Review⁴ focused on examining the Australian tax system with an aim of recommending a tax structure that would help Australia deal with the demographic, social, economic and environmental challenges of the 21st century. Amongst these included the prevailing issue of simplifying the tax system, inclusive of appropriate administrative arrangements, reducing compliance costs and the Government's policy of not increasing the GST rate or broaden its base (The Treasurer's Press Release No. 036, 2008).

RESEARCH METHOD

This is an exploratory study that utilised a postal survey and in-depth face to face interviews. The postal questionnaires were sent to 4,000 small businesses in Western Australia. This resulted in the response rate of 27 per cent (868 responses), which is reasonably acceptable. This was representative of small business GST registrants in terms of their annual turnover and business activity. As regards investigating the much more difficult and problematical area of managerial benefits, structured face to face interviews with thirteen small business owners were conducted. Though these were in-depth interviews, results need to be treated with caution due to the small number of participants. The data was analysed using Statistical Package for Social Sciences (SPSS), and for open ended questions, analysis was performed manually. Prior to constructing the questionnaire, it was important to define start-up compliance costs and guide respondents properly to avoid including some elements of recurrent compliance costs (costs incurred after the GST implementation) and equipment acquired for normal business activities (joint cost problem). Estimation of GST start-up compliance costs was mainly left to respondents to provide, and as such, there could be errors and overestimation. Moreover, compliance costs researchers have acknowledged that the method of calculating compliance costs is never precise; hence figures obtained normally represent a level of magnitude. However, testing strategies were exercised to reduce the possibility of such errors and improve the reliability of findings, for example, a non-response bias test. Thus, the absence of non-response bias makes this study more reliable.

MAJOR OBJECTIVES AND FINDINGS

Small Business Gross GST Start-up Compliance Costs Estimates

This study's predominant objective was to estimate GST start-up compliance costs for Australian small businesses for the year 2000. The major finding in this study is that small businesses incurred high mean gross GST start-up compliance costs in the year 2000, estimated at \$7,888 per small business. These costs comprised equipment costs of \$3,141, time costs of \$2,882 (131 hours) and other costs such as professional fees and stationery costs of \$1,865. Time costs were mainly internal (staff) costs of \$1,276, record-keeping of \$770 and ACCC compliance amounting to \$836 per small business. This situation is revealed by almost all compliance costs studies. For example, Evans *et al* (1997) discloses the magnitude of tax compliance costs experienced by small businesses. Their study confirmed that small business bears a highly significant proportion of business social compliance costs at 89 per cent, in particular, internal time costs at 90.7 per cent.

Economies of Scale Effect

Another aim of this study was to investigate small business "economies of scale" of the GST start-up tax compliance costs for the year 2000. This research confirms that GST start-up compliance costs increase with the size of the firm due to the more extensive resources expended by larger firms in collecting tax. The smaller business (ranges less than \$50,000 and \$50,000 - \$99,999 annual turnover) incurred costs of around \$7,664 per small business. Businesses within the higher turnover range of \$500,000 - \$999,999 incurred around \$11,674 and those between \$1 million and \$10 million turnover band spent around \$19,273 start-up costs. However, as percentage of annual turnover, the smallest business incurred the highest amount, clearly showing the effect of economies of scale. Thus GST start-up compliance costs are regressive because they decrease as the size of the business increases. This means that the smallest business incurred the highest relative cost of implementing the GST. Economies of scale and regressivity of the mean GST start-up compliance costs was also confirmed in the acquisition of computers and software for GST purposes. Businesses with less than \$50,000 turnover incurred a higher cost of new software (2 per cent) and a lower cost of software upgrade (1.4 per cent). Further, this study confirmed that the smallest business did not have computers prior to the GST implementation, hence incurred higher equipment costs. Businesses within annual turnover threshold of \$500,000 and \$999,999 reported that as a percentage of turnover, they incurred 1.7 per cent on new software and 1 per cent on upgrade. Sandford and Hasseldine (1992) and other compliance costs studies have confirmed the regressivity of GST compliance costs as falling with exceptional severity on small firms.

Other Key Findings

This study also found that due to thorough preparation, early GST registration resulted in higher GST start-up compliance costs. Businesses that registered in 1999 incurred mean costs of around \$8,817 and those that registered in 2000 spent around \$7,133 per small business. In addition, this study confirmed that location of the business had a direct relationship with GST start-up compliance costs. Small businesses that were located outside Perth incurred higher GST start-up compliance costs (\$8,904) than those that were located in Perth (\$8,407). Another significant finding is that small business respondents used accountants as their source of advice as they ranked them amongst the top three of the sources of GST advice. Additionally, the use of accountants for GST advice lowered small business GST start-up compliance costs. For example, small businesses that ranked accountants as the most important source of advice (top three) incurred around 50 per cent lower GST start-up compliance costs (\$8,050) compared to those who ranked them in the middle of the scale (\$16,893). A majority of small businesses also preferred to lodge their businesses' GST returns themselves (64.2 per cent). Furthermore, since they did not engage accountants in the lodgement of their GST returns, they incurred slightly higher GST start-up compliance costs (\$8,706) as compared to those that engaged accountants (\$8,372).

Another finding is that a majority of small businesses (62 per cent) regarded the \$200 incentive voucher provided by the government to encourage small business to register for the GST as inadequate. Small businesses also preferred to use the paper-based method (72 per cent) as compared to electronic systems (28 per cent) to submit their GST to the Australian Taxation Office (ATO). One more finding is that different charging categories increased small business GST start-up compliance costs. As regards different charging categories for sales, small businesses that had none of their sales taxable incurred lower GST start-up compliance costs of around \$2,956 compared to those that had all of their sales taxable (\$9,004). This was followed by those that had more than half of their sales taxable (\$9,222) and those that had up to half of their supplies taxable (\$11,624).

Businesses that incurred the lowest GST start-up compliance costs were those that had none of their sales input taxed (\$8,094) as compared to those that made half of their sales input taxed (\$9,296); those that had all of their sales input taxed (\$10,031) and those that had more than half of their sales input taxed (\$10,779). Small businesses that had all of their sales GST free incurred the lowest costs (\$6,123) compared to those that had up to half of their supplies GST free (\$8,888); those that had none of their sales GST free (\$9,865); and those that had more than half of their supplies GST free (\$10,073).

An additional significant finding is that small businesses' disapproval attitudes towards the overall tax reform also contributed to higher GST start-up compliance costs than those who approved. Small business respondents who "strongly agreed" and "agreed" to the statement "I do not mind doing GST work" incurred mean GST start-up compliance costs of \$5,984 and \$4,485 respectively. Respondents who "disagreed" and "strongly disagreed" incurred higher costs of \$8,511 and \$10,525 respectively. Although small businesses supported the government's tax reform, they disliked doing the GST work due to its complexity, compounded by exemptions, various charging categories and more paperwork. Thus small businesses may have overstated costs as a strategy for lobbying the government for a policy change. Small business respondents who believed that the GST was unreasonably complicated incurred higher costs of \$19,851 than those who were positive (\$10,405). Small businesses that were critical of the government's tax reform incurred higher GST start-up compliance costs than advocates of the government's tax reform (\$11,336 and \$5,116 respectively). Notably, complexity of the Australian tax system had been a concern for SMEs (McKerchar, 2003).

Aggregate Small Business GST Start-up Compliance Costs

This study also estimated the Australian small business' aggregate and net GST start-up compliance costs. The Australian small businesses' mean aggregate GST start-up compliance costs for the year 2000, were estimated at around \$5,677 million. GST start-up compliance costs for Australian small businesses represented around 4 per cent of Commonwealth taxation revenue in 1999-2000. Relative to Australia's GDP in 1999-2000, aggregate small business GST start-up compliance costs in 1999-2000 was estimated at just below 0.5 per cent. In ascertaining the reasonableness of consistency of the aggregate gross GST start-up compliance, small businesses confirmed that if they were to claim from the ATO for the costs they incurred in preparing to comply with the GST, they would claim around \$4,099 million. This figure is less than the recorded aggregate gross GST start-up compliance costs by 28 per cent. It must be noted that at the time of this survey, small businesses

were still trying to come to terms with the high implementation costs of the GST and the role of “unpaid tax collectors” thrust upon them. Consequently, it is probable that small business respondents deliberately overstated their GST start-up compliance as a way of lobbying government to change GST policy. Another finding of this research is that the government underestimated start-up compliance costs of the GST. The RIS (1998) estimated the figure of \$2.2 billion for all businesses, which is around \$3.5 billion lower than this research’s figure of \$5,677 million. Moreover, as an indication of magnitude, this study’s aggregate start-up compliance costs estimate represents around 59 per cent of the aggregate gross recurrent compliance costs of all Australian business taxes in 1994-95 estimated by Evans *et al* (1997).

The GST and Managerial Benefits

This research also explored the relationship between start-up compliance costs of the GST and managerial benefits resulting from investment in the latest technology and better record keeping brought about by the GST for some businesses. Thus the extent to which small businesses may have benefited from the introduction of the GST (managerial benefits) was established. This research found that as a result of investment in information technology, better record-keeping and ensuing decision making, small business management and efficiency improved. The original survey confirmed that 34 per cent of small businesses expressed that they expected to benefit from keeping records for GST purposes. Since this was based on expectation, further investigation was conducted through structured face to face interviews with thirteen small business participants in Western Australia. Although Australian small business GST start-up compliance costs were high, this study has confirmed that after three years of the GST implementation, small businesses enjoyed managerial benefits arising from GST compliance requirements. Just over 50 per cent of small business participants valued managerial benefits at an average of \$4,639 per small business. It must be noted that caution must be taken when interpreting this figure. Firstly, due to the small number of participants used in this study, it can not be guaranteed that this could be effectively generalised to the small business population. Secondly, small business participants were not sure of the precise managerial benefits figure, hence provided estimates which could have been either overestimated or underestimated. Notably, Sandford, *et al* (1981), suggest that the value of managerial benefits can be quite considerable; possibly around a minimum of 7 per cent of gross compliance costs to a maximum of 13 per cent.

Although it was costly for small businesses to acquire computers for GST purposes, this later benefited the smallest business (\$50,000 to \$499,999 annual turnover) in their overall business activities. These businesses further recognised improvement in their record keeping mainly because they had to substantiate for the GST collected and input tax credit. Consequently, just over 50 per cent of small business participants recognised savings in accounting fees. Whilst some small business participants were able to value managerial benefits, some of them found it very difficult to attach a value to it. Small business participants also confirmed that although the acquisition of computers for GST compliance was high, after three years of the GST implementation, they recognised that this benefited their overall business activities. However, this benefit was recognised by the smallest businesses (\$50,000 to \$499,999 annual turnover) that did not have computers prior to GST implementation. Small businesses acquired computers and software at \$3,141 per small business and after three years of GST implementation, managerial benefits arising from the use of computers were estimated at an average of \$3,027 per small business. Thus offsetting around 96 per cent of computers costs acquired for GST purposes. Another major finding was that the smallest businesses in the annual turnover threshold range of \$50,000 to \$499,999 recognised improvement in record keeping. This is due to substantiation required by the ATO for the GST collected and input tax credit. Small business participants of higher annual turnover threshold (\$100,000 to \$10 million) asserted that their records had always been better kept, and as such, did not recognise any benefit. Another finding was that just over 50 per cent of small business participants recognised savings in accounting fees and these were mainly businesses that employed in-house accountants.

Net Aggregate GST Start-up Compliance Costs

Another objective of this research was to estimate net aggregate GST start-up compliance costs for Australian small businesses. The net aggregate GST start-up compliance costs was estimated at around \$4,695 million after taking into account two offsetting benefits; tax deductibility of \$834 million and cash subsidy of \$148 million.

Thus the value of the tax deductibility and the cash subsidy decreased the mean gross GST start-up compliance costs by around 17 per cent. However, Evans *et al* (1977) research uncovers that tax deductibility has very little impact in terms of improving small businesses relative to larger businesses (89 per cent of costs of all businesses), a situation confirmed by the Sandford and Hasseldine (1992) study. In comparison with large businesses that enjoy tremendous cash flow benefits, small businesses are at a serious disadvantage.

International Comparisons

Normally, it is important to ascertain how these estimates of small business GST start-up compliance costs in Australia compare with those of other countries. Notably, there is little international data for comparison with this study as there is no comprehensive study on GST start-up compliance costs except for the Canadian CFIB (1991) study, which was widely criticised for bias. In order for comparison to be meaningful, it must be acknowledged that taxes are different in features and this must be considered. Sandford and Hasseldine (1992) identify these features as the tax structure, the tax base, the rates, the administrative costs and the administrative methods and regulations. Canadian GST start-up compliance costs were estimated at C\$3.0 billion, which is around half that of this study's small business GST start-up compliance costs of around \$6 billion.

POLICY PROPOSALS

Overview

This author acknowledges that GST start-up compliance costs are mostly “sunk costs” and can never be recovered; however, their significance is important for policy makers. Findings of this research are valuable for Australia in the long-term with regard to any future tax reform, in particular, the introduction of any new tax that affects small businesses. Internationally, countries yet to introduce the GST, such as the USA and Malaysia, should benefit from findings and recommendations of this study. As McKerchar (2003) asserts, “clear and consistent tax policy would not only reduce the complexity of the system for taxpayers and their compliance costs, it would improve their perception of the system’s fairness...” (McKerchar 2003). Thus, it is clear that communication between taxation researchers and policy makers is essential. Policy recommendations for this study are made with a focus on five areas, four of which are based on Sandford *et al* (1989) criteria for government policy on compliance costs. These criteria are recognition, allocation, minimisation and compensation. The fifth section is recommendation for further research.

First, governments should recognise the existence and significance of start-up tax compliance costs for small businesses. Second, governments should not reduce administrative costs at the expense of start-up compliance costs. Thirdly, governments must have appropriate strategies targeted at minimising start-up tax compliance costs. However, reducing the compliance burden is seen by governments as “difficult because of the various policy trade-offs, such as revenue and taxpayer equity that must be made” (GAO 1996). The fourth recommendation is that small businesses should be compensated for the start-up tax compliance costs they incur. Finally, further research should be undertaken pertinent to certain issues that arose from this investigation.

Recognition of Start-up Tax Compliance Costs

Overall, this study has estimated Australian small business GST start-up compliance costs in 1999-2000 at \$5,677 million in comparison with Commonwealth taxation revenue of \$153 billion, or 4 per cent of taxation revenue. Importantly, aggregate GST start-up compliance costs represent around 10 per cent of all business taxation revenue. Relative to Australian GDP, aggregate small business GST start-up compliance costs were 0.53 per cent in the year 2000. More significantly, as an indication of magnitude, these costs represent around 54 per cent of the aggregate gross recurrent compliance of all business taxes in 1994-95 estimated by Evans *et al* (1997). A major policy implication arising from this research is for governments to recognise the significance of start-up tax compliance costs for small businesses when they introduce a new tax. This research is the only comprehensive academic study so far on GST start-up compliance or any tax in Australia and support from government was expected. However, the Australian Taxation Office was unsupportive in making relevant

information available to the researcher, such as stratified data on small businesses. Thus if governments are not supportive, the credibility of the study may be questionable.

The RIS (1998) failed to provide a break-down of expected GST start-up compliance costs by size of the firm and as such, it was difficult for small businesses to ascertain how much costs they should expect to incur. Thus the RIS must provide expected start-up compliance costs of a new tax by size of the firm, for example, small, medium and large. This study estimated GST start-up compliance costs per firm, by annual turnover (size of the firm) and for the overall Australian small businesses. These estimates will be useful for future taxes. Governments should not use the RIS or taxation impact statements to only justify the introduction of a new tax/regulation, but should also provide an assessment of its suitability. As discussed above, though the Australian GST start-up compliance costs are mostly sunk costs, their estimation is important as they can provide a basis for estimates of compliance costs of other taxes.

Allocation of Start-up Tax Compliance Costs

Notably, the operating compliance costs of a tax system comprise of administrative costs and compliance costs. When a new tax system or a major change in a tax structure is considered, how do governments allocate operating costs between the public sector and the private sector? The view by Sandford *et al* (1989) is that governments are usually concerned with the growth of public expenditure and/or the increase in taxation that goes with it, and as such, are tempted to devise strategies that would decrease such costs at the expense of private sector costs. This study has confirmed the regressivity of GST start-up compliance costs, and it is recommended that governments should try to allocate more costs to administrative costs than compliance costs, unless alternative arrangement such as compensation can be justified. The same issue is suggested by Chittenden *et al* (2003), that there is a need for novel approaches towards managing public sector costs that are passed on to private sector businesses.

Minimisation of Start-up Tax Compliance Costs

Governments must recognise the need to reduce GST start-up compliance costs for small businesses. High compliance costs for small businesses have long been a major issue in Australia. The government and the ATO have, to some extent, previously recognised this in the Beddall Report (1990), The Bell Report (1996) and The Ralph Report (1999). In 2005, the former Treasurer of the Commonwealth of Australia, The Hon Peter Costello, announced that he had asked the Board of Taxation to undertake a scoping study on small business tax compliance costs and identify important areas where compliance costs might be reduced (Treasurer's Press Release No. 095, 2005). The previous Australian Prime Minister and the Treasurer also announced the establishment of a taskforce on 12 October 2005 (to report back by 31 January 2006) to identify practical options for alleviating the compliance burden on business from government regulation (Department of Industry and Tourism and Resources 2005). The taskforce indeed reported back by 31 January, 2006 and amongst issues raised by small businesses were the paperwork burden and related compliance costs (Banks, Halstead, Humphry and MacRae, 2006). This research has confirmed that the smallest business bear the heaviest burden of GST start-up compliance costs. Thus reducing small business compliance costs could be achieved through a higher registration threshold so as to keep them out of the tax system.

Indeed, the Australian government must be commended for being attentive in this regard. The 2007 Federal Government's budget articulated positive changes which targeted reducing small business tax compliance costs. Some of these important measures included: an increase in the registration threshold from the annual turnover of \$50,000 to \$75,000 for businesses and from \$100,000 to \$150,000 for non-profit making organisations. The OECD (2006) Report indicates that registration thresholds varied across countries. However, the impact of these thresholds on administrative and compliance burden is "softened" in many countries with extended tax payment and return filing and/or with the use of 'flat rate' schemes for computation of GST liabilities.

This study also found that small businesses regarded the \$200 incentive voucher given by government upon registration as inadequate. Thus providing monetary incentives (higher than the \$200 given to small businesses) upon GST or any tax registration may be desirable. This research also found that small businesses

that believed that the GST was unreasonably complicated incurred higher GST start-up compliance costs. Another major policy implication for minimising start-up tax compliance costs is for government to ensure that the tax system is not complex. This particular point has long been emphasised by leading taxation scholars, such as Sandford *et al* (1989). In fact, lessons and experience from many countries suggest that for any tax reform system, simplicity is a precondition. Sandford *et al* (1989) recommend a simple tax structure for regular compliance costs, such as single rate, minimum borderlines, high threshold, minimum of special exemptions, beliefs and provisions. Pope (1998) asserts that simplicity of a tax system is often ignored by tax policy makers. Though Sandford *et al* discuss simplicity of a tax structure from regular compliance costs viewpoint, this is also applicable to start-up compliance costs. The empirical evidence presented in this research strongly supports this analysis. This study confirms that prior to the GST implementation a majority of small businesses resented doing GST work because they believed that the GST legislation was unreasonably complicated. Consequently, stability is important and if governments do not “get it right” the first time, start-up compliance costs would become higher.

Another start-up compliance costs minimisation strategy would be a comprehensive GST or a new tax education program for small businesses. Government could have employed a professional, independent from the ATO, with relevant experience and knowledge of the GST/new tax to head the education campaign for small businesses. This could be similar to the Inspector General of Taxation, which is independent to the ATO and was established “to primarily represent the interest of the business community to the government and the ATO with the objective of improving the administration of the tax system from the taxpayer’s perspective” (ACCI, 2004). It is common knowledge that small businesses treat the ATO or tax authorities with suspicion. For example, when conducting a pilot study for the survey, as well as managerial benefits interviews, some small business participants were reluctant to participate because they were suspicious of the researcher’s association with the “tax man”. Thus an independent office could give relevant information to small businesses, hence making, arguably, a smooth transition of the new tax.

Compensation for Start-up Tax Compliance Costs

The attitudinal research results suggest that the small business community resisted acting as “unpaid tax collectors” for the government. However, it could be argued that the evidence for this is not so strong. Moreover, as Sandford *et al* (1989) and Sandford and Hasseldine (1992) argue, small businesses are placed at a competitive disadvantage in the market place because of the disproportionate burden placed on them. This burden is state-created as the state has forced them to undertake the work of tax collection, which is different from an undertaking they have chosen. Arguably, since this “is a state-created disadvantage and not one arising from their inefficiency in the market they have chosen, the state has an obligation to remove, compensate for, or, at the least, minimise that disadvantage” (Sandford and Hasseldine, 1992).

Prior to GST implementation, compensation for small business role of “acting as unpaid tax collectors” was an cry throughout Australia. In the November 2001 Australia Federal election, the Greens Party proposed returning the first \$1,000 of GST collected by small business (up to \$2 million annual turnover) as compensation (*West Australian*, 2001). Thus as discussed by Pope (2001), based on the ‘user pays’ principle, compensation could be paid as a percentage business turnover or GST revenue collected, probably on some sort of a sliding scale. However, one problem of direct compensation is that it would be a significant cost to the government, given that at that stage, there were 1.2 million Australian small businesses. Another problem is that of equity. Certainly, it would not be proper to use Government resources to compensate small businesses that invested less in their start-up costs than better planned businesses that invested more. Thus, to alleviate small business of this situation, the government should have established a comprehensive compensation plan for small businesses to offset start-up tax compliance costs.

It is clear that GST start-up compliance costs impacted heavily on small businesses and the compensation plan could possibly be financed through higher taxation of larger firms. Moreover, at the time of the release of the findings of this research, the recommendation was for the government to increase the current \$1 million threshold for the use of a cash method of accounting for the GST. Notably the UK has a higher threshold than Australia. Pope (2001) notes that in April 2001, the UK raised the GST turnover limit for cash accounting to 600,000 pounds (nearly A\$1.8 million), thereby benefiting an additional 40,000 businesses. Thus with the release

of the 2007 Australian Federal budget, small businesses have an option to use a simplified method of calculating their GST liability if it suits their requirements.

Equipment acquired for GST purposes, as well as other business expenses, such as accounting fees, are tax deductible, and some small businesses may claim back these expenses at the end of the financial year. Thus, to avoid small business experiencing cash flow problems, the government may provide short-term relief for capital allowance and accounting fees. Moreover, small business would not have to wait until the end of the financial year to claim tax deductibility of these expenses. Additionally, this study has confirmed that the use of accountants for advice lowered GST start-up compliance costs. Thus, governments may consider giving small businesses immediate relief on accounting fees for GST or any tax advice costs incurred prior to its implementation. However, it is recognised that this suggestion may administratively be difficult in practice.

Capital allowance for small businesses to invest in computers and associated software may reduce not only start-up tax compliance but also tax recurrent compliance costs. This is because businesses that had no computers prior to GST implementation acquired and used them for GST returns and record-keeping, as well as in their general business operations. For example, computers could be used for word-processing, the Internet and communication. Although, this research has confirmed that managerial benefits arising from stringent record keeping for GST purposes do exist, from a start-up compliance cost point of view, short-term relief for small businesses should remain a top priority of government policy. Moreover, for small business, managerial benefits are outweighed by excessive compliance costs and are only noticeable long after GST implementation. Despite this, governments should continue to encourage small businesses to acquire and use technology, particularly in the electronic lodgement and monetary transfers of tax.

CONCLUDING REMARKS

This research has been a pioneering task and the first comprehensive academic study on start-up compliance costs of a new tax anywhere in the world. Whilst this study is a major contribution for academics and policy makers in countries yet to introduce the GST, it is hoped that the Australian government will recognise the magnitude of start-up compliance costs of any new tax or major regulatory measure for small businesses. Various recommendations for minimising small business start-up tax compliance costs have been identified in this paper, and it is hoped that policy makers both in Australia and in other countries take them on board in the years ahead.

This study has also identified certain issues that were beyond the scope of this study and thus recommend that these issues be researched further. Five major recommendations arising from this study can be made for further research. A study on small business attitudes on the introduction of any new tax is recommended. Secondly, an investigation on the extent of small businesses advisers' fees relating to implementation of a new tax is suggested. A third research recommendation is on the psychological compliance costs of a new tax. Fourthly, further research on managerial benefits arising from the use of computers and better record keeping due to compliance with taxation requirements is recommended. Finally, a study on the operating start-up tax compliance costs may be undertaken.

When a pilot study of this investigation was conducted, small businesses showed resistance to the introduction of the GST. Moreover, results of this study confirm that small businesses that did not support the overall tax reform incurred higher GST start-up compliance costs than those who were positive. Thus the extent of this situation can be investigated on a larger scale focusing on any new tax. This investigation also confirms that small businesses that used accountants as their main source of advice for GST incurred lower start-up compliance costs. This suggests that smaller businesses are likely to lack technical knowledge in dealing with taxation issues, hence rely more on external advisers. Thus further research can be undertaken to explore this situation so that governments can have strategies in place for small businesses when a new tax is introduced.

Another issue that arose from the discussion with small businesses in this research, as well as the survey's open ended questions' responses, was that prior to the GST implementation, they had to think more about how their businesses would cope with the GST (psychological compliance costs). Thus for further research, small business start-up psychological compliance costs of a new tax is recommended. Although this research was

inclusive of managerial benefits, it was not undertaken on a larger scale. A comprehensive managerial benefits research study is suggested. Finally, it is recommended that when a new tax is introduced or a major tax is revised, a study should be carried out into the correlation between a country's start-up compliance costs and start-up administrative costs for small businesses. Thus an estimation of the operating start-up compliance cost of a new or revised tax is recommended.

This author acknowledges that although there were few participants for the investigation of managerial benefits, however, the face to face interviews provided rich and valuable information.

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Footnotes

¹ Other countries, for example, South Africa and Botswana term it Value Added Tax (VAT) and this is synonymous with the Goods and Services Tax. GST will be used throughout this paper. The GST is a broad-based indirect tax of 10 per cent and is levied on most supplies of goods and services consumed in Australia, with most food, health and education services zero-rated (GST free).

² The Review of Business Taxation (RBT) chaired by John Ralph, was established to make a range of consultations and to recommend redesign of business tax arrangements. The RBT final and rather complex Report was submitted in October 1999. This included the abolition of one Commonwealth (Wholesale Sales Tax) and nine States indirect taxes, to be replaced with a single broad-based consumption tax, the Goods and Services Tax (GST) as the WST applied only to a range of goods, and services were not taxed, despite Australia's predominant operation of service industries rather than manufacturing industries.

³ The Australian Prime Minister, Kevin Rudd, convened Australia's 2020 Summit on the 19th-20th April, 2008 to help shape a long term strategy for the nation's future. It was agreed that the review of the Australian tax system be acted upon immediately.

⁴ The Review of Business Taxation (RBT) chaired by John Ralph, was established to make a range of consultations and to recommend redesign of business tax arrangements. The RBT final and rather complex Report was submitted in October, 1999. This included the abolition of one Commonwealth (Wholesale Sales Tax) and nine States indirect taxes, to be replaced with a single broad-based consumption tax, the GST, as the WST applied only to a range of goods, and services were not taxed, despite Australia's predominant operation of service industries rather than manufacturing industries.

A MODEL FOR CLOUD COMPUTING READINESS IN A SOUTH AFRICAN UNIVERSITY

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ABSTRACT

The main objective of this paper is to develop a model for cloud computing readiness in a South African university. A case study of Tshwane University of Technology (TUT) was used to determine the critical factors for cloud computing readiness. The model tested four major critical factors namely need-change readiness, structural readiness, participation readiness and, acceptance and use readiness. Results of the tests shows that structural readiness is more critical followed by acceptance and use, and need change readiness while participation readiness was ranked last. This paper utilized the technology acceptance model TAM, and makes a significant theoretical contribution to the literature on the research of technology acceptance and use.

INTRODUCTION

The desire for identification in order to acquire a competitive advantage has made South African Universities to depend on information technology (IT) so as to improve on their effectiveness and efficiency. University's processes and operations are getting automated, campuses networked and data sources centralized. However this has not come so easily as universities spend colossal sums of money on information and communication technology (ICT) both acquiring and maintaining the ICT infrastructure. Despite of these huge spending, the universities still have many network related problems. Many experience intermittent network connections that cause poor and slow services making the staff not to effectively do their work. This has been a major reason for the numerous complaints from students who end up striking and destruct academic programs. It is therefore paramount that universities should leverage on scalable IT over the internet and move towards decreased costs on IT software and hardware by applying cloud-enabled services called cloud computing.

Many researchers (Sienkiewicz, 2009; Swaminathan et al, 2009; Goldstein, 2009; Smith, 2009) have defined cloud computing and all noted that cloud computing offers numerous core benefits to organizations that include reduced costs, automation, hardware independence, high availability and increased flexibility. Cloud computing also helps to minimize risks associated with internet security, such as secrecy, privacy, integrity, regulatory compliance, availability and e-discovery. Therefore, it is a good idea for universities to acquire it. However, changing from one technology to another may be costly, time-consuming and risky. It is important that an assessment for the universities readiness to change to cloud computing is done prior so as to provide an understanding whether to proceed to change or not. Cloud computing readiness assessment is also vital in providing experts with the guidelines for the designing, implementation and recommendation of a cloud solution. This is also crucial in determining the functional and non functional requirements of the system.

As (Stamford, 2008; Sienkiewicz, 2009; Swaminathan et al, 2009) noted, before an organization can change to cloud computing different factors have to be considered. If the complexity of these factors is not well established, successful implementation of cloud services is hindered. The organization also need to counter check the necessity, readiness, suitability, and the meaning of the services it renders. Researchers on readiness (Ojo et al, 2008; Jennett, 2003; Khoja, 2008), argue that for an organization to be said ready for an IT innovation it should relatively be advanced in the areas that are critical for Information and Communications Technology (ICT). It should be ready and prepared to participate in the networked world. Sienkiewicz, (2009) also agreed

that comprehensiveness and routine facility analysis is another factor that should be considered for cloud computing readiness.

This paper utilized the technology acceptance model (TAM) (Davis, 1986; 1989) to develop a model for cloud computing readiness at Tshwane University of Technology (TUT). This study extended TAM by four constructs, participation readiness, need-change readiness, structure readiness and, acceptance and use readiness. The study was guided by a primary research question of *how can cloud computing readiness model be developed to serve as a reference point for its implementation at TUT ?*

RELATED LITERATURE AND CLOUD COMPUTING READINESS MODEL

Researchers (Parasuraman, 2000, Lin & Hsieh, 2006) assert that, for an organization to be ready for technology its people should accept its introduction, be ready to adopt it and then use it. The technology acceptance model (TAM) (Davis, 1986; 1989) is a key underpinning theory in explaining the critical factors of users' behaviour towards technology acceptance. Technology readiness index (TRI) (Parasuraman, 2000), is another important theory developed to study and measure users' tendency to accept and use technology. Several researchers (Walzuch et al., 2007; Fang, et al., 2009) that evaluated TRI indicated that it provides a better understanding of technology readiness and acceptance and that its constructs; optimism, discomfort, and insecurity affect target-specific perceptions of usefulness and ease of use. However, in the research of (Lanseng, & Andreassen, 2007) it is evident that users might gain some comfort and perceive the current technology easy to use rather than accepting and adopting to a new one. Hence users' behaviour should be established beyond acceptance. TAM addresses this element more satisfactorily that is why it was opted for this study.

Different research studies (Davis et al., 1989; Taylor & Todd, 1995; Mathieson, 1991) have compared TAM with other already existing models and TAM proved to be better in predicting users' behavior on acceptance of technology. However other researchers (Venkatesh & Davis, 2000; Igbaria et al., 1997) argue that, for better performance, TAM's constructs may be modified or extended as they may not apply in all situations and with all organizations. That is why this study decided to extend these constructs in order to fit the university's environment and the technology being studied.

2.1 Cloud Computing Readiness Model

As also noted by (Ojo et al, 2008; Khoja, 2008), a proper model should be followed during an organization's readiness assessment. In this study, the followed model categorizes the steps that are taken in the assessment as phases. At phase 1, the study seeks to determine the overall readiness. But before this is assessed four constructs have to be assessed at phase 2 namely; need-change readiness; structural readiness, participation readiness; and acceptance and use readiness. The constructs at phase 2 are further facilitated by other attributes which have to be determined at phase 3 some of them are also moderated by attributes at phase 4 making it a bottom-up structure approach.

For this model, in order to determine the need change readiness four attributes need to be investigated these include; need identification and satisfaction for the change; users' dissatisfaction with the current system due to unavailability, inaccessibility and unreliability; awareness that may lead underutilization of the current system and; comfort with technology. For structural readiness three attributes were investigated these included; regulations and policies, work ethics and organizational culture and availability of resources. Participation readiness on the other hand had also three attributes that led to its establishment these are; benefits of cloud computing; users willingness to acquire knowledge related to cloud computing its usage and effects and; financial benefits related to cloud computing. Lastly the acceptance and use readiness has three major attributes facilitating factors, perceived ease of use and perceived usefulness. With perceived ease of use having attributes that included personal factors, technology and service providers. The perceived usefulness was tested with three attributes that included quality, satisfaction and expected benefits. On the other hand the attributes of facilitating factors included willingness and technical factors.

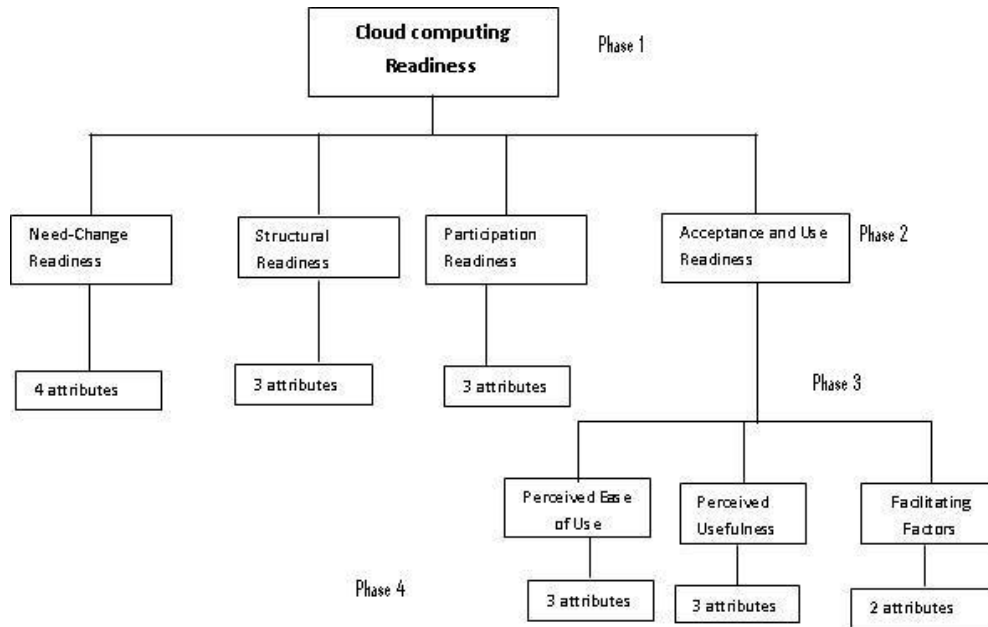


Figure 1: (As Modified from Ojo et al., 2008)

RESEARCH METHODOLOGY

Data collection methods were both descriptive and interpretive. Data was collected primarily by using close-ended questionnaires based on five-point Likert scale: strongly disagree (1), disagree (2), neutral (3), agree (4) and strongly agree (5). The questionnaire was complemented by structured interview, which were designed to target the employees of the directorate of ICT at TUT. Because of the few numbers of people working in the directorate of ICT at TUT and the unwillingness to corporate by others especially those who thought that this research was intending to take away their jobs, data had to be collected from three campuses that is Polokwane, Soshanguve and Pretoria. The questionnaire was designed based on the model figure 1 above with five major sections that comprised the four constructs; need change readiness, structural readiness, participation readiness and, acceptance and use readiness. The individual questions for each of these sections were the attributes that make up each construct. These constructs were moderated by factors that included; working experience, age, gender, level of education and awareness of cloud computing.

Figure 2, below shows the systematic methodological process followed during the study of establishing the readiness indicator.



Figure 2: Methodological process

DATA ANALYSIS

The structured interviews were meant to get the inner feelings, perception, experience and attitude of the users towards cloud computing. These interviews helped in the write up of this paper and in the formulation of the attributes for each construct. The questionnaires were analysed using SPSS

Limitations

This survey was faced by a problem of lack of cooperation from the targeted population. Much as enough explanation was made to explain the intention of the study some people thought the study was targeting their jobs leading to a high non-response rate close to 30% of the targeted population. Another problem was some users had limited knowledge about cloud computing that led to some questions answered neutral (neither disagree nor agree). Others were newly appointed staff who had not acclimatized to TUT's ICT infrastructure and policies. Therefore, much as this model may generically be tested on other universities, the results of this study may not accurately represent all universities in South Africa.

Analysis of Results

Table 1 shows that 42.3% of the respondents had never had of cloud computing. From the summaries the awareness was not in anyway influenced by the age or gender of the respondents, but working experience was slightly related.

Table1. Summaries of the participants

		Percentage %
Age	21-25 years	23.1
	26-30 years	19.2
	31-35 years	34.6
	36-40 years	15.4
	41+	7.7
Gender	male	69.2
	female	30.8
Working Experience	0-2 years	34.6
	3-5 years	15.4
	5-7 years	15.4
	8-10 years	11.5
	10 +	23.1
Highest Qualification	N.Diploma	38.5
	Btech	46.2
	Mtech	11.5
	Dtech	3.8
Awareness of Cloud computing	yes	57.7
	no	42.3

The respondents' scores were also analysed by their responses in order to obtain the model scores as indicated in table 2 below. From the mean of the question "have you ever heard of cloud computing" it is evident that a good number of respondents had very limited awareness of cloud computing

Table 2: Descriptive Statistics for Model Scores

	N	Minimum	Maximum	Mean	Std. Deviation
Period spent at Working place	26	1	5	2.12	1.423
Working experience	26	1	5	2.73	1.614
Age	26	1	5	2.65	1.231
gender	26	1	2	1.31	.471
Highest qualification	26	1	4	1.81	.801
Have you ever heard of cloud computing	26	1	2	1.42	.504
Valid N (listwise)	26				

Model Strength and Reliability

The readiness reliability of cloud computing was tested by evaluating the results obtained from each constructs using Cronbach's Alpha. From the results of structural readiness, the alpha coefficient of 0.840 indicates that TUT's infrastructure is enough to acquire cloud computing however, the acceptance and use readiness, need change readiness, participation readiness faired poorly with alpha coefficients of 0.538, 0.509 and, 0.098 respectively. This implies that much as TUT may be having enough infrastructure the people may be not ready for cloud computing. There are multiple reasons for this. Out of the people interviewed 50% had been at TUT for 0-2 years and 34.6% had a working experience of 0-2 years. The other factor is that 38.5% of the interviewed people had only National diploma means the awareness of cloud computing itself is very limited.

Table 3 Cronbach's Alpha Coefficient of the constructs

Constructs	Cronbach's Alpha	Cronbach's Alpha on standardized items	Number of items
Need change readiness	0.509	0.526	8
Structural readiness	0.840	0.840	11
Participation readiness	0.098	0.517	6
Acceptance and use readiness	0.538	0.589	10

The models attributes were also tested to find the correlation between the constructs being moderated by awareness results table 4 below shows how the constructs and attributes are related. The results indicate a high positive correction between structural readiness and awareness and also indicate that awareness is crucial for acceptance and use readiness.

CONCLUSION AND RECOMMENDATIONS

This study proposed a cloud computing readiness model. The attributes of the constructs were used to design the questionnaires that were used for the study analysis. The results from data analysis indicate that cloud computing awareness highly affects its readiness. They also indicate that structural readiness is more critical for cloud computing followed by acceptance and use, and need change readiness while participation readiness is ranked last. This model is expected to make a significant theoretical contribution to the literature on the research of technology acceptance and use and also to act as a guideline for cloud computing readiness. This study recommends that for better results this model need to be tested with results from different universities since each university has different ICT growth rate.

Table 4: Pearson Two Tailed Correlations of Constructs

		Awareness	Need change readiness	Structural readiness	Participation readiness	Acceptance and use readiness
Awareness	Pearson Correlation	1	-.134	.145	.088	.434(*)
	Sig. (2-tailed)		.523	.481	.669	.027
	N	26	25	26	26	26
Need change readiness	Pearson Correlation	-.134	1	.172	.161	-.246
	Sig. (2-tailed)	.523		.410	.441	.236
	N	25	25	25	25	25
Structural readiness	Pearson Correlation	.145	.172	1	.022	.421(*)
	Sig. (2-tailed)	.481	.410		.916	.032
	N	26	25	26	26	26
Participation readiness	Pearson Correlation	.088	.161	.022	1	-.114
	Sig. (2-tailed)	.669	.441	.916		.580
	N	26	25	26	26	26
Acceptance and use readiness	Pearson Correlation	.434(*)	-.246	.421(*)	-.114	1
	Sig. (2-tailed)	.027	.236	.032	.580	
	N	26	25	26	26	26

* Correlation is significant at the 0.05 level (2-tailed).

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AFFIRMATIVE ACTION APPOINTEES' PERCEPTIONS REGARDING TRAINING MEASURES IMPLEMENTED BY MPUMALANGA PUBLIC HOSPITALS

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ABSTRACT

Since 1995, efforts have been made to overcome the skewed human resource patterns at high skills levels in South Africa through the repeal of old legislation and the commencement of various new government Acts. Beyond the legislative requirement, the success of human resource transformation is highly dependent on the implementation of an effective affirmative action (AA) programme supported by effective training measures. Such programmes usually have noble intentions but their effectiveness and success are greatly dependent on the support of the historic pool of skilled mentors, mainly the male whites. With a view to understanding the efficiency or lack thereof of the mentoring programmes associated with affirmative action policies, this research was conducted at 15 Mpumalanga public hospitals among 250 affirmative action beneficiaries and 18 mentors. Among other things, the main views of the affirmative action appointees suggest that mentorship programmes play a pivotal role in fulfilling their developmental needs. Furthermore, suggestions are that the success of training measures depends not on mentoring capabilities, but also on the commitment of both mentors and the management to the process of transformation. Therefore, training measures should follow a well-structured process providing mentors with knowledge on mentorship imparting skills, and mentees with the engagement and maximisation of learning abilities.

INTRODUCTION

Prior to 1994, South Africa was characterised by imbalances such as unequal and discriminatory history in its employment patterns on the basis of racial discrimination that largely affects disadvantaged blacks (Finnemore, 1999; Bendix, 2001). This type of practice channelled blacks into the unskilled and semi-skilled labour force and this, in essence, created a greater opportunity for white workers to pursue careers in elite posts (Munetsi, 1999). What seems excessive is that this legislation prohibited advancement by blacks to both skilled and managerial level portfolios and from performing skilled jobs in a white suburban environment (Greef and Nel, 2003; de Beer, 1998).

Employment discrimination was one of the defining features of the apartheid system and was entrenched through a range of statutory provisions, which is, relevant to this discussion, included the *Black Building Workers Act*, 1951 (Act No. 27 of 1951), which prohibited blacks from performing skilled jobs, such as plasterwork, painting, sign-writing and plumbing.

In the area of employment, the most visible legislative measures designed to afford racial privileges were incorporated into the policy of job reservation (Adams, 1993). Acts, such as the *Industrial Conciliation Act*, 1924 (Act No.11 of 1924), were affirmative action (AA) instruments to ensure the prioritisation of jobs for whites, and organised white labour made it legal to reserve jobs for whites in exclusion of cheaper black labour (Greef and Nel, 2003). Training opportunities for blacks were, as such, limited to the homeland universities, although later to technikon institutions, which were ill-resourced compared to their white counterparts. The result of the discriminatory legislation was a concentration of blacks in lower-level jobs in the workplace for the

following reason: “*Black people were regarded as servants and considered lacking direction for life or as people to whom orders should be given, not from whom orders should be taken*” (Kahlenberg, 1996).

In response to the training and employment injustices articulated above, but also in dire need to overcome the skills shortage in the country and, specifically, among blacks and women, the new government introduced affirmative action legislation, such as the Employment Equity Act, 1998 (Act No.55 of 1998). This Act, among others, was introduced to correct the imbalances of discriminatory practices, repealing discriminatory laws, such as the *Wage Act*, 1937 (Act No. 44 of 1937), that prevented trade union intervention in representation of worker interests (Nel, 1997).

The need to rectify all these imbalances and to ensure representivity in occupational categories is well articulated in the *White Paper on Transforming of Public Service* (Republic of South Africa: 1995), subsequent legislation and corresponding AA programmes. The intention of such government legislation was that AA programmes should allow special measures to be taken to ensure that people from disadvantaged groups, specifically blacks and women, in and outside the public service, would be identified and appointed to prevent a high concentration of blacks in lower level skills, as articulated by Kahlenberg above.

The successful implementation of AA measures should be visible when appointees are able to execute duties independently. Among the factors that have an influence on the success of affirmative action appointees is mentoring. De Beer (1998); Meyer and Fourie (2004) describe “mentoring” as a dynamic and reciprocal relationship in a work environment whereby a more advanced and experienced incumbent helps a less experienced person who has a developmental potential to develop in some specified capacity. The mentor’s role is to give work-related information and act as a role model for the person being mentored. Some of the fears associated with mentoring relationships in South Africa are perceived fears that the persons being mentored could in future take their mentors’ jobs. This, according to Wingrove (1993) could mean that mentors are less willing to assist AA appointees, since the increasing skills development of black people could have the resulting effect of white people being retrenched and having fewer opportunities. Mkhwanazi (1993), too, supported by Rankhumise (2000), argue that employees who are against the AA programme do not give support and training to AA candidates. This perceived reverse discrimination could therefore hamper the development of black and female employees and impact on the success of cross-cultural and racial integration in the labour market.

The ideal would be that mentors of AA appointees should carry the responsibility of ensuring that those candidates adjust to expected tasks and skills successfully. A study conducted by Rankhumise, Netswera and Meyer (2001) found, however, that AA appointees are not provided with adequate mentoring. In this study, 59,8 per cent of the respondents surveyed believed that mentors are less supportive of the AA appointees. Other authors, such as Herholdt and Marx (1999), recommend that mentors, who are opposed to an AA programme, should attend sensitisation workshops to ensure that they understand the context of those programmes.

In terms of section 2 of the Skills Development Act, (Republic of South Africa 1998b), government departments should ensure that AA is reinforced through training and mentorship measures to provide AA candidates with an opportunity to acquire new skills. Any barriers, including resistance to change, employment equity, skills development plans and training interventions, have to be overcome in accordance with the internal policy of the organisation concerned (Esterhuysen, 2003).

Mentoring has been shown in Europe to contribute positively to retention, succession planning and knowledge management (Clutterbuck, 2003). Locally, it is acknowledged that AA training interventions can lead to high standards of performance (Meyer and Fourie, 2004). Only through effective mentoring programmes AA appointees can perform in line with set standards and would, thus, be able claim promotion based on merit (Thomas and Robertshaw, 1999). However, mentoring programmes work best if mentees are allowed to select their own mentors based on relationships already established. The success of mentoring, therefore, always involves commitment on the part of the three parties, namely the mentor, mentee and the management (Thomas and Robertshaw, 1999). Beyond the commitment of the three involved parties, the successful implementation of AA is wholly dependent on the following factors, according to Meyer and Mabaso (2001): Firstly, commitment based on sound principles should be obtained, thereby identifying the reason for the mentoring programme; for example, a need to speed up the development of future leaders. Secondly, mentors should be properly identified and screened for their roles, as well as evaluated. Willing and able mentors easily ensure a successful process.

Thirdly, the appropriate matching of mentors and trainees would ensure that mentors have relevant experience in the speciality of the persons being mentored. Mentoring interventions require varying degrees of effort and resources dependent on the needs to be met to achieve specific outcomes.

Positive interventional outcomes are also dependent on skills, knowledge and value, or attitudes (Celliers, 1995). Tsukudu (1996) sees the successful implementation of mentoring as dependent on the training of mentors in fostering competence requirements and an understanding of the mentoring process. Mentor training should prepare male mentors for cross-gender sensitisation to overcome stereotypes that influence judgement with regard to the person being mentored.

Considering that AA legislation have been implemented over the past nine years, a relevant question to ask is, among others, how do the two beneficiary types view the implementation process of training measures ; that is, AA appointees of different gender and race?

OBJECTIVES OF THE RESEARCH

Against the given background and associated challenges, this specific research was intended, firstly, to assess how the beneficiaries of AA, that is, black and women appointees, view training interventions. Secondly, this would make it possible to determine the effectiveness and shortcomings of the current, implemented programmes and give insight into the influence of interventions on the performance of AA appointees.

METHODOLOGY

The research on which this paper is based is quantitative design. A sample of 205 respondents from 15 Mpumalanga public hospitals was selected to participate in the research using systematic sampling methodology from the various lists that were provided by the hospital administrators. The focus was on the former Transvaal Provincial Administration (TPA) hospitals, which are historically predominantly white and which are a 'fertile ground' for probing transformation processes. The survey questionnaire collected two types of data sets, namely those of a biographical nature and mainly closed responses to Likert-scale AA statements (Bless and Higson-Smith, 1995). From the distributed 205 questionnaires in the 15 hospitals a total of 108 questionnaires were returned fully completed, constituting a 53% response rate. This response rate is deemed adequate for generalisation purposes (Sarantakos, 1997). This quantitative data was analysed at an inferential statistical level with computation of chi-square tests to check for variations in perceptions on the success or failure of the AA programmes.

In conducting the research, the following ethical considerations were followed (De Vos, 1998). Firstly, informed consent was obtained from the participants by way of information leaflet outlining the purpose of the study and the process to be followed for data collection were explained to the participants. Secondly, the participants were further informed of their rights that they had a right to participate or not in the study. Thirdly, participants were informed that anonymity will be maintained as no personal identifiers were used in the research.

A structured questionnaire with five-point Likert scale type questions was used to gather views on AA training, mentoring experiences and challenges and shortcomings.

RESULTS OF THE STUDY

In the survey, 72,2 per cent of the AA appointees were blacks, 24,1 per cent were whites and 3,8 per cent were Coloureds, while no Indian appointees participated in the study. Although the survey findings came close to the South African population demographics, which for 2004 was approximately 37 million, or 79,3% blacks, Mpumalanga itself has, in comparison, much fewer Indian residents (Statistics South Africa, 2004). An enquiry made to ascertain non-participation by Indian AA appointees revealed that, although Indians were present in the province, their numbers were fewer compared to that of other racial groups.

The gender distribution among the surveyed AA appointees was 26,9 per cent male and 73,1 per cent female. Considering that one of the main intentions of AA programmes is gender redress, it seems, therefore, that this particular legislative aspect is well met at Mpumalanga public hospitals.

Views on AA Support Held by Different Gender Groups

While AA programmes are intended to benefit mainly women, it is expected that the views of the supposed beneficiaries should be echoed and discussed on a continuous basis to instill confidence in redress processes. In the survey, highly significant differences were found (Pearson Chi-Square = 0) between different gender groups, revealing that females (76,9%) were, mainly, not given any training. More significantly also (Pearson Chi-Squared = 0), female (82,8%) AA appointees were not allocated mentors on appointment to assist them to perform new responsibilities.

Table 1: Views on AA support held by different gender groups

	Gender				Person Chi-Square
	Male		Female		
	Yes N (%)	No N (%)	Yes N (%)	No N (%)	
When you assumed duties as affirmative action appointee, were you given training?	18 (64,3)	10 (35,7)	15 (23,1)	50 (76,9)	0,000
During your training as affirmative action appointee, were you allocated a mentor?	13 (48,1)	14 (51,9)	11 (17,2)	53 (82,8)	0,002
	Gender				
	Male		Female		
	Agree N (%)	Disagree N (%)	Agree N (%)	Disagree (N %)	
Hospital Management attempts to motivate affirmative action appointees before embarking on the training and development programme.	11 (39,3)	7 (25)	32 (41)	22 (27,4)	0,033
The effectiveness of training interventions depends on the capabilities of mentors.	22 (75,8)	3 (10,3)	46 (61,6)	14 (17,9)	0,036
There are still barriers against the training and development of affirmative action appointees in the hospital.	19 (65,6)	6 (20,6)	36 (46,2)	16 (20,5)	0,015
The implementation of affirmative action programmes is supported by training interventions.	22 (78,6)	4 (14,2)	39 (49,4)	16 (2,2)	0,024
There are no guiding policies pertaining to the implementation of affirmative action training interventions in the hospital.	15 (53,6)	9 (32,1)	38 (48,7)	10 (12,8)	0,033

While all gender groups agreed that hospital management has motivated them before embarking on training developments, the difference, which is highly significant (Pearson Chi-Squared =0,03), is that female appointees seem to be the most motivated. A significant gender difference was that it was found (Pearson Chi-Squared = 0,03) that more males than females generally believed that there were no guiding policies for the implementation of AA training interventions at the hospitals.

In literature, Celliers (1995) and Tsukudu (1996) reveal that the effectiveness of mentorship is, among others, dependent on knowledge, attitude and competence. Respondents of different gender groups agreed, although at significant different levels (Pearson Chi-Squared = 0,03), with the majority of male respondents (75%), who were more in general agreement, that the effectiveness of training interventions depended on the capabilities of mentors.

While males were generally allocated mentors and given some training, it is the same gender group (at Person Chi-Squared = 0,01) that perceived the training to be hindered by barriers in their hospitals as compared to their female counterparts. And, of course, the majority of male respondents (78,6%), significantly, in contrast to their female counterparts (Person Chi-Squared = 0,02) believed that the implementation of AA programmes was supported by training interventions.

Views on AA support Held by Different Racial Groups

In this section, racially-based views are echoed, since race is the second beneficiary type identified in this research besides gender. To this end, more black appointees than whites significantly (Person Chi-Squared = 0) believed that AA appointees were not given enough time to develop.

Table 2: Views on AA support held by different racial groups

	Race				Person Chi-Square
	Black		White		
	Agree N (%)	Disagree N (%)	Agree N (%)	Disagree N (%)	
Affirmative action appointees are not given enough time to develop.	43 (50,6)	23 (27,1)	2 (2)	10 (52,6)	0,007
Historical educational disadvantages have resulted in black employees being less capable than white employees in the work situation.	51 (58,6)	21 (24,1)	2 (11,1)	9 (50)	0,003
Mentors should be held responsible for the failure of the person mentored by them.	44 (52,3)	20 (23,9)	3 (15,8)	14 (73,7)	0,003
There are still barriers against the training and development of affirmative action appointees in hospital.	40 (58,2)	18 (20,9)	4 (21,1)	5 (26,3)	0,045
The success of training and development in the hospital depends on the commitment of the management to support the process.	76 (88,4)	1 (1,2)	13 (68,4)	3 (15,8)	0,012
The hospital has an internal policy on how to implement affirmative action.	27 (31,4)	33 (38,3)	1 (5,3)	4 (21,1)	0,011
There is a resistance amongst those holding higher posts against the training of affirmative action appointees.	44 (50,5)	11 (12,6)	-	9 (47,4)	0,001
The implementation of affirmative action is not supported by effective training interventions.	35 (40,7)	28 (32,6)	3 (15,8)	4 (21,1)	0,037

More white (73,7%) respondents, significantly, compared to their black colleagues (Pearson Chi-Squared = 0) believed that mentors should not be held responsible for the failure of the persons mentored by them, and this was contrary to what black (52,3%) respondents attested.

More black AA appointees than whites significantly (Pearson Chi-Squared = 0) believed that historical educational disadvantages had resulted in black employees being less capable than white employees – it was somewhat strange that their white colleagues disagreed. Significantly (Pearson Chi-Squared = 0,4), more black AA appointees than whites believed that there were still barriers against training and development at the hospitals. A significant (Person Chi-Squared = 0,01) proportion of black appointees argued that the success of training could only be realised if there was a commitment on the part of the hospital management to support the process.

On the availability of internal policies for the implementation of AA, there were significant differences (Person Chi-Squared = 0,01), with more black than white respondents believing that internal policy guidelines for the implementation of AA did not exist.

AA programmes are mainly about balancing power relations, either on a gender or racial basis, and often, the beneficiaries have historically been sidelined from possible benefits, as is the case with blacks and females, generally, in South Africa. The historic beneficiaries in this case, white males, mainly assume the role of mentorship and are generally perceived to be non-supportive. Here in this survey too, all white respondents significantly (Pearson Chi-Square = 0.03) believed that there was no resistance by those holding higher posts to training AA appointees, which black respondents refuted.

Significantly too (Pearson Chi-Squared = 0), black AA appointees believed that the implementation of AA programmes was not supported by effective training interventions.

LIMITATIONS OF THE STUDY

Since every research has its own limitations, this research was not an exception. There were important limitations in this study that have a bearing on the results. First, the population of the study was only in the Mpumalanga public hospitals, therefore, the researchers could not claim generalization of the results to the entire South Africa. Secondly, since the method indicated that participation was voluntary, it could be that there may have been some differences in opinions with those who did not choose to complete the questionnaires. Finally, another study could be important on a broader scale preferably in the nine provinces of South Africa with the view of clarification and explore further the findings of this specific study.

CONCLUSION AND RECOMMENDATIONS

Not enough evidence emerged from this research to suggest that the implementation of AA training interventions programmes in the sampled Mpumalanga hospitals is either a resounding success or a failure. Even so, there is still a general agreement among AA appointees of all races and all gender groups that training interventions play a pivotal role in developing the competence of AA appointees. It could further be concluded that for training interventions to succeed, the following three factors should be considered, at all times:

Firstly, there should be sound principles on which training interventions programmes should be established at each hospital, rationalising and identifying the reasons and need for establishing such interventions. In the case of the researched hospitals, such principles seemed not to have preceded the implementation, except that those hospitals saw the national AA legislation as a sufficient guideline, which turned out not to be a useful assumption. While the expression of commitment by the hospital management can be viewed through the literal implementation and funding, enough efforts had, however, not been made to lay down the principles of successful implementation. Although one of the general intentions of the AA legislation is the rectifying of gender imbalances, it appears from these findings that none of those hospitals had prioritised gender sensitivity, seeing that none of the female AA appointees had mentors nor received any training.

Secondly, there should be a strong commitment on the part of the three parties involved in the implementation of AA training interventions programmes; that is, the hospital management, the trade unions and the AA appointees. In the case of this research, although some commitment was expressed by both mentors and AA appointees, such commitment had not been formalised, nor did it form part of the “rules of engagement”.

Thirdly, mentors should be properly identified, screened, skilled, with a positive attitude about the programme, and well paired with their AA appointees mentees. No evidence whatsoever emerged from this research that indicated that suitable mentors were identified, that they were properly screened, and that they were committed. There were AA appointees without mentors – predominantly females.

The following recommendations are suggested:

It would be very useful if each of the hospitals implementing AA mentoring embarks on an internal process for developing sound principles aligned to the requirements and objectives of AA legislation tailor-made for such unique posts. Such principles would result in an exercise to identify the need, the gaps that should be closed, and the expected outcomes of their own context-bound mentorship programmes.

Hospital management should foster training intervention as a support mechanism to fast-track the skills development of AA appointees in their respective jobs. There is a need to have an office or officer that would facilitate the mentorship programme, giving a voice to both mentors and AA appointees, at the same time enforcing and monitoring the implementation.

Since the value of training interventions are not apparent to everyone, it would help if the management of the hospitals offer sensitisation workshops on the importance of various interventions and make information available to the mentors and prospective AA appointees, so that they would understand what is expected of each role-player.

In conclusion, this paper has provided the factors that are critical to the success of affirmative action appointees. This valuable information provided could however be utilised to ensure that appointees given necessary support they require to execute their duties successfully.

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THE ILLEGAL MIGRATION IN SOUTH AFRICA: QUESTIONING THE NEGATIVE IMPACT ON THE HEALTH SYSTEM

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ABSTRACT

The purpose of this paper is to analyze and evaluate the impact of the illegal immigrants on the South African health system. The problem of the impact that the illegal immigrants have on the South African social services features high in current academic debates. Although the way the South African government handles the migration matters in terms of their policies and legislations is said to be one of the best, the country recorded a worse xenophobic attitude in 2008, when the country's citizen deliberately and intentionally attacked the foreign nationals as a way of trying to give a wakeup call to the government about the slow pace of service delivery and their frustrations of sharing scarce resources with foreign nationals. Such was viewed as the worst xenophobic attitudes ever shown by an African country before, and has attracted too much regional and international condemnation. Although there is an argument regarding the lack of empirical data from both government practice and academic perspective about the impact that illegal immigrants have on South African social services such as health, but the increased xenophobic attitudes between the locals and immigrants emanating from competition for scarce resources in the country, may validate the claim that the negative impact does really exist. This paper will therefore explore the impact of the illegal immigrants on the South African social services, with a greater focus on the negative impact on the health system.

INTRODUCTION

The United Nations Commission and World Watch Institute mentioned that; of the 110 people that migrate from their native areas in 1994, 30 million were those that moved within their own country from rural to urban areas, while 23 million were displaced by either war or social unrest (Solomon, 2001:75). The latter moved by war and social unrest are the most unfortunate as they are involuntarily forced to migrate to nearby peaceful neighbouring countries characterized by positive social and economic development. In such countries they are likely to become victims of xenophobic attitudes instead of getting the necessary protection and safety articulated in the 1951 Convention signed by most progressive countries worldwide. Featuring high, in the dispute between locals and the illegal immigrants of South Africa is the competition for scarce resources such as business customers, employment in the informal sector and access to basic resources such as health. It is along this argument that today the protection of refugees; either legal or illegal has become a major concern for progressive countries worldwide. The negative impact of illegal immigrants of foreign countries medical system has thus far become an academic debate lacking scientific validity.

The 1951 Convention, which is a convention adopted by various countries at international level to effectively deal with refugee matters, states that refugees are entitled to seek and enjoy asylum in other states and to be treated with dignity and accorded equal treatment. To a certain extent that is understood to mean that illegal immigrants or refugees are to enjoy the same equality and rights of access to resources as the locals do. Despite the convention, many countries still practice their own sovereignty even though they signed the convention, and continue to comply in their own terms. This is because of various impact felt by the receiving countries. Many of them still reduces the refugee burden by imposing carrier sanctions, restriction of access through VISA requirements, compulsory assignments to reception centers, prohibition to take up jobs, restrictive regulations regarding medical service or detention well beyond short period which may be required for identification purposes (Rutinwa, 2001:14-15).

THE ILLEGAL IMMIGRANTS HEALTH IN INTERNATIONAL CONTEXT

It is maintained that most immigrants are poorly educated and lack basic skills required for middle-class jobs-jobs that include health insurance coverage (Rubenstein, 2008:2). This implies that wherever such immigrants crossed on to the other countries whether legal or illegal, they will impact negatively to the health system of such countries. While the issue of health impact may reign supreme in this matter, but the economic deterioration in most countries is the cause for locals to develop negative sentiments against the immigrants, whom they start to view in the light of competing with them on their scarce resources. Countries, however, despite their commitment to the Convention apply different mechanisms to deal with such challenges. In the United States it is recorded that immigrants either legal or illegal have constant use of the emergency rooms, although some studies in the same country allege disproportionately lower access to- and usage of- unpaid health care by the immigrants (Wikipedia, 2010:3). For that matter there are various perception as to how the immigrants either legal or illegal impact on the public health system of the United States. Julian Lincoln Simon, A University of Maryland and Cato Institute scholar, concluded that although the immigrants are believed to be putting less stress on the public health system of the US; that cannot be a similar case with the elderly immigrants and many refugees depending on the public service for survival. The illegal immigrants' population in the US is said to be between 7 and 20 million, with the biggest chunk coming from Mexico (Wikipedia, 2010:13). It has been established that the US federal and State treasuries are being drained for use to pay for the health and other care for babies born from illegal immigrants. By virtue of their birth in the US, they qualify for public welfare aid, and that has promoted the birth rate between 300 000 and 350 000 per annum (Immigration Watch Canada, 2005: 1-2). Ultimately such has bankrupted and closed many hospitals in the country. About 60 hospitals closed their shops because of unpaid medical services provided while other 24 were on the verge of closure.

The poll on migration conducted on ITV news in the UK in 2005 indicated that most British citizens are of the view that immigrants whether legal or illegal are a strain to their public services (Global Issues, 2010:8). Health topped high on the agenda as the immigrants are believed to be coming from areas vulnerable to diseases and therefore risking the areas they are migrating to. With most infectious diseases linked to immigrants of African origins. Such arguments are based on the fact that immigrants are said to be coming up with diseases that the UK has been able to deal with successfully and curbed down some decades ago. The resuscitation of such diseases by the immigrants is looked in the light of dragging the country back in terms of medical attention.

The European Union on the other hand has had policies to control Immigration from non-member states (Global Issues, 2010:9). Spain is said to be facing a larger number of immigrants from Morocco and other North African countries because of political conflict in those countries. The pressure as such experienced by some well developing countries, often becomes too much to be handled. When the pressure is too much to handle, such countries often introduces measures that may result in international condemnation. Spain on the other hand was threatening to deport illegal immigrants residing within its borders, as such is exposing their country to both social and economic impacts. The British government was also considering restricting access to nationals of Bulgaria and Romania immediately the two countries can gain admission to the European Union. This is also based on the belief that such a measure will relieve their country of some negative economic impacts.

Coming closer to Africa, the Botswana country regards the Zimbabweans as forming the largest part of the illegal immigrants and impacting negatively on their health facilities (Campbell, 2006: 7-8). That is believed to be motivated by the extension of the national health services cards which considers the children born of foreign parents in Botswana. Such services are abused when foreign nationals may prefer that even when impregnated in their country of origin, they may consider going to give birth in a foreign country so that they can access such services. In South Africa areas around the Mpumalanga Province bordering the Mozambique are experiencing a high rate of foreign nationals having to give birth in South African hospitals so that their children can access both free medical treatment and register for monthly social grants. That makes South Africa a cash-cow for those economically and politically struggling countries next to its borders.

A study conducted by Lesetedi & Modie-Moroka (2007) revealed that the illegal Zimbabwean immigrants are of the opinion that the Botswana health system is cruel to cross border migrants; to the extent that access to health care by an immigrant is made difficult that they have to pay P20 for consultation at a Community Health Centre, while a Motswana only pays P2, and also a P60 per day for a foreign national to get medication at their health centre. Although the Botswana National health system have some elements of cruelty against foreign nationals, which also contradict the countries loyalty to the 1951 Convention, such anger by the immigrants may not be directed to the Botswana nationals by immigrants, but to their government. Of which in South Africa is the

opposite, in which instance the government has user friendly and accommodative policies, but with its citizens practicing a different attitude.

MANAGING MIGRATION IN SOUTH AFRICA

Applicable legislations by the South African government to manage migration include; *Aliens Control Act, no. 96 of 1991*, *The Refugees Act no. 130 of 1998* and the *White Paper on International Migration*. The White paper on International Migration attempts to deal with migration matters both in the context of globalization and South Africa's integration into the SADC. According to Joseph (2001:141), it identifies immigrants into three categories, namely those wishing to stay in the country permanently, those not wishing to stay in the country, whether authorized or unauthorized, and refugees. As such the White Paper's purpose is to ensure that immigrants whether, legal or illegal or refugees shall be accorded the most humane treatment and equality as possible.

South Africa like Botswana and Namibia is one of those flocked by a highest rate of illegal immigrants of either Zimbabwean or Mozambiquean origin and recently from other African countries outside SADC. As such, legislations adopted by the country for managing migration are said to be one of the best in the world, and therefore exposing the country to various forms of abuse by foreign nationals. It is one of the few countries in the world that allows foreign nationals to work and study in the country while their application for asylum is still under consideration (Matlou, 2001:121). The South African migration legislations allow the foreign nationals the freedom to determine their own destiny and may not necessarily be kept in camps. In terms of the South African legislations they shall be allowed to associate, mingle and practice business with the locals, and thus becoming part of the South African community.

In the Republic of South Africa, the asylum component of the legislation is dealt within the Department of Home Affairs. The country has shown a highest interest in accepting refugees from other countries. Such positive attitude is demonstrated by the current ruling leadership, because of their experience as apartheid political refugees in both African countries and European countries. The attitude is, however, not shared by many South Africans who are not in political leadership of the country and who never experienced the hospitality in foreign countries claimed by the current political ruling leadership. South Africa is currently participating in various international and regional refugee matters and is one the 15 countries worldwide contributing its largest budget to the UNHRC (Matlou, 2001:130). It holds membership of the 1951 Convention and its Protocol relating to refugees, the 1067 OAU Convention Governing Specific Aspects of Refugee Problems in Africa, Executive Committee of Higher Commissioner for Refugees and International Organization for Migration. That shows the countries love for progress, immigrants and refugees, although such is limited to the government leadership level, with less understanding showed by the local communities.

The health of illegal immigrants in South Africa

Most studies conducted in South Africa are quite about the negative impact the illegal immigrants may have on the South African health system. While in developed countries such as the US, such argument is also not quantifiable through scientific evidence, the South African perception about the same matter come to the same conclusion. The relationship between the fall of the health system of the country and the consumption of such system by the illegal immigrants has not been scientifically cleared as a fact. In South Africa, some evidence proves that most illegal immigrants often prefers going back to their country of origin for medication than going to a South African hospital that may expose them to the hardships of deportation.

Most assumptions by residents of economically well off countries, emanating mostly from xenophobic acquired thinking are that there is a link between the spread of diseases and the presence of the illegal immigrants. Maharaj (2004:14) indicted that the health status of illegal immigrants is often difficult to be predicted, but most of their subtropical diseases are revealed when they are detained, which brings to light epidemic potential diseases like yellow fever, cholera, HIV. Such assumptions suggest that immigrants are exposed to various infections and may therefore put too much strain on the health system of a country. If discovered in jail is worse because they have to access medication quickly, than in their hiding place where they have a choice of not going to hospital for fear of deportation.

Can the negative impact be quantified in South Africa's health system?

Kok, Gelderblom, Ouchou & Van Zyl (2006:121) are of the opinion that immigrants whether legal or illegal exposes receiving countries to unfamiliar infectious agents. Global Issues (2010:8) in view of such assertion also states that the Health Protection Agency (Britain) estimated that in 2005, 75% of heterosexual infections were in all probabilities acquired in Africa. Such assumptions put the immigrant of African origin in a question box by the receiving countries. That as a fact quantifies the assertion held by many that immigrants are suffering from unusual diseases which may require more medical attention than what an average local person will require. Perceptions differ about the illegal immigrants' negative impact on the health system of South Africa. Solomon (2000:12) bases his arguments of such impact on the fact that most illegal immigrants come from "strife-ravaged areas", and therefore they would need more medical attention than the locals. This correlate with what the US discovered about the plight of illegal immigrants in their country. They are said to consume more health insurance than locals to the extent that in 2005, immigrants received Medicaid at a faster rate than American natives (24.2 percent compared to natives at 14.8 percent) (Rubenstein, 2008:3).

The South African government passed a legislation or rather a directive in 2007, through the National Department of Health that illegal immigrants shall have right of access to public health services in the country. That also gives them the right to access ART in public hospitals and health centers. The directive itself may put stress on the insufficient health resources of the country. Already the South African resistance groups such as TAC were formed because the health system of the country could not afford to provide ART's to their local citizens. Therefore opening free access of the health service by the foreign nationals, while the locals access the service so hard, may further fuel the xenophobic attitudes. The South African government has been playing and is still playing a very dodgy game when coming to the rolling out of ART's to the locals. The impact of this legislation or directive on the South African is that it has all the ingredients of causing a conflict between them and the immigrants. While country itself may be experiencing a challenge of providing sufficient health service to its own people, but open and free access to illegal immigrants may give the locals the impression that their access to basic services is limited by the presence of the illegal immigrants even if it is not so.

Illegal immigrants are said to have always relied heavily on South African public hospitals and clinics (Kloppers, 2006:162). A study conducted by Ngomane in Polokwane (2009) revealed that the Zimbabwean illegal immigrants in that city are satisfied about the level of health service they are receiving. They are happy about being given treatment without producing identity documents, given free medication, although they complained about the attitudes of doctors and nurses and being given panado's for all ailments that they are suffering from. Failure by the health system to require some personal identification information is exposing the health system to future forms of abuse and is a cause of failure by receiving countries to determine the impact that foreign nationals may have on their health system.

Thus far, the negative impact of the illegal immigrants on the South African health system remains imaginary. Palitza (2010:1) indicated that even if refugees and illegal immigrants have same rights to access health services as the South African citizens, many have not and are not able to exercise such rights. The compromise of such rights may emanate from three sources; namely; firstly not all doctors and nurses are aware of such legislation; secondly, the illegal immigrant or refugee may not openly fight for such rights for fear of deportation and finally, the South African health services itself find it difficult to provide sufficient drugs required by patients, either local or foreign. There should always be recognition of the distinction between promising people free health care and providing that kind of service. While South Africa struggles to conform to the international standard of providing service, but the provision of the service itself requires financial resources and affordability. The provision of panado for all ailments in South African public hospital is a practice that has a long history. It is not only limited to foreign patients, but to all, including the locals. And that has always let people to hypothesize that the health system is unable to afford its citizens, the best possible health assistance expected of them.

CONCLUSION

The paper specifically focused on the illegal immigrants and their impact on the South African health system. Many writings regarding the negative impact of the illegal immigrants have looked at the impact on employment as a fact that causes animosity between the locals and the immigrants. Especially that the immigrants all over countries normally take the jobs at lesser salaries than the locals will do. Countries have complained about the impact of the illegal immigrants on the health system of their country. It is in the health terrain that citizens have never openly complained about themselves competing with the locals. Thus far the negative impact of the illegal

immigrants on the health system of most host countries remains difficult to be accepted as a fact. Some realities does however, exist that some countries are failing to afford the health of their own citizens. Therefore extending access to foreign nationals is perceived to have a negative impact, although it has not been scientifically proven.

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THE PARTY POLITICAL INTERFERENCE IN THE SOUTH AFRICAN PUBLIC HUMAN RESOURCES APPOINTMENTS: IMPACT ON SERVICE DELIVERY

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ABSTRACT

South African public service is characterized by great loopholes of which include poor service delivery. Service delivery is about the promotion of the general welfare of the people. One of the major problems which contribute immensely to the failure in the promotion of the general welfare of the people is the lack of recognition of professional expertise within the public service. Political affiliation and connections has turned to be more prioritised when job opportunities are given in the government sector. Consequently incompetent candidates are allocated duties which do not meet their professional capabilities. High rate of graduate unemployment increases as the employment market increasingly becomes difficult to penetrate without being politically correct and connected. This discourage most students to continue with their studies as they tend to view that as a waste of parental resources and time because they are likely not to be employed with their ability compromised at the expense of political nepotism. The South African government (the ruling party) is having the so called "policy of cadre deployment" with no consideration of the due processes set out in the Constitution about fairness and equity in the employment of the South Africans. The political electoral party system in the country have lead to a situation where a winning political party believes that it has got a right to control all the employment appointments in the public service on the basis of factional loyalty. This paper hypothesises that the only solution for the quality service delivery in South Africa will be the consideration of professional expertise in the public service.

INTRODUCTION

The politicization of the public service is one of the problems experienced in most countries of the modern political administration. Amongst others the services are been politicized due to the consideration of the political affiliation in the appointment of staff as well as the procurement system. The South African public service is characterized with quite a number of personnel challenges which are usually about the conflicting duties between politicians and the public servants. This situation has lead to mal-practices within the public service with politicians interfering in the administrative issues like human resource duties. The deployment of the public servants on spoils systems has been found to be contributing immensely to the failure of service delivery, transparency and accountability. This paper will therefore keep its relevance to critically evaluating and analyzing the South African administrative political interface, the dichotomy model in public administration, and conflict of interest in civil service job appointment, the merit and spoils system, abuse of power in civil service job appointment and the irony of the affirmative action appointments. The analysis of the aforementioned aspects is solely meant to determine the impact of party political interference in the South African public administration.

THE SOUTH AFRICAN POLITICAL ADMINISTRATIVE INTERFACE

The start of a democratic South Africa after 1994 brought about quite a number of conflicts which arose between politicians as ministers and public officials in the administration of the government institutions. Those conflicts include differences in roles, resources, personal tenure in their posts, personal background, recruitment and

professional base (Maphunye, 2005). It has also been argued that some of the conflicts arose as a result of personal compatibility and mutual respects between senior public servants and ministers having similar tasks to undertake. Further arguments confirm that politics are gradually being characterized by a convergence between the roles of senior public servants and the politicians (Abarbach, Putnam and Rockman, 1981). To over emphasize this argument, one would argue that now more than ever, the public officials find that their respective spheres of operation is increasingly overlapping, to an extent that politicians and public servants have to think and act the same. Public officials in government institutions or public agencies have a different role to play, some are characterized with the administrative or management as their predominant responsibility, they are actually duty bounded with daily running of their institutions using their official authority and carry executive responsibility of efficiency, probity and legality. To achieve these duties they require a number of technical prerequisites like the expertise their particular departments will require in functioning effectively. However there can be differences in resources controlled by the ministers and by the officials. This can bring very dramatic differences because the appointed officials have the responsibility to supervise hundreds of officials who also have the responsibility to get the work done. The only problem to be experienced in this regard is when the staff and contractors to be acquired for the performance of the institutions is acquired with a failure of consideration of qualified candidates. This is mainly the cause of failure of services to be delivered by those officials together with the contractors.

The success and promotion of most senior public officials in the public sector is based on the personal and socio-political characteristics or advantages (Maphunye, 2005). Many of the senior public officials have been well educated (usually at graduate level), some of them have professional qualifications in law, politics, or a variety of other subjects. Irrespective of their qualified capabilities, their appointment and promotion is mainly based on the political background. It can be argued that such government practice has got a major negative influence on young students who intends to become experts in such fields and with no interest in politics. Therefore they tend to loose passion in those fields of public administration. They argue that acquiring expertise knowledge is a waste of parental resources, since their counterparts do not need academic knowledge to get employment, but instead only their local and provincial political ties and connections provide them with employment. It is argued that today most youth of university going age have changed their focus to business and politics than education. This is mostly because the two can assure them good life. The ruling governments globally have a perception that people who do not belong to the ruling party or claiming to be politically neutral have got a tendency of failing or sabotaging the objectives of the ruling party. This emanates from the need of such people to gain support of voters in the upcoming elections. To a certain extent this theory has been held by many as correct although there is no a scientific evidence which suggested that South Africans belonging to an opposite ideologies have ever sabotaged the developmental programmes of the ruling party. In the South African context there is still a lack of distinction between the state resources which belongs to the tax payers with the ruling as their custodians and the resources of the ruling party.

Politicization of the public Service

The world today is faced with a serious challenge in the public institutions whereby in order for the citizens of the country to access certain services, their political affiliation will have to play an important role. The politicization of the civil service can be described from three dimensions: *Firstly*; the politicization of the civil service as the participation in the political decision making, *secondly*; as a partisan control over bureaucracy and *finally*; the political involvement of the public servants in a country's politics (Rouban, 2003). It is also important to note that the politicization of the public service differs from one country to the other. In countries such as one party state, it will be worse, while in democratic states it might be better off. It is argued that the subject of the politicization of the civil service is the one that academics in the science of public administration, civil servants and the politicians alike opt to avoid, as they would emphatically state that there is a clear line of demarcation between the functions of a political leader, particularly a cabinet minister as a head of his department and those of a civil servants (Marais, 1993). On the other hand, the degree of civil servants in political involvement as citizens and voters of the state is one example of the politicization of the public service in exercising their democratic right of voting. This emanates from the need for public officials to exercise their rights in line with the national constitution and there is nothing wrong with that involvement.

The public service must firstly have a staffing system free from the political influence and in which recruitment, hiring, promotions and terminations are based on merit and secondly public servants must perform and be perceived to perform their duties in an impartial manner (Kernagan, 2005). A non-partisan system in the public

service can only be maintained and practiced if the staffing system is protected from the political influence, the merit system has been firmly implanted and commitment must fairly be based on professionalism. The tendency of ministers to abuse their powers in deciding who should be appointed is to be avoided. Government ministers have a tendency of frizzling the filling of the senior positions if they feel that people in the wrong circle of political relationship are appointed in their ministries. This tendency must be avoided because the empty vacancies which are left for political reasons has got a serious impact on the services to be provided. Public administration within which the public servants function constitutes the foundation of a non-partisan public service, merit and non-partisanship do not and cannot exist in vacuum.

In most democratic countries a common example could be the shaping of the dividing line between the party in power and the government officials which might occur if senior public officials for example attend a political meeting. It is also said that in countries like Botswana, public servants are allowed to attend political meeting and rallies and can become political office bearers of political parties. Politicization in this case, occurs when the executive decides on appointment, transfer, promotion and allocation of contractors and the day to day operational matters of a department. It has been argued that public servants have to carry out instructions in a politically unbiased manner like it is used in the British tradition that was adopted in South Africa along with the cabinet system of government (Marais, 1993). In the South African context it seems that significant numbers of senior public servants are not in favour of political neutrality and this tendency might be attributed to the country's turbulent political history. Politics and policy are to be separated from administration and, therefore, politicians should make policy decisions, while public servants execute those decisions (Kernagan, 2005). Public servants might not engage in partisan political activities and must not publicly express their personal views on government policies and administration. Public servants are expected to provide forthright and objective advice to their political masters in private and confidence. In return, the political executive protects their anonymity of public servants by publicly accepting responsibility for departmental decisions.

Opponents of neutral public service justify their opinion on the basis that the present political changes in South Africa needs more politically committed and involved senior public servants. It is also said that such senior officials should be in close contact with the ruling party, as a way to implement the vision and missions of the ruling government without doubts in redressing the imbalances of the past apartheid government. The opponents argue that political neutrality will disturb the transformation process in this country and this is actually the justification of awarding their loyal members with the public sector jobs. The Cadre deployment policy of the ANC outlines that there is a need to deploy cadres to various organs of state, including the public service and other centers of power in the society (Mail & Guardian, 1999). The deployment or re-deployment of cadres means appointing politically correct members to any position in government according to party interests (Maphunye, 2005). Since this is not stated explicitly members would be expected to toe the party line, fostering party supremacy over state-controlled bodies. Most political parties like the Democratic Alliance have criticized what they see as a clear example of the ruling party's attempt to politicize the public service. In most cases the ruling party in South Africa has been found to be denying these allegations and dismissing the cadre deployment policy as unfounded theory propagated by those in the left. Irrespective of such denials, such perceptions persist and remain a challenge for the South African ruling government, which intends to be associated with good governance. It is further argued that the criteria which is required when appointing is based on either the relationship with the senior public official but, which is not applicable in most cases because it is questionable, unlike that of a former political exile or prisoner or more generally possess struggle credentials. The credentials amongst others include a clear record of participation in the anti-apartheid political struggle.

Dichotomy model in politicization of the civil service

The Dichotomy model is traced to the politics-administration dichotomy, which grew out of the early administrative reform movement and its reaction against spoils system in the period 1887 and later (Mafunisa, 2003). The Politics-Administration dichotomy holds that political interference in administration would erode the opportunity for administrative efficiency, that the policy-making activities of government ought to be wholly separated from the administrative functions, and that administrators had to have an explicit assignment of objectives before they could begin to develop an efficient administrative system (Shafritz, 1985). The political interference in the public service does not only impact on the efficient and effectiveness of the civil service but also on the constitutional rights of the citizens of the country which is "accountability and transparency" which is been compromised by accounting to the party that to the public. Accountability is one of the main problems experienced by the citizens of the South Africa as the South African ruling party is said to be giving priority to

the party and ignoring public accountability. The dichotomy model is also known as the neutral model of administrative responsibility. It is also based on the acceptance of the Politics-Administrative dichotomy, which specifies that the public servants should be neutral in matters of policy, but professionally political superiors. It is actually the instrumentalist view of the role of the public servants.

The dichotomy model sees the public service as distinct from the political process of the government administration (Mafunisa, 2003). It advocates a clear separation between politics and administration. It points to the inherent dangers of a fusion between politics and administration and by extension of the party and the state. The central argument of the dichotomy model is that governments come and go, but the public service remains. Therefore, it is very much pivotal that public service needs to be characterized by professionalism. The convenience of the dichotomy model lies in its intentions to protect public administration from interference by elected office-bearers and members of political parties in the day-to-day administrative activities of government departments. It is also important in helping to protect public administration from political patronage, where party political connections become the over-riding criteria in public personnel functions such as recruitment, transfer, training and promotion.

The primary argument of the proponents of this characterization of the relationship is that the public service needs to be neutral, professional and shielded from the world of politics⁷. In South Africa, the Democratic Alliance (2000) is propagating this position, at least in its criticism of the ruling party's Cadre Policy and Development Strategy (1997) (Zille, 2009). It argues that by pursuing a policy that seeks to deploy its members in key positions within the public service, the ruling party is crossing the line between party and state, and interfering with the independence and professionalism of the public service. While this is considered a strong political point made by a political opponent, the Democratic Alliance on its own could not take a sound political statement when they won the Cape Town Metropolitan in 2006. They also could not maintain an ANC aligned municipal manager due to political mistrust.

Conflict of interest in the field of Public Administration

It is important to start by clarifying the concept conflict of interest as it has been found to be poorly understood in public administration domain (Kanyane, 2008). A conflict of interest can be defined as the acting or failing to act on a matter in which the public officials have to ensure that the benefits are received (Public Service Commission, 2003). The practical example in this regard is when the senior official appoints a certain candidate based on the relationship that they have which can either be politically, socially or family influenced. This becomes the problem when that candidate is underperforming or failing to undertake the duties delegated to him and that such senior is unable to take disciplinary measures against the person.

Others define conflict of interest as a situation in which a person such as a public official, an employee or a professional, has a private or personal interest sufficient to appear to influence the objective exercise of his or her official duties (McDonald, 2003). It is important to note the two key things in this regard which are private and personal interest. Conflicts of interests interfere with the professional responsibilities in a specific way, namely by interfering with objectives of professional judgment (Kanyane, 2008). A major reason why clients and employers value a professional is that they expect professionals to be objective and independent. Throughout South Africa certain groups of elites are increasingly angry with the ways in which public power has been manipulated for selfish interests by those with good political ties and connections.

Legislative frameworks governing employment appointments in South Africa

In the Limpopo alone, conflicts of interest including political interference have been proved to be well alive (Kanyane, 2008). In the South African context the roles of the senior public servant are clearly defined by the Public Service Act, 1994 (Proclamation 103 of 1994) and related laws and policies. Such roles include policy-making, liaison with the political heads of their departments or ministries, representing the government in various forums, and implementing public policy in these structures. The Act outlines and regulates the composition and roles of the South African public service as follows: "In the making of appointments and filling of posts in the public service due regard shall be had to equality and other democratic values and principles enshrined in the Constitution" (Section 11(i) of the Public Service Act, 1994 (Proclamation 103 of 1994).

The nature of 'representativeness' is usually defined by relevant legislation (e.g. the Employment Equity Act, 1998 (Act 55 of 1998) and regulates the recruitment, selection, and promotion of government officials without unfairly discriminating on the basis of race, gender and disability in terms of the Affirmative Action (AA) policy. Most of the perceptions about the roles and the structure of the South African public service revealed that equality and other democratic values and principles as stated in the Constitution, which they maintained were being used in public service appointments and promotions. However, some perceptions also exist which suggest that negative aspects like nepotism, 'political connections and other networks' also play a role in the recruitment and promotion of senior public servants. A case in point on allegations of nepotism is that of a senior public servant who was appointed to a managerial post of a provincial department allegedly because he was a relative of the MEC, who was subsequently dismissed (Sowetan, 2000).

South Africa's senior public servants face the challenge of understanding the application of the "twin mandates" as part of their roles in the government departments. These mandates are the policies of the ruling party (as represented by MECs at provincial level or ministers at national level) and the 'administrative mandate' - the rules, regulations and directives of the various administrative heads of departments. Several perceptions from most senior public servants in the Limpopo provincial government levels strongly believed that failure to understand this inevitably leads to conflict and tensions between the political office bearers and administrative officials (Kanyane, 2008). However, they are hopeful that the new Public Service Laws Amendment Act, 1997 (Act 47 of 1997), will address such problems between the political office bearers and senior public servants as the amendment was drafted for this purpose.

Merit and Spoils systems in the public service

Public appointments should be governed by the overriding principle of the selection based on merit, by the well-informed choice of individuals who through their abilities, experience and qualities, match the needs of the public body in question (Jay, David, Norma, Kathrine and Alberts, 2001). This is called merit system it is actually where the expertise of a candidate is given a priority and it has nothing to do with political affiliation and any other form of the relations. A precise application of merit would meticulously define the selection criterion for example, experience, education, and performance on written test and the weight to be given to each (Meyer, 2002). Merit advocates would then rate the applicants on the criteria and select only the top performers.

Spoils system is actually about employing and promoting civil servants who are friends and supporters of the group in power for example in the case of the ruling party employing its affiliated members. A spoils system is the rewarding of political loyalty with public service appointments erodes institutional memory, disrupts service delivery and threatens the public interests as paramount (IDASA, 2008). This system results in the poor government services delivery and public accountability is also severely impacted. Spoils systems at times will involve the direct diversion of the tax payer's funds for private benefits, at times can even involve the direct taking of bribes by career and elected officials to achieve program outcomes favourable to the bribe-giver. This can be the actual selling of public jobs which contradicts with the relevant legislations governing the public sector in South Africa.

The abuse of Power and deployment of the ANC in the Public Service

A South African newspaper, *City Press*, claimed to have uncovered evidence of blatant abuse of authority and direct interference with the state administration by the ruling ANC in a gross violation of the Constitution of South Africa (City Press, 2008). This was after the findings that the provincial executives of the ANC in at least three provinces – Limpopo, Northern Cape and Free State province have effectively taken over control of state the administration. This proves that the ruling party, as a political party, is not only deciding on the political appointment of senior bureaucrats, but also fully controls the process. In Limpopo the former premier was instructed by his political organization that, they have arrived at a decision that he must transfer one Mr. Thobakgale to the Department of Safety and Security with immediate effect. This was because the party wanted to monopolize on the senior positions as they are the ruling party and that was a clear abuse of power on administrative issues. The ruling party's policy on deployment of cadres was that the extension of contracts and internal transfers of appointees are purely administrative matters that did not need to be brought to the attention of the deployment committee of the ANC (City Press, 2008). The instruction given to the Premier could be

thought of as purely undemocratic and contradiction of the principles of public administration provided by the South African constitution. Although ruling parties maintain their innocence in administrative interference, it is difficult to conclude that ruling governments has no influence on the appointment of senior managers in their government. A senior politician in Limpopo Province said that *“Electoral power is about controlling the state, if a party wins the elections, it must run the government. I don’t understand people who want us to take off our hands from the government when the ANC is the strategic centre”*. It terms of the Constitution of South Africa, 1996 (section 197), it is the responsibility of the provincial governments to ensure transparent and fair “recruitment, appointment, promotion, transfer and dismissal of members of the public service in their administration. Furthermore these appointments must not be made on the basis of political considerations. Section 197 (3) of Act 108 of 1996, states that no employee of the public service may be favoured or prejudiced only because that person supports a particular political party (Republic of South Africa, 1996).

In the North West province, the ruling party members demanded the dismissal of Premier Edna Molewa because she has renewed the contracts of several heads of departments in non-cooperation of an instruction by the party provincial leadership. If there is a view that the premier has deviated from these guidelines or acted beyond her constitutionally assigned powers then the Department of Public and Administration or the Public Service Commission would be the most competent arbitrators on this matter not the ruling party provincial leadership. There are many other examples of the ruling party more especially in the provincial government instructing that the cadres should be deployed in higher public service positions. The political parties are not supposed to dictate to government who it should deploy and who it should not deploy based on political loyalty. Ordinary citizens of the country are entitled to apply for any positions they qualify for regardless of their political affiliation. In terms of Employment Equity Act 55 of 1998 (section 2), the purpose of the act is to promote equal opportunity and fair treatment in employment through the elimination of unfair discrimination, implementing affirmative action measures to redress the disadvantages of the designated groups, in order to ensure their equitable representation in all occupational categories and levels in the workforce (Republic of South Africa, 1998).

The Affirmative action

In terms of Employment Equity Act 55 of 1998(section 2), there should be the implementation of affirmative action measures to redress the disadvantages in employment experienced by designated groups, in order to ensure their equitable representation in all occupational categories and levels in the workforce. Affirmative Action is linked to develop a public service that is proactive on development issues and capable of implementing sustainable development programmes. As a human resource development tool, “affirmative action’s role in resource development which is aimed in addressing structural employment inequalities and develop a reservoir from which skills can be drawn (Schwella, Fox, Burgher and Muller, 2002). As the ruling party in South Africa is one of the policy makers or vested with powers to pass legislations like the Employment Equity Act which provides for the Affirmative Action. It is a surprise when the very same policy making body deviate from the very same policies and considering political affiliation when appointing civil servants. Affirmative Action is referred to as the temporary intervention designated to achieve equal employment opportunities. The affirmative action since it provides that previously disadvantaged must be empowered, what the ruling party is expected to be doing is to enforce the civil servants to implement these policies. Affirmative action is one of the policies aimed at ensuring that poor, disabled, women and the entire previously marginalized are empowered.

Impact on the South African Public service delivery

In South Africa, constitutionally the administration of government is to be achieved through the appointment of suitable qualified people from the designated groups and representation of all occupational categories at all workplaces (Sebola, 2007). The South African government, therefore, owes it to the public to appoint the best qualified persons who comply with all the requirements of the job description and personal qualities for the job (Gildenhuys, 1997). Thus far, the South African public administration is said to be compromised for political nepotism, and service delivery is said to have been of unsatisfactory standard. Token appointments in which people with totally different skills are put into the employment positions not relevant to their knowledge and expertise, compromise the motive of service delivery and administrative efficiency promoted in the Constitution of South Africa, 1996

The South African government has pledged to its citizen to achieve its administration through measures that are economical, efficient and effective. That will logically mean achieving service delivery through skilled and

rightful human resources. The contradictory is the case when political nepotism is said to be reigning high in the public sector. It is said that in South Africa lack of service delivery is causally linked to political appointments in which managers' lack expertise, skills and knowledge in their area of work. In the South African context the political interference in job appointments which resulted in political nepotism had diverse impact on the South African communities. That ranges from the South Africans been robbed of their equal rights and opportunities to the public sector employment, the demotivated students who are to increase the high rate of graduate unemployment, conflict among various racial groups, ethnic groups and social groups. The rainbow nation thought of by post South African leadership remain but a pipedream

CONCLUSION

The paper addressed various aspects relating to the political interference of the ruling party in the appointments of candidates in the public sector. The paper totally discourages the political interference in this regard. The main argument raised in the paper is that the political interference is likely to lead to the appointment of people that are poorly qualified to lead programmes and projects in the public sector and that will lead to poor service delivery. While poor service delivery is a first priority, the political interference in the appointments of candidates in the public sector result in political nepotism which ultimately discourages most citizens not aligned to the ruling party. The paper used the dichotomy model, the merit and spoils system to support the arguments of an objective and an impartial public service.

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THE ROLE OF NATIONAL PARKS IN SOCIO-ECONOMIC DEVELOPMENT OF LOCAL COMMUNITIES: REFLECTING ON THE PILANESBERG NATIONAL PARK.

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ABSTRACT

The role of nature conservation resources such as national parks and nature reserves in South Africa was questioned in many academic literatures and conferences. While such arguments persisted in different academic disciplines such as geography, development, tourism and other management sciences, the underlying concern was lack of sufficient contribution by such resources to the local economies. Contrary to many assertions in most research findings as to the insufficient role of National Parks in the local economies, this study find out that the Pilanesberg National Park has demonstrated a good contribution to the local economies and empowerment of the local communities in contributing through tourism. This paper presents the findings on the contributions of the Pilanesberg National Park on the local communities of Mogwase, Moruleng, Mabele-a-pudi and Ledig. In establishing the socio-economic impact of the Pilanesberg National Park on the local villages, the research investigated both the employment and the impact of the parks tourism impact on households, private businesses and community based tourism.

INTRODUCTION

Tourism studies hold in common that while the basic aim of tourism development and growth is to maximise the economic, social and environmental benefits in a country, the practice has often produced a consumerate of both negative and positive socio-economic impacts that tend to have serious adverse impacts on local and indigenous cultural values (Asplet & Cooper, 2000:50). It is therefore important that tourism managers and planners bear in mind that, in the quest for development, tourism should not destroy the values people seek to protect in the community. The democratic South Africa has created an appropriate policy framework within which tourism can contribute optimally towards socio-economic development and poverty reduction through economic growth, income generation and job creation for the formally disadvantaged communities (Rogerson, 2004 & Wall & Mathieson 2006). From a more positive perspective, tourism has the ability to promote the potential social development through employment, job creation, income redistribution and poverty alleviation. It also generates substantial economic benefits such as, the balance of payment, income to the host communities, and employment to both the host countries and the tourists' home countries (Anon, 2001).

THE SOCIO-ECONOMIC IMPACT OF TOURISM

Tourism is one of the largest global industries with the highest growth rates. Along with economic opportunities such as employment creation and a high potential for growth, it is essential that social, cultural and ecological criteria be taken into account for the medium and long term sustainability of tourism operations and facilities (Saayman, Saayman & Rhodes 2001:443; Federal Ministry for Economic Cooperation and Development, 2002:2; and Mbaiwa, 2003:42; Visser & Magussen, 2003; Page, 2007). Tourism is a major force in the global trade; and it plays a vital role in the social, cultural and economic development of most nations. Inevitably, it has the potential to both preserve and destroy the heritage of a country (Visser & Magussen, 2003). According to Alderman (1994), cited in Zupan (2003:3), tourism can lead to economic development in neglected areas. It has the ability to revive the local economies and cultures and bring wealth back to the local communities. Well managed and planned tourism can create a demand for goods and provide local people with new jobs. In addition to employment, additional employment can be generated by auxiliary services, tourism development, road

improvement and professional services (Page, 2007: 387-392). In addition the local people may benefit from better local services, such as public transport, roads, health and recreational facilities (Page, 2007). Weaver and Lawton (2002:240 & 273) contend that the basic aim of tourism management at a destination is to maximise the sector's economic, socio-cultural and environmental benefits, while minimising the associated cost. In order to meet this objective, destination managers must understand the potential positive and negative impacts of tourism as perceived by the host community. (Weaver & Lawton, 2000:276; Richards & Hall, 2000:89, and Mowforth & Munt, 2000:25; Page, 2007: 387). Apart from obvious and visible effects on the economy and the physical environment, tourism can contribute to the socio-cultural changes in host societies, including changes in value systems, traditional lifestyles and community structures. According to Kreag (2001:8), the socio-cultural impacts of tourism need to be taken into account as communities will be the ones to live with the changes that will occur. Most of the time these changes are assumed to be positive. Doxy (1976) has demonstrated that tourism development can bear unintended social impacts on the host communities where their relationships with tourists degenerate from the state of euphoria and apathy to that of irritation, antagonism and forgetfulness. In a situation of such retrogression a variety of social ills, such as crime, prostitution, destruction of cultural artefacts and derogation of local culture could increase to unbearable proportions. However, tourism has also been seen to produce positive social impacts for host communities as people of different cultural background engage in education and technology exchanges. Often, local cultural establishments receive increased exposure to the international communities, but studies of social impacts of tourism on host communities in the developing countries remain inconclusive.

Tourism brings both economic and non-economic benefits and costs to the host communities. According to Edgell (2006:31), the economic impact of tourism amongst others includes the new businesses, job creation, increased income, new products, improved infrastructure, economic diversification and economic integration of the local economy and special services and opportunities to link with other services and products. Tourism is a powerful economic force for improving employment, foreign exchange, income and tax revenue. The generators of both positive and negative impacts of tourism for a city, province, country or a destination area are tourists. The economic impact of tourism spending is a function of the numbers of domestic and international tourists and their expenditures.

Tourism destinations are becoming increasingly competitive as more and more destinations look at tourism to become the new economic generator replacing declining activity in agriculture, mining and manufacturing (Goeldner & Ritchie, 2003:380). Mathieson and Hall (1982) quoted by Page & Connell (2006:343) and Page (2005:315) state that the magnitude of the economic impacts of tourism is influenced by five factors, which are: the type of tourism facility and attraction for tourists; the volume and level of tourist spending; the level of economic development in the region; the extent to which tourists spending is maintained in the region; and the extent of tourism seasonality in the region. On the basis of the aforementioned factors, it is possible to determine if the economic impacts will be beneficial or detrimental to the host communities. The economic impact that tourism can have on the host community or region depends on the area, the type of attraction, types of tourism available in the tourist destination, products or services sold and tourists spending. According to Page (2005:315), it is possible to identify some of the common economic benefits of tourism based on the five factors outlined here such as: the generation of income for the local economy; creation of new employment opportunities; improvements to the structure and balance of economic activities within the locality; and the entrepreneurial activity encouraged. There is no question that tourism delivers benefits, but it is not perfect. There are costs and benefits and they do not accrue equally. Improperly planned development of tourism can create problems. The demand of tourism may come into conflict with the needs and the wishes of the local residents, whereas at the same time thoughtless developments, inappropriate developments, overdevelopment or even unfinished development can easily damage the environment (Goeldner & Ritchie, 2003:34). Tourism has the potential to bring about positive developments which can contribute positively to the local economy. As a result the lives of the host communities will be developed, but at the same time if tourism is not well planned it can result in a negative impact on the host community. Depending on the planners of tourism, it can either be beneficial or damaging to the host communities.

RESEARCH METHODOLOGY

For the purpose of this research quantitative methods were used to gather information relevant to the study. Questionnaires were used to solicit information from the respondents from the communities around the Pilanesberg National Park, specifically, Mogwase, Moruleng, Mabele-a-pudi and Ledig and employees of the

Pilanesberg National Park. The research results were coded and analysed in collaboration with the Department of Statistics of the University of Limpopo. The descriptive statistics were used to summarise the research results in terms of frequencies, percentages and charts.

RESEARCH FINDINGS AND DISCUSSIONS

The purpose of this research was to establish the contribution of National Parks towards the socio-economic development of the local communities around the National Parks. The research sample comprised of 252 respondents. The respondents composed of government employees, private sector employees, business owners, tourism industry employees and the students. All the respondents were from the four beneficiary villages of the Pilanesberg National Park namely: Mogwase, Moruleng, Ledig and Mabele-a-pudi.

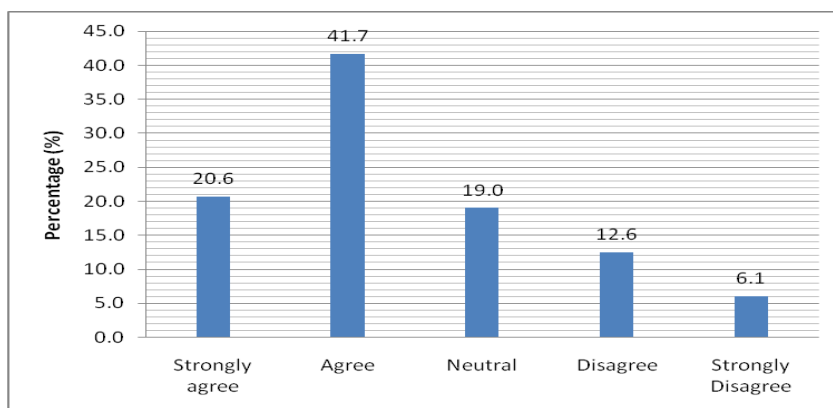
THE EMPLOYMENT IMPACT BY PILANESBERG NATIONAL PARK ON THE LOCAL COMMUNITIES

The aim here was to determine the way in which the National Park is employing its staff, whether it employs the local people from the beneficiary communities or not. It was important to look into this variable to establish if the local people are benefiting from the National Park in the form of employment. To determine this, the research focused on the following, establishing if the Pilanesberg National Park draws its employees from the beneficiary communities and if they do, the number of employees employed in the National Park and whether the National Park promote entrepreneur development.

Employment of the local people

A majority (62.3%) of the respondents are of the opinion that the National Park draw most of its employees from the four beneficiary villages. This is evidenced by a higher number of respondents working in the national park who are from the beneficiary villages. 18.7% disagree with the fact that the National Park draws its manpower from the beneficiary communities. The reason for those who disagree might be those people working in the National Park and know a number people especially the white people who serve as the National Park management working with them which are not from the local areas. Only 19% are neutral. It can be concluded that the National Park draw most of its employees from the four beneficiary communities. This indicates there is a good working relationship between the National Park and its beneficiary communities.

Figure 1: The National Park draws most of its employees from the beneficiary villages

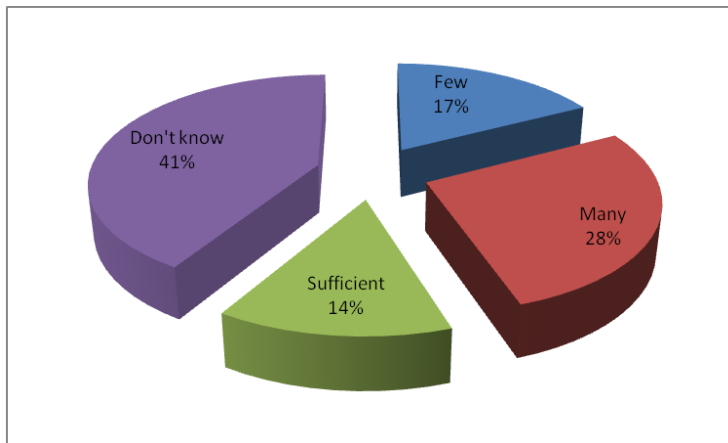


The general opinion indicated in figure 1 indicates that the locals are indeed benefiting from the activities of the National park. As Sebola (2007) put it, the significance of nature reserves resides in their ability to benefit the locals through job creation and entrepreneurial opportunities.

Number of locals employed in the park

Figure 2 indicates that 41% of the respondents do not know how many local people are employed in the National Park. 17% indicated that only few local people are employed in the National Park. 28% indicated that the National Park employed many local people, while 14% of the respondents indicated that a sufficient number of people are employed in the National Park. The research results demonstrate that the National Park employed a sufficient number of the local people and this lead the researcher to conclude that the local people are benefiting from the National Park through employment. The issue of staff complement is known only by the human resource people who have the statistics showing the number of the local people employed by the National Park and the number of those that are not from the beneficiary communities.

Figure 2: The number of the local people employed in the National Park



The overall picture that can be drawn from figure 2 is that there is satisfactory level of the role played by the national park in the employment of the local people. That shows a proper management of the local resources to the benefit the local communities.

Promotion of entrepreneurship development by the national park

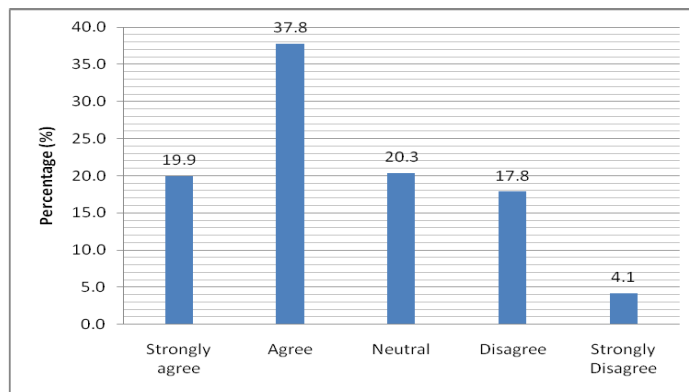
The research findings depicted by figure 3 revealed that 57.7% of the respondents are of the opinion that the National Park promotes entrepreneur development in the local areas. These could be the respondents who are actively involved in the tourism industry either working in the National Park or owning tourism related businesses and understanding the role that the National Park is playing in their businesses. 20.3% of the respondents are neutral while 21.9% of the respondents are of the opinion that the National Park is not promoting entrepreneurship in the local areas. These could be the respondents who are not involved in the tourism industry and do not even participate in any of the activities of tourism. One of the strategies of Pilanesberg National Park is to constantly identify opportunities and inviting communities and emerging entrepreneurs to participate in those opportunities identified (Boonzaaier & Collinson, 2000:25).

The overall picture drawn from figure 3 is that, in general entrepreneur development is promoted through the Pilanesberg National Park. Such findings correlate clearly with the overall pictures drawn from figure 1 and figure 2 about the active business role played by the national park on the livelihoods of the local communities.

DEPENDENCE OF THE LOCAL BUSINESSES ON THE ACTIVITIES OF THE PILANESBERG NATIONAL PARK

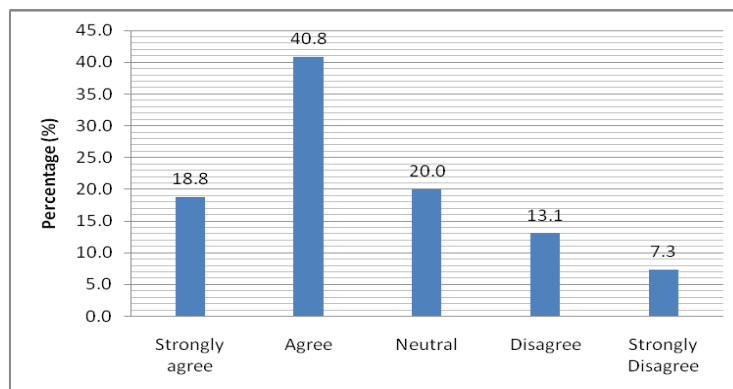
The aim was to establish the dependence of the local businesses on the National Park, that is, to prove if whether the local businesses' existence can depend on the National Park and its activities. The reason was also to establish if there is a good relationship between the Pilanesberg National Park and the local businesses especially those which are tourism related. To prove this the research probed the role played by the Pilanesberg National park on the existence of the local businesses.

Figure 3: The National Park's promotion of entrepreneur development in the area



The majority of the respondents (Figure 4) which constitute 59.6% agree that the local businesses are dependent on the activities of the National Park, especially those in the accommodation sector such as B&Bs, Lodges, Guest Houses and Hotels. They indicated that their businesses grow because of the presence of tourists visiting the National Park. Only 20.4% disagree mainly because the businesses that they are referring to do not offer services to the National Park businesses such as tuck shops, supermarkets and chemists. 20% of the respondents remained neutral this may be because they were not involved in the businesses and they do not understand how a National Parks can impact on the existence of businesses.

Figure 4: The role played by the National Park on the existence of local businesses



As indicated in most literature, tourism has a multiplier effect and therefore its role in the local economies should be understood in that context. The general picture drawn from the findings (Figure 4) is that the existence of the national park in the area indeed promotes the active utilization of public transport and local accommodations.

THE IMPACT OF TOURISM ON THE HOUSEHOLD, PRIVATE BUSINESSES AND COMMUNITY BASED TOURISM PROJECTS IN THE COMMUNITIES AROUND THE PILANESBERG ANATIONAL PARK

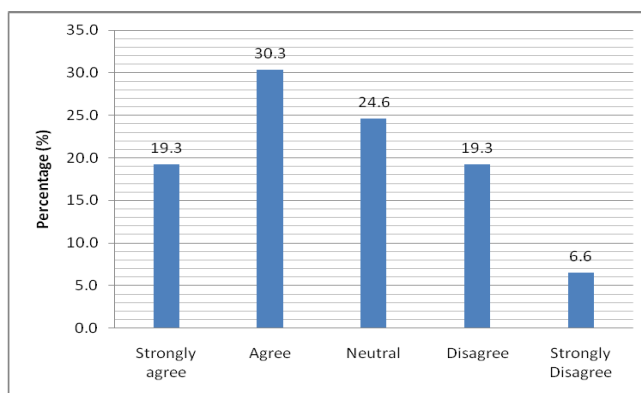
The purpose was to determine the extent to which the tourism activities of the Pilanesberg National Park impact on the local businesses and the surrounding communities, their lifestyle, the impact the National Park has on the cost of services in the local communities. To determine this the following factors were looked into, the role the national park plays in the improved quality of service provided by the local businesses, its role in the increasing

cost of living in and the crime rate in the area and the challenge of demand of local resources by the local people and the tourists.

Increasing local lively costs

Majority of the respondents which constitute 49.6% are of the opinion that the Pilanesberg National Park contributes to the increasing of cost of living in the area. It is a known fact that where there are developments, services increase and also the costs of such services increase as well due to the development. Few respondents who constitute 25.9% they are of a different opinion and 24.6% are neutral; these will be those who do not take notice of the changes taking place in their communities. Even though the national park is contributing in the increasing costs of services in the area it is also trying to address that problem by employing the local people so they can be able to afford those services.

Figure 5: The National Park contribution in the increasing of cost of living and local people cannot afford some of the services



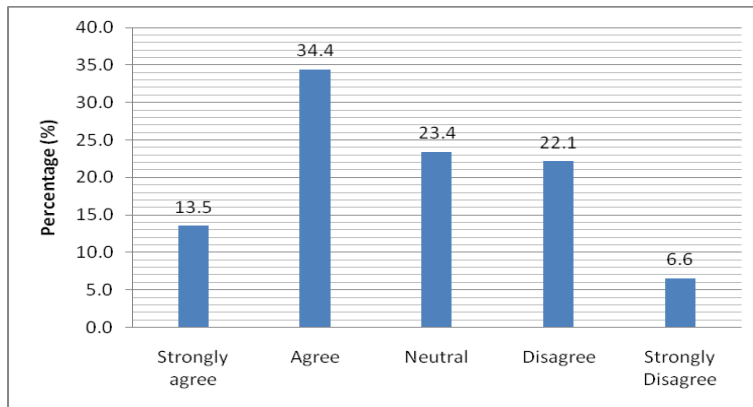
While tourism through national parks brings good local benefits, figure 5 indicate that it also brings some local negatives such as increased costs which makes the local residents not to afford the use of local resources. The accommodation costs may go up to suit the tourists and disadvantage the locals. Prices will become very competitive to suit foreign tourists.

Social effects on the locals

About 47.9% of the respondents are of the opinion that the local people changed their ways of doing things to accommodate the needs and demands of the tourists. This is sometimes inevitable especially where the local people have more contact with the tourists. Wall & Mathieson (2006:237) hold that young people of traditionally closed societies observe the freedom and material superiority of young westerners and respond by imitating their economic patterns and ways of spending. Wall & Mathieson (2006:237) continue to emphasise that the demonstration effect and state that tourism can modify local behaviour and divide the host population. 23.4% of the respondents remained neutral. 28.7% are of the opinion that the local people did not change their ways of doing things. They insist that the local people are continuing to do their things the way they have been doing them without any influence from the tourists.

Interaction with foreign tourists is believed to be having an effect on the lifestyle of the locals around the Pilanesberg National park. Such may be viewed as having both negatives and positive social impact on the locals. Practicing or letting oneself to be coined into a foreign practice and style of the tourists is often an optional activity.

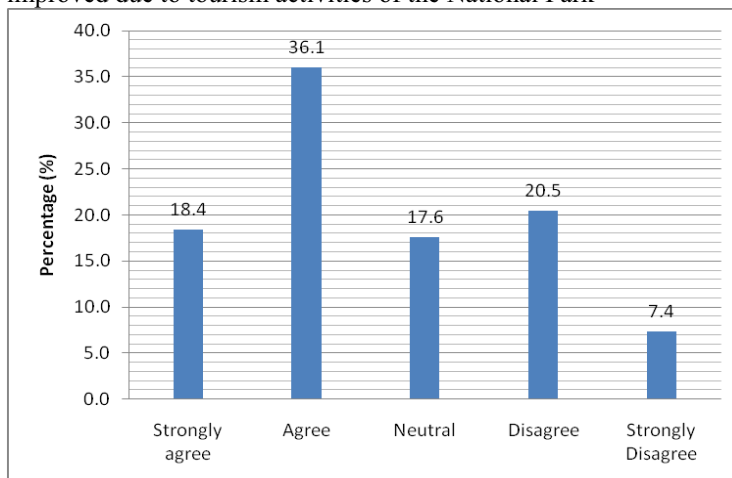
Figure 6: The local people's way of life in the community has changed to suit tourists demands/needs



Increased infrastructural development

The findings revealed that 54.5% of the respondents are of the opinion that public services have improved due to the activities of the National Park, whereas 27.9% of respondents are of the opinion that the National Park is not contributing in any way to the developments taking place in their communities while 17.6% are neutral. Any development that takes place in the National Park, for example, when there is a problem of roads leading to the National Park when they are reconstructed the community also benefit from the development because they will have proper roads in their areas.

Figure 7: The quality of public services like water, sewerage and public transport in the local communities has improved due to tourism activities of the National Park



While there are the negatives brought about by tourism through national parks, figure 7 indicate that a general opinion is that the existence of Pilanesberg National Park indeed helped in improving infrastructure development in the area. It is believed that there is improved water service and sewage provision and public transportation because of the activities of the national park in the area. That shows a clear correlation with figure 4 about the role of the Pilanesberg National Park on the local economies.

CONCLUSION

The paper investigated the role of National Parks in the socio-economic development of the local communities, reflecting on the experiences of the communities around the Pilanesberg National Park. In determining this role, the researcher used questionnaires to get perspective from the beneficiary communities which are Mogwase, Moruleng, Ledig and Mabele-a-pudi and interviews were conducted with the National Park management to also get their views. From the analysis of the research findings it was clear that National Parks play an important role

in improving the socio-economic development of local communities around them. It is also indicated in the research that the presence of National Parks also contribute to the cost of living for the local communities.

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USING PAEI–CODE AND ANALYSIS OF THE CORPORATE DNA TO DIAGNOSE EFFICIENCY OF THE INSTITUTION OF HIGHER EDUCATION

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ABSTRACT

Today in Russia the problem of Higher Education Institutions efficiency is most serious. To improve the education system performance, more and more reforms are being developed and implemented. However, it is rather difficult to define effectiveness of the reforms themselves and their influence due to the uncertainty and lack of definition of the evaluation methods criteria. In this situation it is necessary to apply to the foreign researchers' experience in diagnosing organization efficiency and its ability and readiness to change (19). The article describes an attempt to answer the questions the authors put: Is it possible, using the life-cycle analysis of an organization, to define the Institution of Higher Education efficiency and its readiness to change? To answer this question the Adizes approach and the corporate DNA analysis were used.

INTRODUCTION

The problem of innovation-based development of Russia's Institutions of Higher Education (IHE) and their readiness to change has often been brought up and discussed at all levels. First, it is due to a number of objective factors such as desynchronization of the objectives and the result, nonconformity of the number and quality of graduates to the government's requirements, and structural imperfection of the labour market. Secondly, rigidity of institutions executives and their intention to work in the old way prevent them from developing and achieving new objectives. Consequently, the society's innovation potential fails to increase and use the innovation factor as the major economic growth factor both in the short and long run. No doubt, the Russian conditions bring some specific character to the process of using the foreign experience. It is emphasized by Filonovitch and Kushelevitch (1996). Nevertheless, it is possible to use the abovementioned methods to assess efficiency of the Institution of Higher Education and its readiness to change.

PAEI – organization code

In the rapidly developing environment, worsened by the world economic crisis, organizations have to make a lot of effort to survive and stay in their niche (20). It is essential to define the position of the organization in the dynamic and long-range aspect based on the approach of the American researcher, Dr. Ichak Kalderon Adizes. His life-cycles theory, put forward in the late 80s, emphasizes flexibility and manageability of an organization. Newly-established companies are flexible, but poorly-controlled. In due course time the flexibility and manageability ratio changes: it is becoming better manageable while its flexibility decreases.

The Adizes approach is based on the definition of PAEI organization code. PAEI code involves four main functions which are vital to perform for any organization. PAEI code involves four main functions which are vital to perform for any organization (20). The functions are Producing Results, Administering, Entrepreneuring, and Integrating. Every function performs its own task in the process of solving corporate problems (Tab. 1). Here are the functions in detail.

“P” Function, “Provide needs” or “Producing results”, is responsible for producing results and provides efficiency. Using this function management satisfies needs of the market and customers while it achieves both greater efficiency and gains in performance.

“A” Function, “Administrator”, “Administrative” or “Administering” guarantees compliance with the bureaucratic rules, provides rationality and efficiency of an organization.

“E” Function, “Entrepreneur”, “Entrepreneuriat” or “Entrepreneuring”, makes the organization efficient in the long run. The management should encourage initiative and entrepreneurial spirit contributing to management of changes.

“I” Function, “Integrator” or “Integrating”, provides efficiency of an organization in the long run. It implies management based on the general values, interests and worldview that create spirit of cooperation in the company. It is integration, unity of all organizational parts to sustain its survivability (2,3,6,8,13,15,18,20).

Ideally an organization must have all the above mentioned functions. It does not always take place, however. If one of these functions is poorly-performed or not performed at all, efficiency of an organization goes down dramatically.

The combination of the Adizes code also characterizes the stages of the life-cycle of the organizational development. It is described by the fact that at different stages of the life-cycle the certain functions could be intensified or cancelled.

At different stages of the life cycle there are different organizational tasks (Fig.1) (20).

Tab. 1

Organizational tasks while performing different managerial functions (according to I. Adizes)

Entrance Functions	Transformation To transform the organization into...	Exit		Key question
		Characterized by...	At the time horizon	
“P”: produce results	Functional	Productivity	In the short run	What should be done?
“A”: administrate	Systematized	Efficiency	In the short run	How should it be done?
“E”: be entrepreneur	Ready for prevention measures	Productivity	In the long run	When/Why should it be done?
“I”: integrate	Entity	Efficiency	In the long run	Who should do it?

A. Dyatlov. (2009), V. Lunyov and S. Musobirova (2010) consider the ten *consistent stages* according to the Adizes Model (8, 13):

1. Courtship: The entrepreneur gathers a team of people sharing his ideas, accepting them and ready to put them into practice. “E” function is activated. If the other four functions are not used, however, the idea is not realized.

2. Infancy: The company has neither well-defined structure nor responsibility and delegation system. The ideas are put into practice. “A” function takes the primary place and great attention is paid to the performance and satisfaction of the ultimate customer’s needs.

3. Childhood (Go-go): The company increases its productivity while overcoming lack of liquidity as the main obstacle. The code of natural stage of development is **PaEi**. The people change their idea about the company’s future; they broaden their mind which reaches the endless horizon. The company still has neither well-defined structure nor subordination or job descriptions.

4. Adolescence: The company changes greatly at this stage. It is necessary to change the company structure and delegate responsibilities. Professional managers start altering the company structure, motivation and control

system. In a healthy organization “A” function stabilizes “E” function. New employees join the company which leads to an inevitable conflict of old and new employees. The code of adolescence is **pAEi**.

5. Prime: The company has a fairly well-defined structure, job descriptions, and a reward system. Success of the company’s activity is evaluated according to the customers’ satisfaction and achievement of the objectives set. An ability to predict the company’s future is also valued. The company achieves balance between manageability and flexibility. **PAEi** is the code of this stage.

6. Stabilization: This is the first stage of the company ageing, when its rapid development gradually decelerates and it stops entering new markets. The code is **PAeI**. The company does not strive to change, paying greater attention to interpersonal relations and trying to minimize risk.

7. Aristocracy: The company has significant finance, which is used to strengthen the existing control system. There are unpublicized rules, connected primarily with the dress code and having no grounding. The company tries to “buy” innovativeness, new products and ideas, taking over other companies at their early stage of development.

8. Early bureaucracy: The company is involved into a number of complex and sometimes unsolvable structural conflicts. The company tries to solve the problems making people redundant rather than change the structure. Internal problems prevent the company from satisfying the ultimate customer’s needs. The corporate code is **pAOi**.

9. Last bureaucracy: The company focuses on itself, and the internal problems. It tries to follow all the procedures, processes and instructions hoping that they might help to solve the problems. There is no tendency to increase efficiency or make changes. There is no orientation on the customer’s needs. A complicated control system, used in the company, requires following a set of rules and procedures rather than making effort to increase efficiency.

10. Death: The customer-oriented company dies as soon as its customers quit using the company services. If it does not happen due to the fact that the company is a monopolist or it is supported by the government, its death might be postponed. In this case the bureaucracy rate will be increasing till it reaches its peak and the company dies. The code of such company is **00A0**.

Organizational DNA

Organizational DNA is conformable with the Adizes theory in reference to a certain number of factors (functions by Adizes) that define efficiency of an organization. The authors of the Organizational DNA, Booz Allen Company specialists, developed the Organizational DNA Model, which is a combination of factors that make a company unique and define its specificity. They outline four major factors or “building blocks” making the foundation of the DNA: structure, decision-making process, motivators, information.

- **Decision Rights.** “We have to assemble ten executives in a room to make routine business decisions.” Decision rights determine how well organizations work, how quickly the right new products/services get to market, and how much the organization spends to get results.
- **Information.** “I don’t have the information I need to do my job.” Poor information is the organizational equivalent of junk food. Without accurate and available information, decision-makers cannot make quick, smart moves in the marketplace, and employees do not receive the recognition that their actions merit.
- **Motivators.** “We paid bonuses, but no one seems to behave any differently.” Motivators include more than money; they also encompass all of the objectives, incentives, and career opportunities that prompt people to care and achieve. These rewards, both financial and nonfinancial, can encourage individuals to align their goals with those of the organization.
- **Structure.** “Here’s our org chart, but let me tell you how it really works around here.” Structure is the most visible and obvious of the four Organizational DNA building blocks, and it is where most

organizational change programs start. Structure should not be a starting point, however; it should be the logical outcome of the choices made regarding the other three building blocks.

All the factors are interdependent and their combinations lead to establishing “successful” and “unsuccessful” types of organizations. There are some causes that result in failure of the “building block” activity. Some common recommendations could help to “heal” poorly functioning organizations and cope with the trivial drawbacks. In “healthy” companies preventive tools are used in case the situation changes unexpectedly for the worse. Booz Allen specialists also developed an original DNA Profiler method, which allows the company to build a specific organizational DNA which is a metaphor for the underlying factors that together define an organization’s “personality” and help explain its performance. The distillation of years of experience studying how companies organize and execute the Organizational DNA framework was developed by Booz & Company to give organizations an easy, accessible way to identify and remedy the roadblocks that impede results:

- *“Everyone agrees on a course of action, but nothing changes.”*
- *“There goes another opportunity, while we wait for a decision.”*
- *“It’s a great idea; it’ll never happen.”*
- *“I’m either micromanaged or left holding the bag.”*
- *“The businesses and functions just aren’t working together to get results.”*
- *“I don’t feel motivated to go the extra mile. What’s in it for me?”*
- *“Ready...aim...aim...aim”*
- *“We have the right strategy and a clear implementation plan, but we can’t seem to execute.”*

If any of these complaints sound like your organization, Organizational DNA can help.

The right people are the driving force behind a winning organization. The fundamental challenge is to align these building blocks so the individual’s self-interest coincides with the organization’s agenda. No building block stands alone; they are interdependent.

The Seven Organization Types

Based on our experience working with organizations and our research on how well or badly the four Organizational DNA building blocks are aligned in them, we have identified seven principal types of organizations—four unhealthy, and three healthy:

Passive-Aggressive

“Everyone agrees, but nothing changes.”

This is the seething, smiley-face organization.

Fits-and-Starts

“Let 1,000 flowers bloom.”

This organization lures intellect and initiative—smart people with an entrepreneurial bent, but who often do not pull in the same direction at the same time.

Outgrown

“The good old days meet a brave new world.”

This organization is literally bursting at the seams, having expanded beyond its original organizational model. The legacy of top-down direction and decision-making is too well entrenched.

Overmanaged

"We're from Corporate, and we're here to help."

Burdened with multiple layers of management, this organization is a case study in "analysis paralysis." Frequently bureaucratic and highly political, this organization frustrates self-starters and results-oriented individuals.

Just-in-Time

"Succeeding by the skin of our teeth..."

Although not always proactive in preparing for change, this type of organization has demonstrated an ability to "turn on a dime" when necessary, without losing sight of the big picture.

Military Precision

"Flying in formation..."

Everyone knows his or her role and implements it diligently in this organization, creating the overall effect of fluid and consistent execution. The Military Precision organization is hierarchical and operates under a highly controlled management model.

Resilient

"As good as it gets..."

This is the organization that inspires both awe and envy because everything seems to come so easily to it: profits, talent, respect. Resilient organizations are flexible, forward looking, and attracting team players. The Resilient organization is the healthiest of all the profiles.(23,11,12)

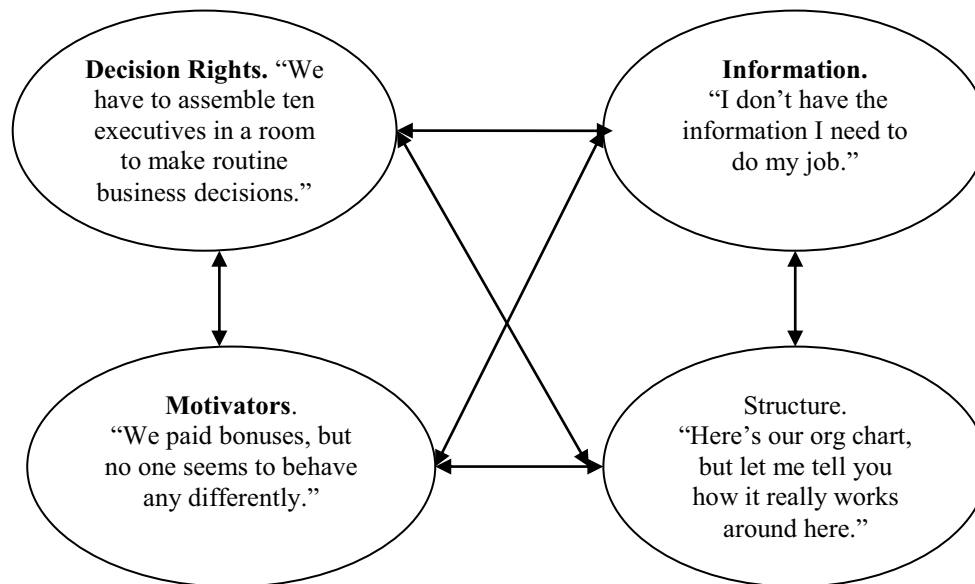


Fig. 1. **The Four Building Blocks** (according to Organizational DNA At-a-Glance)(23)

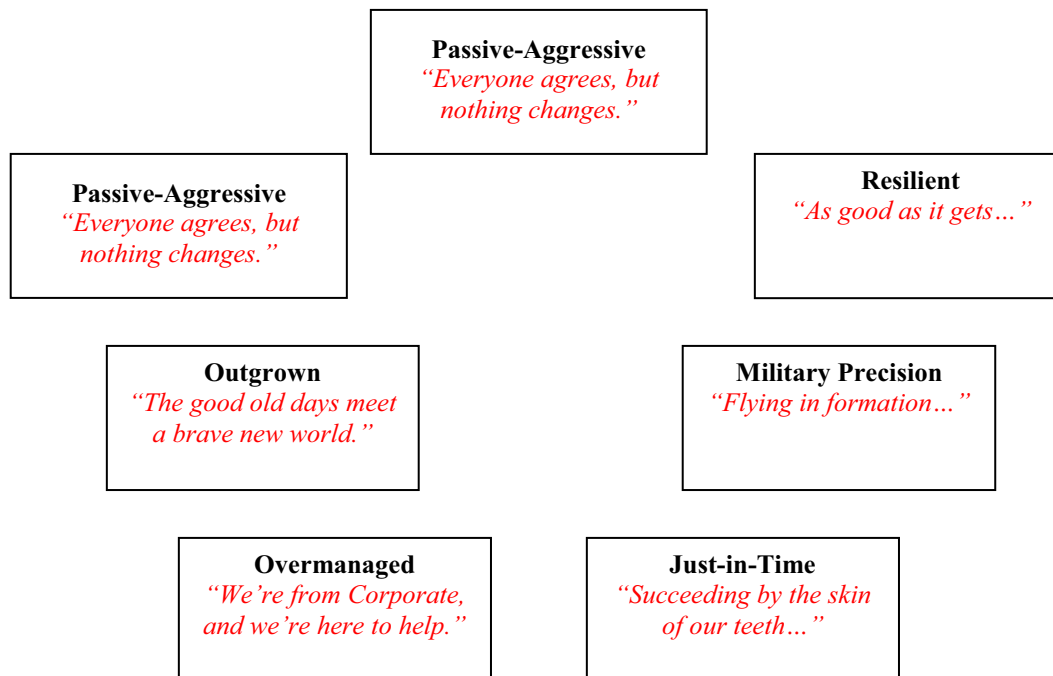


Fig. 2 The Seven Organization Types

LITERATURE REVIEW

In Russia the Adizes approach was investigated by Filonovitch and Kushelevitch (1996). They considered all the ten cycles of the organizational development and examined possibility to use this approach in Russia. They came to the conclusion that the Adizes approach is mainly applicable to new private Russian companies. However, the theory is impossible to apply to short-lived businesses, established to "skim the market". The problem of the Adizes code is also studied by A. Dyatlov (2009), who compares the Greyner, Adizes and Yemelyanov-Povarnitsyn Models. The problem of the company's survival in the rapidly changing economic environment is discussed in the article "Approaches to diagnostics of the company life-cycle" by A. Chanko (2008). A. Chanko (2009) also analyses organizational tasks while performing different managerial functions at the relevant development stages. V. Lunyov and S. Musobirova (2010) consider the ten *consistent stages* according to the Adizes Model and suggest using a number of the Adizes Code combinations at different stages of the life-cycle. G. Shirokova (2005) emphasizes that the Adizes approach could be used to analyze and diagnose problems as well as provide solutions which makes this model applicable for modern organizations. More than that, the model does not confirm inevitability of the company's death, but offers instruments to help the company recover at any development stage.

Vladis Burda (2008) underlines that Adizes' methodology provides an opportunity to control the company but in this case, however, quality of management might reduce. The cause of it could be connected with the fact that at this stage of development the company needs some other skills and approaches rather than those that helped to start the company from scratch. The Adizes approach changes our attitude to management and gives a clearer insight into the way the organization should be developed.

Averyanov (2008) establishes relations of the Adizes theory with the corporate culture. He focuses on the high rate reference of the corporate structure with long-run life cycles of the company. Ichak Adizes, considering "life cycles of giants" (2008), describes the unique character of an organization, distinguishing common principles and typical problems faced by most companies.

The Adizes theory produces very good results allowing the management to forecast development and emergency conditions, thus, helping to best prepare for them. Besides, this model describes in detail all the procedures in the company, while emphasizing consistent phenomena and pathologies that help a manager to concentrate on solving day-to-day problems rather than waste time and effort coping with temporary difficulties.

PRACTICAL IMPLICATIONS AND CONCLUSIONS

PAEI code of the Institution of Higher Education

Diagnosing the performance efficiency of an institution, it is essential to define whether it is efficient and optimized at the moment, and whether it will be efficient and optimized in future. This information could also be received on basis of the PAEI code analysis. What functions are responsible for the aforementioned matters? Information about the degree of the organizational performance efficiency is provided by the “P” function analysis which shows whether the service produced by the company is on demand and who it is beneficial for. The optimized organization is presently defined by the “A” function analysis. The core of optimization is defined by systematization of the management process, an optimized use of resource and the mechanism of success.

The “E” function characterizes the possibility of the organizational efficient performance in future. It is essential to consider strategic and tactical plans as well as scenarios of the organizational development to take into account the risks of achieving the objectives set and to respond quickly to changes of internal and external factors.

Finally, the “I” function explains the future possibility of the organizational optimization. It shows how well the organizational structure is developed, how integral the organizational self-awareness is, and how good the teamwork is. In our case it is necessary to define the data to be considered when diagnosing efficiency.

Using the “P” function it is important to determine the level of the market and customer satisfaction according to the social demands. This figure can be characterized by the number of graduates working in the specialty; the number of graduates registered in the employment centre; the number of graduates improving their qualification via Master’s degree program, postgraduate courses; the number of graduates holding high positions in their field.

The “A” function can be demonstrated through the confirmed organizational structure, job descriptions, examination period schedules, statements about departments and deans’ offices, certification, event procedures and standard contracts.

The “E” function is characterized by the development strategy which takes into account dynamic changes of the internal and external environment and accepts corrections if necessary.

The “I” function is shown through the organizational structure diagnostics that shows its readiness to change and an ability to survive in the long run.

The subject of our research is the state institution training specialists in economics, finance, management and municipal administration. The institution has internal and extra-mural (evening) courses. The institution has been operating for 15 years. The four function Adizes analysis shows that **PAEI** code has the **pAEi** structure. Based on the Adizes theory we arrive at the conclusion that this code corresponds to the growth stage and “youth” phase. What characterizes the institution in this position? The phase involves the three major tasks: management improvement, delegating and shifting of objectives.

In the institution there are a great number of new employees resulting in conflicts connected with workload distribution, using teaching methods and corporate relations. Besides there is certain non-coincidence between the corporate objectives and those of the employees. Despite the fact that all the employees are well aware of the institution’s mission, strategy and goals, some workers do not clearly see their role in the organization which leads to uncertainty in their further individual development. Based on interpretation of the functions it is possible to say that at the moment the institution has a well-developed administrative function which makes the organization efficient. The developed “E” function demonstrates the ability of the institution to manage changes which makes it efficient in the long run.

Corporate DNA of the Institution

Discussing the issue of the corporate characteristics, which could be compared with the DNA of a living organism, gives a better insight to the four basic principles that define and sustain the unique character of an organization (Tab.1). However, any positive change in the DNA structure could lead to an increase in its efficiency and change its qualification.

We carried out a survey in a number of institutions using the ORG DNA Profiler with 20 respondents involved (4 top managers, 6 middle managers, 5 teachers and 5 office employees). The results show a great difference in the way top managers and subordinates evaluate the situation. According to the top managers, the organization is rather “flexible” in its ability to respond to changes. It acts in line with the consistent business strategy, predicts possible changes and exploits them. But the vast majority of the respondents identify the institution in question as “Just-in-time organization”. Comparing the results of the **PAEI** code analysis and the **DNA of the Institution** it can be mentioned that the characteristic given by the subordinates is more accurate. Although the institution is rather efficient at the moment and has potential to respond to changes, it does not perform it regularly and makes minor mistakes. Having studied the data received, the management of the institution can improve the existing “P” and “I” functions to strengthen their position in the market.

Thus, in conclusion, the PAEI code gives an opportunity to find out the potential of any organization, including an Institution of Higher Education. Taking into consideration the life-cycle, it is possible to work out the development strategy, to define the possibility to participate in innovation programs, or, alternatively, stop this activity and concentrate on effort to achieve stability. A combination of the corporate DNA analysis and the **PAEI** code allows formulating a more objective picture characterizing interdependence of functions and factors of an organization at its development stage and work out the ways to change or maintain the performance achieved.

The further research is going to be aimed at analyzing possibilities to use MFAM (Management Functional Assessment Model) to define efficiency of the institution performance. The Model was developed by professors of Sheffield Halam (UK) and “IVA Consulting Group” (Ivanovo, Russia). Using the three models will give an opportunity to receive more objective and relevant data. More than that, the research is supposed to carry out in the regional institutions, that will help to make a clearer and more objective picture of the institutions’ readiness to change, and consequently, to survive.

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THERE ARE NO BAD STATISTICS STUDENTS, ONLY BAD TEACHING METHODS

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ABSTRACT

The statistics paradox in an MBA program is stressful, frustrating, and a pain. Statistics is considered as one of the most important subjects in the program, as it 'supposedly' helps equip students for the research project and dissertation. All the same, the subject is difficult. MBA statistics is a nightmare for both instructors and students, alike. This paper reports the experience of using a project-centered approach in the teaching of statistics at Tshwane University of Technology Business School.

INTRODUCTION

In the recent past, the use of projects in the teaching of introductory statistics courses is increasingly becoming popular (Weltman & Whiteside, 2010; Zieffler, Garfield, Alt, Dupuis, Holleque & Chang, 2008). Instructors in business schools are using projects to help their students not only understand concepts better (Ledolter, 1995), and also in illustrating the relevance of statistics in management problem-solving (DeVaney, 2010). This paper reports the experience of the author in using project-based instruction at the TUT Business School.

BACKGROUND

Prior to the adoption of project-based instruction, the author relied on 'traditional methods' of instruction (Weltman & Whiteside, 2010) – using PowerPoint slides and chalk (Sabry & AlShawi, 2008). This technique helped only a handful of, above-average, students and was not especially effective to the remaining students (Weltman & Whiteside, 2010) a majority of whom were taking their first statistics course. In South African high schools, mathematics is an elective in which students can opt for Maths Literacy instead. In most MBA programs, however, statistics is compulsory. Thus, statistics presents an insurmountable challenge for many would-be MBA graduates and their instructors (Onwuegbuzie, 2004). Naturally, MBA students love to hate statistics (Zieffler *et al.*, 2008).

At the TUT Business School, statistics is a compulsory subject taught in the first trimester of the first year. Statistics students hardly attend class voluntarily, and can best be described as what Wilson (1995) calls a "hostile audience." To exacerbate an already dire situation, the Business School examinations policy presents yet another challenge for students: Foremost, there is no provision for supplementary exams in the MBA program. The only recourse for students is to repeat the course in subsequent semesters. Furthermore, for each module, a student may only repeat the subject once. Failure of which, the student will subsequently be deregistered from the program.

Against this backdrop, the author realized his shortcomings; at best, scribbling weird formulae, and at worst, talking to himself amidst miserable and distressed students. Considering an old adage: "there are no bad students, only bad teaching methods," the revisited his teaching techniques.

The rest of the paper is structured as follows: in the next section, some common causes of students' negative perceptions on statistics are presented. Following on, some strategies and teaching methods applied to address

students' negative attitude towards statistics are discussed. Thereafter, implications and concluding remarks are presented.

STUDENTS' NEGATIVE PERCEPTION OF STATISTICS

First, consider the following parable:

Effective data analysis requires the effective use of statistics. Unfortunately, statistics is boring. It is boring to learn, it is boring to teach, and it is usually boring people who actually like statistics. Indeed, the comment that a statistician is 'a person who didn't have enough charisma to be a cost accountant,' says it all! Statistics is also hard. It is hard to learn, it is hard to teach (properly), and it is even harder to remember what little you may have learned. In short, statistics is rarely fun (Diamantopoulos & Schlegelmilch, 2000).

The above excerpt underscores difficulties of teaching and learning statistics, which hereinafter is called statistics paradox. Statistics is laborious to teach. Most instructors short-circuit its teaching with over-emphasis on calculations. In the process its true meaning, relevance, and significance as a decision support tool is lost (Ledolter, 1995; Wilson, 1995). Students fail to understand why they study statistics. Consequently students develop all sorts of phobias towards the subject (Onwuegbuzie, 2004). This author found the following factors as influencing students' negative attitude towards statistics.

Lectures Are Dull And Boring

Traditionally, statistics lectures are dull and boring. The lecturer 'teaches' from one end of the class and the 'students learn' from the other end (Weltman & Whiteside, 2010). But in other modules, through interactive learning, students interact among themselves and with instructors through role plays, discussions, and presentations (Hall, Waitz, Brodeur, Soderholm, & Nasr, 2002; Sabry & AlShawi, 2008).

Lecturer Shortcomings

These can be divided into three sub-headings: poor coordination of MBA lecturers, failure to engage students, and non-business majors teaching in business schools.

Poor coordination of MBA lecturers

Lecturers fail to consider that the MBA is an integrated management qualification composed of multiple but interrelated modules. Lecturers hardly communicate nor collaborate with each other on content and themes.

Teaching methods inertia

Not only is it boring, it is cumbersome to overhaul teaching techniques – it is time consuming, laborious, and frustrating (Hall *et al.*, 2002). Some instructors resort to using the same slides, same examples, same textbooks, and same approaches semester after semester, and year after year. In extreme cases some lecturers resort to notes they prepared when they were students.

This practice presents numerous problems in as far as academic scholarship is concerned. First, this method is antithesis of the very essence of academic scholarship. While students are encouraged to consult the latest literature for assignments, the very lecturers continue to use 'outdated' literature. Secondly, students' creativity in designing appropriate research programs becomes limited, as witnessed in the poor quality of research projects and dissertations. Students subsequently collect large volumes of data, perform all imaginable analyses on SPSS, and submit the same as MBA dissertations.

Non-business majors and non-researchers teaching business statistics

Business Statistics is often confused for statistics. It is regarded to be a “technical” subject that is better taught by statisticians, more like a Marketer teaching marketing or an Accountant teaching Accounting.

Business Statistics, however, is different from statistics. It is a management decision support system that utilizes statistics to analyze data (Diamantopoulos & Schlegelmilch, 2000). Thus, statisticians may not fully be *au fait* with the context in which business statistics is used in real-life problem solving and subsequently, the best practices in management teaching and training. After all, their ontological orientation is skewed towards positivism, which is a fading paradigm in business research (Tashakkori & Teddlie, 2003; Skalen, 2010). Rose, Machak, and Spivey (1988) support this latter view. In a survey of American MBA schools, the authors found that students’ performance in classes taught by non-statisticians performed better than those taught by statisticians, even those of taught by reputable statisticians of high caliber.

SOME APPROACHES TO MITIGATING STUDENTS’ NEGATIVE ATTITUDES

To address the above problems, this author resorted to the following:

Consultation With Other Lecturers And Program Managers

First, the author consulted with other instructors in our MBA program. Only two lecturers and the Head of Department were available; all the other lecturers are employed on part-time basis and are difficult to access. In the consultative meetings, the following questions were asked:

Research Methods Lecturer

1. What would you want students to learn in statistics (a prerequisite of Research Methods) before attending the Research Methods module?
2. What do you think is the best approach to teach this?

Marketing Lecturer

1. What do you expect a student who has just completed a course in Business Statistics should know?

HoD, Business School

1. When you included the Business Statistics module, what exactly did you want students to learn/ know?
2. What advice would you give me to be effective in achieving these objectives?
3. Provided I manage to achieve my objectives, how creative can I be in teaching this module?

Of these, the Research Methods lecturer provided an interesting response:

Students ‘abuse’ statistics, “... they think that firing a big statistical gun and commanding SPSS to return all and every measure under the sun is research. They lack knowledge and focus. Even on qualitative research, they still want to use stats. ”

Research

MBA is a postgraduate qualification and for that reason its focus is foremost research-related (Tshwane University of Technology, 2008). Research is both a process and product of postgraduate teaching/ learning, in which both students and lectures are expected to produce publishable research in the form of dissertations and research articles, respectively.

Being a postgraduate teaching problem, research was a viable repository for solutions. *The Journal of Statistics Education* (Vol. 18, March 2010) was a good starting point. The journal provides a comprehensive account of the evolution of the teaching and learning of statistics from as early as the 1980s. Therein numerous tried and tested approaches were suggested – the use of projects and active learning (DeVaney, 2010; Ledolter, 1995;

Weltman and Whiteside, 2010; Zieffler *et al.*, 2008). As an extra to the pursuit for improving instruction at postgraduate level, the author has, in addition, produced this paper – thus confirming that research is both a process and product of postgraduate education (Tshwane University of Technology, 2008).

Teaching Statistical Processes, Not The Content

Following advice from colleagues and the extant literature, the author's teaching methods shifted from teaching content – formulae and calculations - focus shifted to process. A practical and easy way to do so was through the use of projects.

The approach was simple. It involved altering the 12-week syllabus to include series projects: one major project to be attempted in small groups and a series of small individual projects addressing specific learning outcomes within a given week.

Small Projects

These projects prompt students to apply statistics in simple everyday tasks. For example, in illustrating descriptive statistics, students' heights, age, gender, shoe size, and marital status were collected. Immediately thereafter, summary measures were computed. Instead of referring to data sets in the textbook, we had our own data set that we understood and that we could relate to. Furthermore, the group approach became very important in explaining difficult concepts. For instance, students were asked to arrange themselves from the shortest to the tallest member. When we arranged height into an array using MS Excel, it was fascinating for the students to note that the two approaches yielded almost similar results.

Group Projects

Group projects are more involving and generally span an entire semester. Students are divided into small groups of about 4 – 6 students. Each group is assigned a particular problem scenario in which statistics was to assist in discovering the solution. One such scenario was declining sales experienced at a local group of hotels in Pretoria. Students were encouraged to conduct a brief literature review from which a research problem and questions were formulated. A data collection instrument was, subsequently designed (or adapted from the literature), which was used to collect primary data. Collected data was analyzed using MS Excel. Lastly, students reported their findings in the form of a report that was submitted at the end of the semester. Each group was also given the opportunity to present their findings by means of a presentation.

Advantages of Small Projects

Ledolter (1995) explains that traditional teaching approaches are in most cases “incomplete” in that they do not expose students to real world problem formulation (Libman, 2010), and the difficulties of acquiring relevant data. Small projects especially those that use simple and available resources assists students in thinking of statistics holistically – from data collection to analysis and interpretation. Some of the advantages of these projects are (Sabry & AlShawi, 2008):

- Increased comprehension
- Learning while playing
- Easy and inexpensive to conduct
- Helps bonding and communication
- Relaxes the atmosphere

Disadvantages of Small Projects

Similarly, there are some drawbacks associated with this type of project. These are:

- May face resistance from students, especially the elderly students
- May cause disturbances for other classes (moving chairs and all the activities going on)
- Requires considerable planning on the lecturer's part

DISCUSSION & IMPLICATIONS

This article presented how projects were used in an introductory Business Statistics course at the MBA level. Several influencers of students' negative perceptions were discussed as well as some strategies used by the author to mitigate the latter. As a result, several lessons have been learnt from the use of integrative and active teaching methods. Overall, the research confirms findings reported in the extant literature on the teaching of business statistics.

However, it should be noted that the purpose of this paper is not prescriptive but descriptive. The use of projects in business statistics may not necessarily be the 'magic bullet' in the teaching of the subject. If used appropriately, projects can be an effective tool for below-average students, especially those with limited exposure to mathematics and statistics. Its utility is that it helps transform business statistics into a student-friendly subject – the rigidity of traditional lectures is replaced by a fun and relaxed learning environment in which students take full control of their learning as well as determining the pace thereof. In contrast, for above-average students, the cost-benefit analysis for projects-based instruction method may not warrant the use of projects. The additional efforts may fail to produce improved scores. It would therefore be interesting for future research to consider empirical research on a larger sample and assess the fit of projects on students with limited mathematics experience.

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MDGS AND GENDER EQUITY: SOME IMPLICATIONS FOR UNIVERSITIES OF TECHNOLOGY

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ABSTRACT

Universities have become complex organisations, and in the context of a developing nation like South Africa, universities are transmuting into agents and engines of development. Despite universities' of technology (UoTs) potential in poverty reduction as well as employment creation, especially for women, their contribution towards the latter has been limited. This paper argues for UoTs to shift focus towards education-specific millennium development goals – MDG 2 and MDG 3. By concentrating efforts on these MDGs, universities in developing countries not only would be able to address the problem of gender equity, but will become partners of socio-economic developments within their communities. The study involved in-depth interviews with senior personnel from two South African UoTs, students, and education officials. Findings suggest that UoTs have great potential in stimulating the South African education sector as well as gender equity. A conceptual model was subsequently developed.

INTRODUCTION

Modern universities are no longer just another tier in the education system. Colleges and universities in the developing world are fast transmuting into agents and engines for development (Ismail, 2008), and not merely centres for higher education (Du Pre, 2009). Overall, they have become vehicles for poverty reduction, employment creation, and socio-economic development (Turmaine, 2009). However, South African universities' impact on gender-specific development at the local level is yet to gather momentum. As a measure of their influence within their communities, this paper proposes the Millennium Development Goals (MDGs). The authors specifically argue that universities of technology (UoTs) have the greatest capacity to stimulate community-driven development including gender parity. Moreover it is argued that UoTs' relevance is contingent on their support for the attainment of MDGs. The first part of the paper considers the concept of UoTs within the South African context. The second discusses implications of MDGs in gender and development. Finally, a conceptual framework illustrating the relationship between UoTs and MDGs is presented followed by discussions and concluding remarks.

THE SOUTH AFRICAN HIGHER EDUCATION SECTOR

The South African higher sector consists of 23 public universities (11 traditional universities, 6 comprehensive universities, and 6 universities of technology) and 94 privately registered colleges and institutes. Combined enrolment exceeds three-quarter of a million students (Council on Higher Education, 2009, 2009b). In the recent past, the sector has undergone rapid transformation (Du Pre, 2009). Of these the most notable is the creation of Universities of Technology (UoTs) (Council on Higher Education, 2009b; Higher Education South Africa, 2007).

Universities of Technology (UoTs)

UoTs were developed from the mergers of various *Technikons* (or polytechnic colleges) and universities (Du Pre, 2009). In total there are 6 UoTs in South Africa, namely the Cape Peninsula University of Technology, Central University of Technology, Durban University of Technology, Tshwane University of Technology, and Vaal University of Technology (Council on Higher Education, 2009b).

Despite their fewer numbers, statistics suggest UoTs as most active in addressing equality in the sector (see Table 1). According to the Council on Higher Education (2009b), UoTs come closest in achieving the South African population racial profile with 77% African, 11% white, 8% coloured and 4% Indian students.

Table 1: Enrolment by institution type

	African (black)	Coloured	Indian	White	Total
UoT	107, 581	11, 004	5, 065	15, 188	138, 912
Comprehensive	233, 214	18, 569	25, 152	73, 314	350, 624
Universities	135, 973	19, 496	22, 379	91, 961	271, 554
Total	476, 768 (63%)	49, 069 (6%)	52, 596 (7%)	180, 463 (24%)	758, 896

Source: (Council on Higher Education, 2009b)

Turning from racial equity to gender equity, UoTs also contributed significantly to increased participation of women in higher education (Turmaine, 2009.; Zeigler, 2001). In this regard, an initiative championed by UoTs was a shift in students' admissions policy, particularly the 'Recognition of Prior Learning' (RPL). Through RPL, universities consider non-university training and work experience as admission requirements in lieu of academic qualifications (South African Qualifications Authority, 2003; Zeigler, 2001). Consequently, RPL helped improve UoTs enrolment, especially, among women (Du Pre, 2009). In a society where women have limited formal education, RPL becomes a strong driving force for women participation in 'higher' education. One such example is the Tshwane University of Technology Business School; it admits candidates with a National Diploma (or Matric + 3 years' educational qualification) and minimum 5 years managerial experience into their MBA programme (Tshwane University of Technology, 2007). Such a move has increased women's enrolment at TUT Business School.

Overall, UoTs are skill-oriented and readily recognise the value of work experience. Thus from a developing nation's context UoTs are better equipped at dealing with gender parity and subsequently, poverty alleviation at local levels. Of all other institutions, they are most flexible, most receptive of new technologies and innovations, and most in touch with society. It is against this background that this paper argues that UoTs' relevance within their communities will be secured by aligning themselves to education related MDGs (Turmaine, 2009.). In view of that, the next section discusses the MDGs within the context of higher education in developing nations.

MILLENNIUM DEVELOPMENT GOALS

In 2000, the United Nations adopted the Millennium Development Goals as a framework for addressing world poverty as well as fostering peace and prosperity (United Nations, 2008). MDGs outline specific goals and objectives intended to be achieved by 2015 (United Nations, 2000). MDGs span across numerous themes, but this article focuses only on education related goals – MDG No. 2 and MDG No. 3 (Turmaine, 2009):

MDG 2: *“Achieve universal primary education – ensure that children everywhere will be able to complete a full course of primary schooling.”*

MDG 3: *“Promote gender equality and empower women” – and the subtitle: “Eliminate gender disparity in all levels of education.”*

MDG 2 - Achieve Universal Primary “Education For All” And Higher Education

This goal encourages ‘all’ children to complete, as a minimum, primary education. The implication for the education sector, particularly at the primary level, is to provide an environment that not only supports learners to enrol and but to motivate them to complete their studies. The rationale of MDG 2 is that primary education is instrumental in various facets of socio-economic development (Turmaine, 2009). These as:

- (i) Primary education is a platform for further education.
- (ii) Primary education addresses literacy numeracy skills (Harrison-Walker, 1995).
- (iii) Discipline as well as good citizenship are influenced and subsequently formed at primary school.

But, what does all this have to do with universities? Everything. ‘Higher education’ is concerned with MDG No. 2 in numerous ways. Consider the following:

- 1. The education sector despite superficial differences (e.g., primary, secondary, or tertiary) is still one sector with one agenda – educating a country’s population.
- 2. Primary and secondary schools’ teacher training is the responsibility of UoTs.
- 3. University research has direct consequence on lower level education (e.g., Research conducted in the Faculties of Education).

The Education Sector is a holistic system that incorporates primary, secondary, and tertiary education

Many developing nations consider primary, secondary, and tertiary education as different sectors. But, these differences are superficial. There is evidence supporting a holistic system as universities are increasingly conducting adult literacy programmes (Gust, 2006), which were ‘traditionally the domain’ of primary or secondary education (Council on Higher Education, 2009b). Secondly, because the ultimate objective of education is to improve the welfare of the population, the different sectors are complementary and not necessarily disjointed. If one sector fails, the other sectors will also fail. Consequently, the quality of higher education is dependent on the quality of education at lower levels, the Council on Higher Education (2009b) explains:

...because of the poor quality of school-leavers coming into the system, universities are burdened by having to provide remedial teaching to address gaps in school level education and to develop basic literacy and numeracy skills.

While it may be necessary to demarcate the administration of the various sectors of education, the purpose and objectives of education still remain the same. In this sense, it ought to be considered holistically.

Teacher training is the responsibility of UoTs

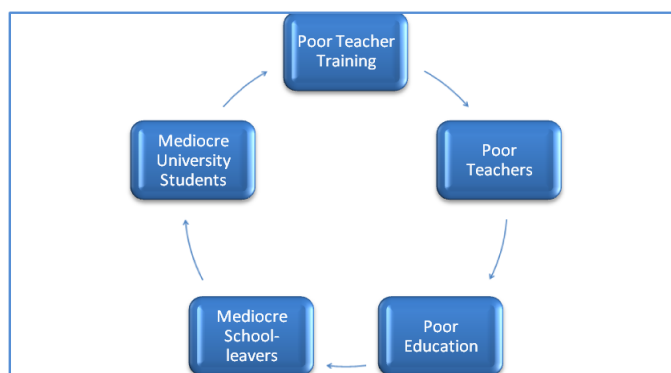
School teacher training is the responsibility of higher education. In South Africa, the former *Technikons* or UoTs are charged with this duty. While on the one hand, the quality of school leavers has direct bearing on education at universities, the opposite is also true. In contrast, the nature of teaching at institutions of higher learning, for instances in teacher training programmes determines the quality of teachers and indirectly, their teaching at primary as well as secondary education. If teachers receive sub-standard training, surely their performance will most like be mediocre. This eventually leads to a vicious cycle of education mediocrity (Fig. 1). In order to break this vicious cycle, universities need to develop ingenious strategies. The implication, thereof is redirecting university research attention to addressing the most basic problem of primary “education for all.”

University research has direct consequence on lower level education

University research has direct and indirect consequences on all educational levels. Prince, Felder, & Brent (2007) found that research supports teaching and the teaching practice. Numerous education related theories applied in education today, such as motivation, psychology, student psychology, and classroom management

have been developed through university research. Likewise, research can also be directed at improving primary school teaching.

Fig. 1: The Vicious cycle of education mediocrity



MDG 3 – Promoting Gender Equality And Empowering Women: Eliminating Gender Disparity In All Levels Of Education

In laymen’s terms MDG 3 can be summarised by two common English axioms: (1) Educate a man and you educate an individual... Educate a woman and you educate a nation and (2) deny a man education and you deny an individual... deny a woman education and you deny a nation.’ Due to discriminatory policies of yesteryear the black South African girl-child continues to suffer twofold; first, as a woman and second as a person of colour. Thus, the spirit of MDG No. 3, “Promote gender equality and empower women,” seeks to redress this situation.

Evidence across the disciplines suggests strong correlation in socio-economic development and women upliftment programmes. For instance, microfinance programmes targeting women (e.g. Grameen in Bangladesh and SEF in South Africa) have proved to be more successful. Thus, if such initiatives were supplemented by a robust educational system, the potential for improvement would increase exponentially.

The traditional university system, however, has not fully recognised this potential. If a critical number of women acquire skills and education, they will invariably increase their participation in economic activities and wage employment. Subsequently, these women will in turn encourage their children to go to school; they will become more knowledgeable; they would increase their participation in self-development activities. Essentially, education stimulates virtuous spirals (Mayoux, 1999). Against this backdrop, therefore, universities may contribute to this MDG by (1) acknowledging the challenges faced by the girl-child, (2) designing programmes that are sensitive and appropriate to the specific needs of women, and (3) once educated, women increase their chances of securing employment in institutions of higher learning were they may spearhead programmes that promote gender equity.

Some Advances In Higher Education With Respect To Gender Parity And Women Development

Turmaine (2009) reports of 3 case studies in which higher education has made strides in gender parity and women Empowerment, with much success. These are Costa Rica, Zimbabwe, and Kenya/ South Africa. While the latter programmes were not initially designed to address MDGs, they very well may provide useful direction for incorporating MDGs. The following sections outline some of these initiatives.

Costa Rica

The Centre for Research in Women’s Studies at the Universidad de Costa Rica developed a model that specifically addresses some of the challenges faced by women in Costa Rica. The university corroborated with various international universities in research aimed at designing curricula appropriate for women, whose initiatives included:

- recruiting more women in the university

- encouraging women researchers to participate in gender-based research
- developing inclusive and non-sexist curricula
- designing postgraduate programmes on gender and intra-family violence

The model has since served as a pilot programme for the Latin America region.

Zimbabwe

The Women's University of Africa was founded in 2002; the university enrolls mostly women in both undergraduate and postgraduate programmes ranging from agriculture to reproductive health studies. Its employee recruitment policies favour women, and to date a number of key positions including the Vice Chancellor and Deans of Faculties are held by women. Because women are significantly represented in the student and staff populations, the university has contributed immensely to the welfare of the girl-child. Moreover, it has transformed the Zimbabwe's higher education landscape by stimulating gender parity through increasing access to higher education. With increased access to education, women will in turn be able to fulfil leadership, social, political, and economic roles (Mayoux, 1999).

South Africa & Kenya

The South African and Kenyan case studies follow-up to the Gender, Education and Development project, whose aims were to investigate effective and efficient education-related poverty alleviation strategies. The two countries were selected as case studies. The scope of the project included consultations with stakeholders (government, primary schools, NGOs, churches, and other public entities).

While examples are numerous, these three appear to be the most successful in the context MDGs. Now having discussed UoTs and MDGs separately, the discussion turns to how UoTs can better participate in MDGs.

THE MODEL FOR UoTs' PARTICIPATION IN MDGs

Evidence presented hitherto suggests that there is room for MDGs in higher education. As already indicated, MDGs present an interesting opportunity for UoTs (Du Pre, 2009; Turmaine, 2009). By aligning themselves to the specific education-related objectives, UoTs could develop a niche that ultimately may define their relevance both locally and globally, today and even beyond 2015. In this paper we have developed a model that potentially may define UoTs' participation in the MDGs, as depicted in Fig. 1 below. The elements of the model directly stem from the constructs of UoTs.

Revisiting the concept of a university of technology, three fundamental and unique aspects emerge. These are (a) industry, (b) community engagement, and (c) technology (Du Pre, 2009; Higher Education South Africa, 2007). A careful balance of these three results in an interesting convergence point, which Shambare and Nekati (2009) call an ecosystem (Fig. 1). The concept of ecosystems is adapted from biological sciences, in which an ecosystem denotes a "biotic community within a specified physical environment to stimulate both synergies and symbiotic relations. These relations ensure the flow of energy and life (Pickett & Cadenasso, 2002). Transposing the latter to a university setting involves combining learners and experts from diverse disciplines in order to stimulate learning and the flow of knowledge, which includes forming partnerships with industry and the community (Shambare & Nekati, 2009).

In the context of MDGs, UoTs leverage networks among industry, technology transfer, and lower level education (Fig. 1). By including women in networks, UoTs may prove instrumental in women empowerment as well as gender parity. Consequently, the following implications apply to various departments of universities:

Faculties of education and teacher training

If teachers are not well and adequately trained and if the training programmes are not adequately designed, lower level education suffers, which ultimately affects the entire sector. Therefore, students and faculty should be encouraged to direct research into the specific needs of their communities. Overall, cooperation between universities and lower level schools must be enhanced.

Faculties of Engineering

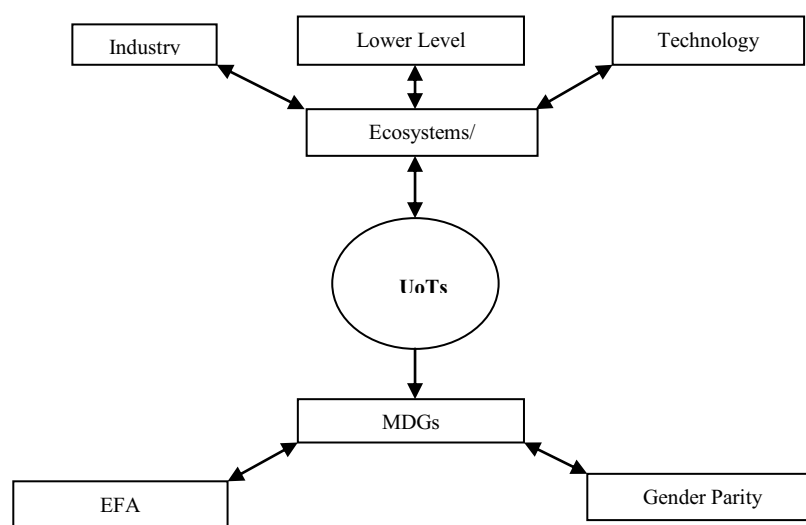
Engineering schools can be solicited in the development of ICT-based products that fit the needs of basic school children, help teachers, and for the improvement of the learning environment.

Faculties of Social Sciences

These faculties could also be engaged in research in the practice of pedagogic, which might also assist adult literacy programmes.

The above may assist the attainment of the objectives of universal primary education and gender equality. With increased UoTs' participation in the implementation of education-related MDGs, gender parity as well as women empowerment can be stimulated. With increased research, discussion in the area will be stimulated by providing a forum for sharing best practices in education. Above all, because of their adaptability, UoTs present themselves as collaborative partners for attaining education-related MDGs, which will ultimately stimulate poverty alleviation and socio-economic development.

Fig. 1 The UoT Model



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COMPARING THE COMPETITIVENESS BETWEEN BRAZILIAN AND EUROPEAN FOOTBALL (SOCCER) (G-5) –INTERPRETATIONS AND SUGGESTIONS

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ABSTRACT

World sport has been seen as a growing industry, generating revenues of roughly US\$ 1 trillion a year. Playing a major role in this industry, football (soccer) is accountable for an annual turnover of approximately US\$ 250 billion – Brazil's share being approximately 1% of that amount. The growing marketing and globalization of football has brought up new topics such as: the risks associated with competitiveness; the need for professional management; creating corporate teams; sports strategies and marketing; accounting; accountability..

This paper aims at: i) understanding the risks associated with the competitiveness of football leagues; ii) comparing the competitive balance in the five largest European football markets (Germany, Spain, France, England and Italy) in relation with Brazilian football and; iii) interpreting these results in view of the literature concerning sports administration.

INTRODUCTION

The concern of this paper is turned to the balance among the teams competing for the Brazilian national football championship. In that context, the more balanced the teams are, the greater the uncertainty about the results of a match (and consequently of the championship as a whole) will be. Lack of balance means not to maximize the amount of fans going to the stadiums or watching the matches on TV due to the predictability of the result. Thus, the teams and sport leagues would start incurring the risk of long-term loss of spectators, with a risk of dominance by some teams while others would go bankrupt.

Considering this broad discussion on the competitiveness in football industry, this paper gives a priority to the study of the risks of some teams concentrating wins and titles, in contrast to their opponents, which characterizes a dominance of the former over the latter and impairing the success of the championships in the long run. This paper also addresses the change in championship model as was adopted by Brazilian teams in 2003 in an attempt to “copy” the European national championships, which use the point system. The conclusions hereby, despite the short time for comparison, are also related to the selection of that system.

The main objective of this paper is comparing and interpreting the levels of competitiveness between Brazilian and European football, more specifically among the five biggest football centers in the world (England, Spain, Germany, France and Italy). The interpretation of the results will be related to the risk of dominance by some teams, bankruptcy by others, and reduced number of fans in the long term. The characteristics of the structure and management of the Brazilian football, which might influence the results achieved as well as the current point-system championship model that follows the patterns of European national championships, are also analyzed.

Table 1 illustrates the object and subject of this research, as based on Tachizawa (2002), carrying the type of organization and defined topic.

Table 1 – Type of organization and defined topic

Subject: Sport Administration		
Object: Football Industry		
Title: Comparing the Competitiveness between Brazilian and European Football (Soccer) (G-5) – Interpretations and Suggestions		
Subject and Object	Type of organization	Defined topic
Quantitative Research on Sport Administration	Brazilian football teams competing in the major league	Comparing the competitiveness (balance) of the five biggest European championships with the Brazilian championship and interpreting the results

This paper makes use of secondary data and championship results disclosed by the football associations of the studied countries. It is limited to a comparison of the levels of competitiveness and sports balance in Brazil and in the five biggest football centers in Europe, namely: Italy, Germany, Spain, England and France.

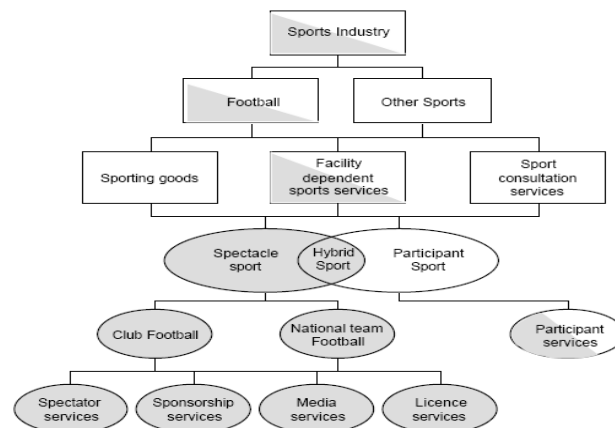
THE FOOTBALL INDUSTRY

World sport has been seen as a growing industry, generating revenues of roughly US\$ 1 trillion a year. Playing a major role in this industry, football (soccer) is accountable for an annual turnover of approximately US\$ 250 billion – Brazil's share being approximately 1% of that amount.

One way to understand the football industry lies in the typology proposed in Figure 1, which is based on Westerbeek and Smith (2003, p.89). It suggests that the sport industry is divided into three main segments, as described by Ducrey et al. (2003):

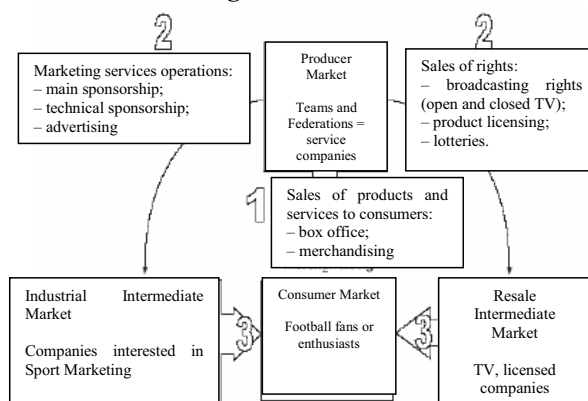
- Sporting Goods – Manufacturers of equipment, sports materials, licensed products. Examples include: Nike, Adidas and Reebok.
- Consulting – Firms providing services such as consulting, management, sport medicine, amongst others. Examples include: IMG and Octagon.
- Sports Services – Organizations offering the sport as their end product. This segment can be divided into three categories, as follows:
 - The Event – Organizations that generate revenue, either directly or indirectly, from the spectators. In this category, the athletes are professional and examples of participating entities include the teams and Leagues.
 - Participants – Entities providing opportunities for people to engage in sporting activities, at a non-professional level, such as amateur teams, gymnasiums and sports communities.
 - Hybrid – Organizations provide a mix of the above-mentioned categories: the event and the participants. Examples include those government agencies developing mass participation and promoting athletes who could stand out at an elite level.

Figure 1 – The Structure of the Football Industry (Westerbeek and Smith, 2003). Adapted by the author.



Another view of the football industry is found in Leoncini (2001) and is based on Aidar et al. (2000), which divides the structure of football as follows: i) Producer Market; ii) Consumer Market; iii) Intermediate Market (Resale and Industrial). That perspective is demonstrated in Figure 2, below.

Figure 2: The structure of Football

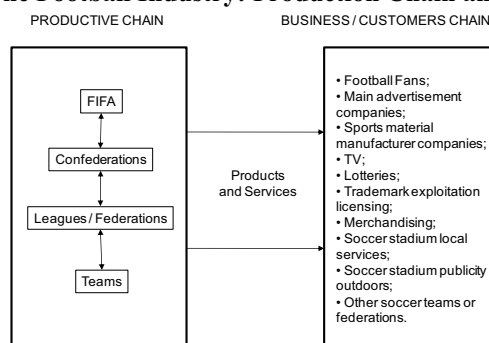


According to this viewpoint of Aidar et al (2000), the football fans are the consumer market, who have a direct commercial relation via box office or merchandising with the Producer Market represented by the football associations. This consumer market also consumes from the Intermediate Resale Market (TV and licensed companies) and from the Intermediate Industrial Market (sports marketing companies). Lastly, the Intermediate Resale Market and the Intermediate Industrial Market interact with the Producer Market by selling broadcast rights and marketing operations, respectively.

The organization of the producer market follows a world hierarchy, whereby FIFA (International Federation of Association Football) is the maximum authority in football and below it come the confederations, which accountable for football in their respective continents, as is the case of CONMEBOL (South-American Football Confederation) and UEFA (Union of European Football Associations).

Following that hierarchy, there are the national federations or confederations such as CBF (Brazilian Football Confederation), the sports leagues and the state federations, such as FERJ (Rio de Janeiro State federation), and then come the teams.

Figure 3: The Football Industry: Production Chain and Customers



In England, there is also an attempt to classify the consumer market, the football fan, into: i) virtual fans (who do not go to the stadium); ii) local fans, who attend the matches at the stadiums in their region; iii) followers, who follow the team to other regions; iv) Family Supporters, who go to the stadium with another family member; and v) Corporate Supporters, those who go to the stadium and require special treatment in the cabins and VIP areas. (Leoncini, 2001).

One of the peculiarities of this end consumer in football is that, differently from ordinary merchandise, his/her relationship with the team is lasting, despite the service it provides not being one of the best, like for example: no titles, discomfort and insecurity in the stadiums. As studied by Taylor (1998), this is an emotional relationship converted into a commercial relationship, the description of which is described in one of the best known cases in football, the team Manchester United. Since the team had a higher reputation than the other English teams, it was

a leader in terms of the average public attending its matches even when it failed to win titles (Szymansky 1995). In Brazil, the football teams manage to narrow the relationship with the fans even being relegated to the second division in the league, as is the case of Botafogo, in Rio de Janeiro, or even down to the third division, like Fluminense, also in Rio.

That customer-team relationship suggests that football demand is inflexible in relation to price (Szymansky; Kuypers, 1999). Nonetheless, in Brazil, such inflexibility appears to be discussable as the teams fail to achieve better revenues at the box offices due to price increase. One factor that might contribute to such inflexibility is that football is competitor in the entertainment industry, which provides the society with other alternatives (such as the cinema, theater, music shows, and other sports), and the Brazilian society has demonstrated some dissatisfaction with the level of the service provided in the sports events. That fact demonstrates as a strategic error in running the business, as described by Porter (1998, p.26), that: "Many managers concentrate exclusively on their direct antagonists in the fight for market share and go unnoticed that they too are competing against their customers and suppliers for bargain power. Meanwhile, they also neglect the attention to the newcomers or fail to recognize the subtle threat of substituting products."

Still regarding end customers, according to Ducrey et al. (2003), the most important factors for the fans are as follows:

- The quality of the match – This has to do with aspects of the show, entertainment, the pleasure to watch the matches and the quality of the visiting teams.
- Uncertainty, or unpredictability of the result (of the match or championship) – Regarding the uncertainty of a match, generally, the tighter the result expected for a match, the more that match is attracting to the fans. As to the result of a championship, understanding goes that the average attendance is influenced by the dispute and that the higher the competitive balance, more teams have a chance to win the title. Consequently, the fans consume more as a response to such fierce competition, thus increasing the commercial activities related to the championship and the teams.
- The success of that fan's team – There is a level of satisfaction in those fans which is achieved by the team's good performance. Teams that constantly lose are less attractive to the public.

Michael Porter (1986) asserts that, in order to reach a defendable position in the market, the companies can use three types of generic strategies to always lead some sort of market. One such strategy proposes leadership of one market niche, if it is not possible to lead the market as a whole, by total cost or by product differentiation. Therefore, the incentive to leadership and the possibility to it ensure greater competitiveness in the industry. According to the championship models of the major European centers, there is an option to lead niches – one example refers to the intermediate leaders that qualify for a the UEFA Cup or for the Champions Cup – or to lead the championship as a whole or the lower block in the standing, which ensures the team to remain in the first division championship for another year. That model, which encourages neache leaderships, makes the tournament more attracting even for the fans of those teams that cannot lead the championship as a whole.

Another perspective on the structure of football shows that the performance of a team can be understood by the characteristics of the industry (structure and behavior) and by that team's strategy (Leoncini, 2001). This analysis was performed by Szymansky & Kuypers (1999), who identified critical factors that could explain the logic of the football business, namely: i) Sport Performance – the team's performance in the championship; ii) Operating Profit – The difference between the revenues generated by the team and its overall expenses before Income Tax; iii) Salary Expenditures – The expenditures on salaries, especially those of the technical department (players, coaches, trainers, etc.); iv) The Result from Player Transfer – the financial income from the operations in the players market.

Despite a proven relation between performance in the field and financial performance does not exist, such factors would indeed making up the basis for two relationships studied in the definition of a football team's strategic management scope, namely: i) salary expenditures x performance in the field; ii) performance in the field x generated revenues (Leoncini, 2001).

According to Dell'Osso and Symanski (1991), salary expenditures might have a direct relationship with the performance in the field. However, the expenditures on high wages also represent a threat to the financial balance of the teams, thus making that equation more difficult to be solved. An aggravating factor is that one team may invest in great players for a short-term performance, win titles and yet have losses in the end of the fiscal period. In Europe, specifically in the English football, the concern with that threat of the high wages is visible in the administration reports of the teams, as is the case of the 2003 annual report of Liverpool : "As we see it, the team continues to exercise careful control over the costs related to the wages paid to the players". (Authors' Translation)

Lastly, it is possible to analyze the football industry through its sources of revenue, as per Leoncini (2001), whereby the most common commercial relationships for Italian/English leagues and teams can be classified on the basis of the following types of revenue: i) the relationship with TV (transmission rights); ii) the relationship with the main sponsor; iii) the relationship with the Lotteries; iv) the relationship with the fan (box office/merchandising); v) the relationship with the technical sponsor; vi) the relationship with merchandise producing companies (operating the brand via licensing / advertising signs); vii) the relationship with other teams / federations (trade of players).

This paper makes use of the classification of the revenue sources described in the reports of the richest teams in the world in terms of revenue by DELOITTE & TOUCHE, namely: i) Commercial, which is divided into a) Merchandising and Licensing; b) Sponsorship and Supply of sport material; ii) Box office; iii) The Media. The comparative analysis between the sources of revenue of European teams and the Brazilian teams is included in section 3.2.4 on Brazilian football.

METHODOLOGY

The research on competitive balance was firstly conducted on the basis of what the literature on industrial economics and the economic regulation presents as industrial concentration measures. These are measures demonstrate, ex-post, what can be regarded as a dominating position or even, in terms of regulation, as a market power a company holds in view of its competitors. Such industrial concentration measures include the concentration ratios and especially the Herfindahl-Hirschmann Index (HHI) as an indicator that is also used in the analyses of the concentration actions by economic regulation agencies such as the US Federal Trade Commission.

Concerning the specific research on competitive balance, the work of Oughton & Michie (2004) summarizes the main techniques used in sports leagues. Such measures are listed in Table 2 of the Appendix to this paper. In the specific case of the competitive balance in football, item “b” of Table 2 shows the different papers addressing this sport which are classified in accordance with the objectives of the research, such as: i) long-term dominance, ii) seasonal; iii) match.

In the analyses of the papers on the balance in football and sport leagues, the HHI is observed to be used both for long-term dominance concerns and seasonally, which is in accordance with the delimitation of the proposed study. Thus, in view of the acceptance of this indicator as a measure of concentration as well as in the publications about sports leagues and football, this paper is intended for calculating the results of the five largest European football markets (Germany, Spain, France, England and Italy), having the HHI as a measure of analysis.

The time period to be studied is ten years, considering the difficulties to obtain the figures for the Brazilian Championship before that period of time due to the different formats the teams used.

In this setting, two problems become relevant for the research and are presented below and solved in section presenting the two calculations to be used.

i) The changes in the championship model for the Major League (‘A’ Series) of the Brazilian Championship
Before 2003, the model adopted in the Brazilian Championship was known as qualifying phase model. After (and including) 2003, the point system model was selected. Thus, like in 2002, for example, the first eight teams of the first phase of the tournament would qualify for the second phase. This means that a given team could have more points, or better performance, throughout the championship and not be the champion, since the advantages achieved in the first phase could be lost in the second phase. Moreover, some teams (those classifying for the next phase) ended up playing more matches than others (which would not classify), thus impairing the calculations.

ii) The amount of teams competing in the championships

Both in Europe and in Brazil there are cases whereby the amount of competing teams varies from year to year within the historical sequence to be studied. Also, the number of teams that vie in the tournament varies from country to country.

These problems are solved below in the demonstration of the two types of calculations.

- **Calculation 1: HHI – Oughton & Michie (2004) Model – Seasonal**

This calculation is used in papers such as that of Oughton & Michie (2004), and also used by Depkin (1999), by calculating the HHI on the classification table and the performance in percentage for each team. For

demonstration purposes, the table below describes the HHI, for the example of the maximum unbalance possible, for 20 teams.

The calculation is done on the performance of each team in the championship and by the sums of the squares of that performance, as per the formula below, whereby S_i is the performance of each team in relation to the potential maximum points total:

$$HHI = \sum_{i=1}^n S_i^2$$

Table 2: Teams Performances and Maximum HHI

TEAMS	MATCHES	WINS	PPG	TOTAL	MAXIMUM	PERFORMANCE (%)	(PERFORMANCE) ²
1	38	38	3	114	114	100%	1.000
2	38	36	3	108	114	95%	0.898
3	38	34	3	102	114	89%	0.801
4	38	32	3	96	114	84%	0.709
5	38	30	3	90	114	79%	0.623
6	38	28	3	84	114	74%	0.543
7	38	26	3	78	114	68%	0.468
8	38	24	3	72	114	63%	0.399
9	38	22	3	66	114	58%	0.335
10	38	20	3	60	114	53%	0.277
11	38	18	3	54	114	47%	0.224
12	38	16	3	48	114	42%	0.177
13	38	14	3	42	114	37%	0.136
14	38	12	3	36	114	32%	0.100
15	38	10	3	30	114	26%	0.069
16	38	8	3	24	114	21%	0.044
17	38	6	3	18	114	16%	0.025
18	38	4	3	12	114	11%	0.011
19	38	2	3	6	114	5%	0.003
20	38	0	3	0	114	0%	0.000
BASIS							6.842
HHI (MAXIMUM)							0.068

PPG – Points per game

The table below shows that maximum and minimum HHI in accordance with the number of teams competing in the championship. Thus, in the case of a 20-team championship, if the HHI calculation reaches, for instance, “0.4789” in a given year, it means that for that particular year the HHI is 70% from the maximum HHI, that is, from the maximum unbalance, which in that case would be “0.0684”. Thus, problem “ii” above, with relation to the number of teams competing in the championship, would be solved since using a percentage of the maximum HHI would act as a standard setter is independent from the number of teams.

Table 3: Maximum and Minimum HHI.

TEAMS	MATCHES *	MAX HHI	MIN HHI
18	17 or 34	0.0684	0.0222
20	19 or 38	0.0684	0.0222
22	21 or 42	0.0751	0.0244
24	23 or 46	0.0817	0.0267
25	24 or 48	0.0851	0.0278
26	25 or 50	0.0884	0.0289
28	27 or 54	0.0951	0.0311

* For calculating the HHI Max, it does not matter whether the format is for one shift (one leg) or double shift (two legs).

This way, it will be possible to calculate, for the five largest European championships and for the Brazilian championship, a history for those ten years in relation to the maximum HHI and a trend curve, thus allowing for comparing the Brazilian competitive balance in relation to the other championships.

Moreover, in order to avoid problems regarding the amount of matches to be played, in the case of Brazil, for the years in which the championship did not follow the points system (before 2003), data corresponding only to the first phase (the qualifying phase) will be used.

Yet, despite being one of the best indicators for comparison, using such data means assuming problem “i” presented above, whereby the champion may not have the best performance of all teams in the tournament, in the case of the Brazilian championship before 2003. This problem shall be offset in calculation “2” herein.

- Calculation 2: Model of Dell’Osso. F & Symanski, S (1991)

This paper also uses the measure proposed by Dell’Osso. F & Symanski, S (1991), included in the paper ‘Who Are the Champions?’, as a simple calculation to supplement the previous analysis by granting 1, 2 and 3 points

for first, second and third places in the championship, respectively, and by verifying the concentration of the same teams in the first positions in the championship, thus representing a long-term dominance.

This methodology shall be complemented by using the HHI in order for us to demonstrate the concentration of such teams in the first positions of the tournaments over a period of time, in this case, ten years. This methodology is based on Gerrad (2004) and Eckard (2001) for long-term dominance.

Also, for this calculation, the figures achieved with the maximum HHI are compared. In that case, the “Maximum HHI” represents the maximum concentration of times in the first three positions, representing the most unbalance possible, as shown next.

The comparison of this “maximum HHI” (example 1) will be made against another more balanced situation (example 2). In example 2, the historical HHI for the ten-year period studied accounts for only 32% of the Maximum HHI, which would represent the maximum unbalance.

Example 1:

COUNTRY	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI MAX
Team A	3	3	3	3	3	3	3	3	3	3	30	50%	2500
Team B	2	2	2	2	2	2	2	2	2	2	20	33%	1111
Team C	1	1	1	1	1	1	1	1	1	1	10	17%	278
TOTAL											60	100%	3889

Champion: 3 points; Vice Champion: 2 points; Third place: 1 point.

Example 2:

COUNTRY	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI
Team A	3	3	3	2	2	2	1	1	1	1	19	32%	1003
Team B	2	2	2	1	1	1	0	0	0	0	9	15%	225
Team C	1	1	1	0	0	0	0	0	0	0	3	5%	25
Team D	0	0	0	3	3	3	2	2	2	2	17	28%	803
Team E	0	0	0	0	0	0	3	3	3	3	12	20%	400
TOTAL											60	52%	1253

HHI MAX	% HHI MAX
3389	32.21%

Champion: 3 points; Vice Champion: 2 points; Third place: 1 point.

This way, it will be possible to calculate this figure for the five largest European championships and for the Brazilian championship around a figure that analyzes the concentration difference of the same teams in the first divisions. This becomes an effective measure of long-term dominance.

Moreover, complementing calculation “1” proposed above, this becomes a way to solve problem “i”, in such a way that the first places in the final classification are those acting as the basis for comparison..

RESULTS

The results for the studies are demonstrated as per the two calculations described in the methodology. The first of them is based on the model of Oughton & Michie (2004) and on other works such as that of Depkin (1999) for determining the seasonal competitive balance. The second is based on authors such as Dell’Osso. F & Symanski, S (1991), Gerrad (2004) and Eckard (2001) for long-term dominance. The interpretations on the results and the comments about other sports and about future researches are presented next.

a. SEASONAL CALCULATION

The seasonal calculation considered the annual classification for each championship for the 10-year period. Firstly, the data for each country are presented – such data being calculated on a yearly basis and compared with the maximum unbalance possible for the number of teams competing in the tournament. These data are presented as a table in section a.1.

Next, the graphs with the curves are presented. Firstly, the graphs are related to that maximum unbalance and, secondly, they are related to the trend curve in logarithms of the previous graph. These data are presented in section a.2.

a.1 Tables.

				H INDEX		% Max Unbal. Brazil
Season	teams	matches		Max	Min	
2005 / 06	22	42		0.0751	0.0244	0.0487
2004 / 05	24	48		0.0817	0.0267	0.0508
2003 / 04	24	48		0.0817	0.0267	0.0524
2002 / 03	26	25		0.0884	0.0289	0.0582
2001 / 02	28	27		0.0951	0.0311	0.0632
2000 / 01	25	24		0.0851	0.0278	0.0552
1999 / 00	22	21		0.0751	0.0222	0.0471
1998 / 99	24	23		0.0817	0.0267	0.0534
1997 / 98	26	25		0.0884	0.0289	0.0561
1996 / 97	24	23		0.0817	0.0267	0.0529

				H INDEX		% Max Unbal. Italy
Season	teams	matches		Max	Min	
2005 / 06	20	38		0.0684	0.0222	0.0464
2004 / 05	20	38		0.0684	0.0222	0.0425
2003 / 04	18	34		0.0618	0.0200	0.0416
2002 / 03	18	34		0.0618	0.0200	0.0397
2001 / 02	18	34		0.0618	0.0200	0.0405
2000 / 01	18	34		0.0618	0.0200	0.0401
1999 / 00	18	34		0.0618	0.0200	0.0399
1998 / 99	18	34		0.0618	0.0200	0.0398
1997 / 98	18	34		0.0618	0.0200	0.0409
1996 / 97	18	34		0.0618	0.0200	0.0379

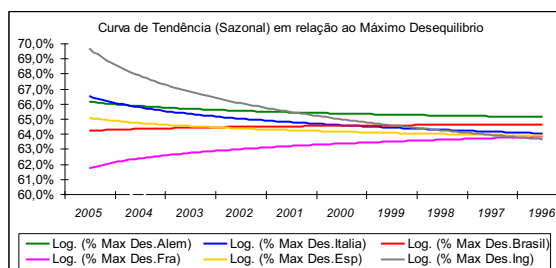
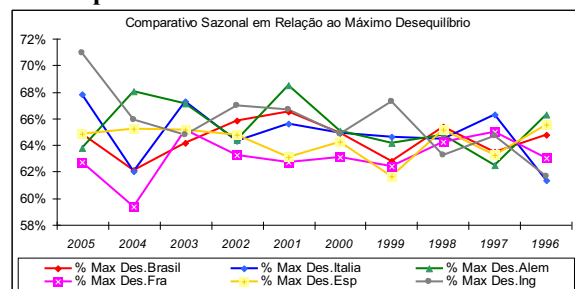
				H INDEX		% Max Unbal. Germany
Season	teams	matches		Max	Min	
2005 / 06	18	34		0.0618	0.0200	0.0394
2004 / 05	18	34		0.0618	0.0200	0.0420
2003 / 04	18	34		0.0618	0.0200	0.0415
2002 / 03	18	34		0.0618	0.0200	0.0398
2001 / 02	18	34		0.0618	0.0200	0.0423
2000 / 01	18	34		0.0618	0.0200	0.0402
1999 / 00	18	34		0.0618	0.0200	0.0397
1998 / 99	18	34		0.0618	0.0200	0.0400
1997 / 98	18	34		0.0618	0.0200	0.0386
1996 / 97	18	34		0.0618	0.0200	0.0410

				H INDEX		% Max Unbal. Eng.
Season	teams	matches		Max	Min	
2005 / 06	20	38		0.0684	0.0222	0.0485
2004 / 05	20	38		0.0684	0.0222	0.0451
2003 / 04	20	38		0.0684	0.0222	0.0443
2002 / 03	20	38		0.0684	0.0222	0.0458
2001 / 02	20	38		0.0684	0.0222	0.0456
2000 / 01	20	38		0.0684	0.0222	0.0444
1999 / 00	20	38		0.0684	0.0222	0.0460
1998 / 99	20	38		0.0684	0.0222	0.0433
1997 / 98	20	38		0.0684	0.0222	0.0443
1996 / 97	20	38		0.0684	0.0222	0.0422

				H INDEX		% Max Unbal. Spain
Season	teams	matches		Max	Min	
2005 / 06	20	38		0.0684	0.0222	0.0444
2004 / 05	20	38		0.0684	0.0222	0.0446
2003 / 04	20	38		0.0684	0.0222	0.0446
2002 / 03	20	38		0.0684	0.0222	0.0443
2001 / 02	20	38		0.0684	0.0222	0.0432
2000 / 01	20	38		0.0684	0.0222	0.0440
1999 / 00	20	38		0.0684	0.0222	0.0422
1998 / 99	20	38		0.0684	0.0222	0.0446
1997 / 98	20	38		0.0684	0.0222	0.0433
1996 / 97	22	42		0.0751	0.0244	0.0492

				H INDEX		% Max Unbal. France
Season	teams	matches		Max	Min	
2005 / 06	20	38		0.0684	0.0222	0.0429
2004 / 05	20	38		0.0684	0.0222	0.0406
2003 / 04	20	38		0.0684	0.0222	0.0446
2002 / 03	20	38		0.0684	0.0222	0.0433
2001 / 02	18	34		0.0618	0.0200	0.0388
2000 / 01	18	34		0.0618	0.0200	0.0390
1999 / 00	18	34		0.0618	0.0200	0.0386
1998 / 99	18	34		0.0618	0.0200	0.0397
1997 / 98	18	34		0.0618	0.0200	0.0401
1996 / 97	20	38		0.0684	0.0222	0.0431

a.2 Graphs.



b. DOMINANCE CALCULATION

The dominance calculation considered the final positions of the yearly classifications. From them, the concentration of the same teams in leading positions (first, second and third place) was calculated by using the HHI concentration indicator for the 10-year period and through a comparison amongst the various national championships.

The tables below show the calculations by National Championship and, next, a table is presented in order of unbalance, which summarizes the data presented.

b.1 Tables.

BRAZIL	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI	% HHI MAX
Corinthians	3			2			3	3			11	18%	336.1	
Santos		3	2	3				1			9	15%	225.0	
Cruzeiro			3			1		2			6	10%	100.0	
Vasco						3			3		6	10%	100.0	
Atlético PR		2			3						5	8%	69.4	
Grêmio				1						3	4	7%	44.4	
S.Caetano					2	2					4	7%	44.4	
São Paulo		1	1				1				3	5%	25.0	
Atlético MG							2			1	3	5%	25.0	
Internacional	2								1		3	5%	25.0	
Palmeiras									2		2	3%	11.1	
Portuguesa										2	2	3%	11.1	
Fluminense					1						1	2%	2.8	
Goiás	1										1	2%	2.8	
TOTAL											60	100%	1022.1	26%
ENGLAND	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI	% HHI MAX
Chelsea	3	3	2					1			9	15%	225.0	
Manchester	2	1	1	3	1	3	3	3	2	3	22	37%	1344.4	
Arsenal		2	3	2	3	2	2	2	3	1	20	33%	1111.1	
Liverpool	1				2	1			1		5	8%	69.4	
Leeds							1				1	2%	2.8	
New Castle				1							2	3%	25.0	
TOTAL											60	100%	2777.7	71%
SPAIN	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI	% HHI MAX
Barcelona	3	3	2				2	3	3	2	18	30%	900.0	
Valencia	1		3		3		1				8	13%	177.8	
Real Madrid	2	2		3	1	3		2		3	16	27%	711.1	
Deportivo			1	1	2	2	3				9	15%	225.0	
Villareal		1									1	2%	2.8	
Real Sociedad				2					1		3	5%	25.0	
Mallorca						1		1			2	3%	11.1	
Atletico Bilbao									2		2	3%	11.1	
Sevilla										1	1	2%	2.8	
TOTAL											60	100%	2066.7	53%
ITALY	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI	% HHI MAX
Juventus	3	3	1	3	3	2	2		3	3	23	38%	1469.4	
Milan	2	2	3	1			1	3			12	20%	400.0	
Roma			2		2	3					7	12%	136.1	
Lazio						1	3	2			6	10%	100.0	
Inter Milano	1	1		2	1				2	1	8	13%	177.8	
Fiorentina								1			1	2%	2.8	
Udinese									1		1	2%	2.8	
Parma										2	2	3%	11.1	
TOTAL											60	100%	2300	59%
GERMANY	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI	% HHI MAX
Bayern München	3	3	2	3	1	3	3	3	2	3	26	43%	1877.8	
Werder Bremen	2	1	3								6	10%	100.0	
Borussia				1	3	1				1	6	10%	100.0	
Kaiserslautern									3		3	5%	25.0	
Hamburg	1						1				2	3%	11.1	
Schalke 04		2				2					4	7%	44.4	
Bayer Leverkusen			1		2		2	2	1	2	10	17%	277.8	
Stuttgart				2							2	3%	11.1	
Hertha Berlin								1			1	2%	2.8	
TOTAL											60	100%	2450	63%
FRANCE	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	TOTAL	%	HHI	% HHI MAX
O. Lyonnais	3	3	3	3	3	2	1	1			19	32%	1002.8	
Monaco		1	1	2			3		1	3	11	18%	336.1	
Nantes						3				1	4	7%	44.4	
Bordeaux	2							3			5	8%	69.4	
Lens					2				3		5	8%	69.4	
Lille	1	2				1					4	7%	44.4	
Paris S.Germain			2				2			2	6	10%	100.0	
Marseille				1				2			3	5%	25.0	
Auxerre					1						1	2%	2.8	
Metz									2		2	3%	11.1	
TOTAL											60	100%	1705.4	44%

b.2 Grouped Table

The table below groups the results shown above in maximum unbalance order, from the long-term dominance viewpoint. Thus, the English Championship, over the past ten years, has the highest unbalance index, represented by the concentration of the same teams in the first three positions in the final standing.

COUNTRY	% HHI MAX
England	71%
Germany	63%
Italy	59%
Spain	53%
France	44%
Brazil	26%

CONCLUSIONS AND RECOMMENDATIONS

In order to avoid dominance by some teams, and the consequent bankruptcy of others, thus bringing about serious losses to a very profitable business such as the football industry, the balance of forces among the teams competing in the Brazilian championship should be pursued, in spite of the data favoring Brazil, as presented in the table grouped in the results of this paper. By comparing the levels of competitiveness between the Brazilian championship and the championships of the five biggest world football centers (England, Spain, Germany, France and Italy), and by interpreting the results, it can be inferred that:

1. The change in championship model as adopted by the teams in Brazil in 2003, which involves the point system format with options for classification to other football cups, has been leveraging the balance amongst the competing teams;

2. Repatriating high-renowned veteran players, on moderate-cost wages, represents an attempt in Brazil to improve the quality of each match. This factor (the quality of the match) is one of the three most important factors, along with result uncertainty and unpredictability and team success, in order to keep the end customers, the followers, in the stadiums.

These arrangements are making the matches in Brazilian football less predictable and more attracting, thus bringing more fans to the stadiums and increasing the number of viewers of the matches broadcasted on TV, consequently increasing the revenue of the football industry, which comprises the sales of merchandise; consulting, especially sports medicine consulting; and the sports services, like the matches and sports activities provided for the population as a whole.

On the other hand, a recommendation based upon this study should be made in order to enhance the financial balance and the balance of forces amongst the teams vying in the Brazilian championship:

Selling tickets for the championship matches in advance, by means of payment booklets that allow for an easier way for the stadium-goers to pay for their tickets, also represents an example provided by the main European championships of converting emotional relationship into commercial relationship, which should be followed in Brazil since the Brazilian demand does not seem to be as inflexible regarding ticket prices as verified by Szymansky and Kuypers (1999) in European football.

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SMALL GROUP PRE-EXAMINATION WORKSHOPS AND PERFORMANCE IN THE INTRODUCTORY MANAGEMENT SUBJECT AT THE UNIVERSITY OF WESTERN AUSTRALIA'S BUSINESS SCHOOL

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ABSTRACT

The purpose of this paper is to explore the benefits of small group learning in pre-examination workshops for first year students. Three methods were used to collect qualitative and quantitative data. These were interviews, a focus group and a questionnaire survey. Students' grades in the current semester were compared to students' grades in the previous 4 years to determine if there was any improvement. Key findings are that an overwhelming majority of tutors and students believe that the small group pre-examination workshops are a positive experience and invaluable in aiding student examination preparation and strategy. Students' grades appeared to be slightly higher than in previous semesters, however faculty scaling policy makes this difficult to determine with certainty. This paper adds to the academic literature on small group learning.

INTRODUCTION

One of the greatest challenges for universities today is to encourage independent learning in first year students, yet at the same time to provide assistance for a smooth transition from secondary school to the expectations and requirements of successful performance at university (McInnis and James 1995). One of the many challenges first year students encounter is the examination essay which requires skills of critique, order and judgment, all to be carried out within a constrained time frame (Brackley 1999). Examination essays can therefore serve as a source of great anxiety for students who are unaware of the depth of analysis and writing that is required of them in a university level examination. Markers have found that first level student examination essays lack structure and clarity, with it frequently being the case that students memorise key concepts, yet are unable to integrate these concepts into a coherent and well structured answer (Brackley 1999). This paper reports the findings of a study conducted in 2009 at the University of Western Australia Business School. Prior to this current study, a 2008 pilot study provided students in the introductory management subject - Management and Organisations (MGMT1136) - with the opportunity to attend a pre-examination workshop where they could ask questions and seek clarification about course material. This 2009 study built upon that model by providing a workshop booklet containing example short answer and essay questions. The aim of the booklet was to familiarise students with the depth and detail of analysis that was required, and further to assist them with the actual process of writing an examination essay. By providing students with a chance to meet in small groups and discuss concepts related to the course prior to the examination it was hoped that the general standard of examination answers in terms of integration and comprehensiveness would improve. It was also hoped that this better understanding would be reflected in students' end of semester grades. This theory is supported by research undertaken by Munk and George (2003, p. 9), who found that, 'group learning shifts learning from that of total recall, to a greater understanding of concepts'. They further comment that novel teaching situations and student involvement, such as that provided by workshops, influences students' motivational levels and encourages students to adopt a deeper approach to learning (Munk and George 2003). This is supported by Vincett & Farlow (2008, p. 274) who found that 'hands-on' experiential learning, and learning by doing, generally encourages divergent thinking in students and results in more favourable evaluations of the task.

In short, the main aim of this research was to see whether small group pre-examination workshops assist the learning of first-time Management students in a University's Business School and ultimately improves their results.

The overarching methodology used in this study was triangulation, described in more detail later, because three methods were used to collect qualitative and quantitative data; namely, interviews, a focus group and a questionnaire survey. Analysis of students' grades at the end of semester was also conducted to determine if they had changed significantly over the years. The findings indicate that the students and tutors viewed the small group learning environment as a positive and valuable experience in preparing for their final examinations. There is scope to improve the workshop program and also potential for it to be applied university wide.

LITERATURE REVIEW

The benefits of small group and collaborative learning are well supported in the literature (Fall & Web 2000; Gillies 2003; Johnson & Johnson 1999). According to Springer et al. (1999, p. 22), 'what students learn is greatly influenced by how they learn, and many students best learn through active, collaborative, small group work inside and outside the classroom'. It is argued small group learning leads to greater academic performance (Gillies 2003; Springer et al. 1999; Yamarik 2007), enhanced communication and better tolerance of divergent points of view (Sifris & McNeil 2002) and more favourable attitudes and persistence towards learning (Springer et al. 1999). Munk and George (2003) further suggest that small group learning is an effective way of encouraging learning above and beyond that provided by lectures, as it provides an opportunity for students to discuss and debate other students' ideas (See also Gillies 2003; Hammill 2007). Often the small group situation is seen as less daunting by students, who may otherwise not ask questions (Sifris & McNeil 2002). This is particularly true of students from non-English speaking backgrounds (NESB), who often lack confidence, yet also report that they feel they have less understanding of academic expectations (Brackley 1999). In a study conducted by Lou et al. (1996), it was found that students achieve more when they work together in small groups than they do as a whole class. However this finding was contingent on group size and composition as well as the amount of training provided to teachers. Interestingly, low performing students performed best when placed in a heterogenous group in terms of performance levels, while high performing students were unaffected by the performance levels of their peers (Lou et al. 1996). While small group learning has therefore proven to be effective, Küster & Vila (2006) stress the importance of understanding and tailoring teaching methods to the particular environmental context. Yet as Springer et al. (1999) point out, with the increased need for collaborative work in the business environment, surely it is best to reinforce this need by exposing students to collaborative work in the classroom.

The literature on the benefits of pre-examination workshops is less well established, with very few studies in existence. One study by Francisco et al. (1998) that considered changes in student academic performance after attending study skills and examination workshops found that students who attended the workshops performed significantly better on examinations. This same study found that attendance at workshops is thought to lower anxiety prior to the examination and increase confidence as students are more aware of what to expect (Francisco et al. 1998). Hammill (2007) also reported on a study skills program that guided students through the essay writing process. They found attendance at the study skills workshops resulted in a significant decrease in re-sit rates for the course as well as an increase in retention rates. The author commented that, 'many of the students were previously not aware of how to start an essay, they did not realize they needed to pull apart the question, look at key words, and possibly design a mind-map prior to writing' (Hammill 2007, p. 6). Finally Hutcheson (2008) looked at whether providing students with a resource on assignment writing and plagiarism would improve essay assignment marks. The results were somewhat mixed, with the assignment writing guide proving beneficial to some, but not overcoming all the problems students faced in essay writing. There therefore exists significant scope for further research to be conducted in the area of pre-examination workshops in order to determine whether they provide any benefit to students' academic achievement.

METHOD

This study was conducted in Semester 1 of 2009 and used triangulation in order to obtain feedback from both students and tutors. In a social and business research context, triangulation refers to the use of multiple data

sources within a single study (Bryman 2001; Collis & Hussey 2003; Ghauri & Grønhaug 2005; Richards 2005; Saunders et al. 2003; Tharenou et al. 2007). Simon et al. (1995, p. 16) argue that, '[in] order to lend weight to the data gathered...more than one method should be used to collect the data'. This is due to the fact that it is unlikely for a single technique to expose every dimension in a specific reality under scrutiny (Denzin 1989). As such, a subject should be viewed from many angles. Simon et al. (1996, p. 34) add that 'the use of both quantitative and qualitative techniques to obtain a clearer picture of reality makes sense and answers many of the questions raised by the critics of traditional research'.

Thirty six workshops were conducted by current tutors and comprised groups of 6 students attending a 1 hour session in the study week prior to examinations. Upon arrival at the workshop, students were given a workshop booklet and were asked if they had any immediate questions about the unit content. It was then left to the individual tutors running the workshops to guide the students through the workshop booklet and to answer any questions that may have arisen. At the conclusion of each workshop, students were asked to complete an anonymous questionnaire consisting of both closed and open ended questions. One hundred and fifty two of 203 students (74.9%) responded to the questionnaire survey which asked them for their feedback on the usefulness of the workshops to their examination preparation and potential performance. All seven tutors who conducted the workshops were later interviewed by telephone by the study coordinators. They were assured that their individual transcribed comments would remain anonymous. A focus group of seven volunteer students was also conducted following the examination. Finally, once students' semester grades were known, they were compared with students' grades from the previous 4 years in order to determine if there was any significant improvement in overall marks, assumedly as a result of attending workshops.

FINDINGS AND DISCUSSION

FINDINGS FROM THE QUESTIONNAIRE SURVEY

Before analyzing the data, we checked for validity and reliability. Denzin (1970, cited in Collis & Hussey 2003, p. 78) defines triangulation as a 'combination of methodologies in the study of the same phenomenon'. It is argued that the use of multiple data collection methods by researchers investigating the same phenomenon should result in superior validity and reliability compared to a single methodological approach (Collis & Hussey 2003; Denzin 1989). Tharenou et al. (2007, p. 306) advocate that this is because 'different sources and methods of data collection allow discrepancies to be found in order to increase valid findings'. We used three different methods for our study and the questionnaire response rate of 75% was excellent.

Reliability concerns the extent to which a measure produces consistent results and is free from error (Cooper & Schindler 2006; Davis 2005; Tharenou et al. 2007). It is used for multi-item measures, as in this study (Tharenou et al. 2007). The Cronbach Alpha statistic was used to calculate the degree of similarity of responses to similar questions in the questionnaire (Davis 2005; Saunders et al. 2003). A coefficient value of 1 represents perfect internal reliability, while 0 denotes no internal reliability. A value above .70 is generally viewed as acceptable (Bryman 2001; Cavana et al. 2001; Tharenou et al. 2007). Values of .90 or above indicate that the measure is 'highly reliable', while scales producing Cronbach Alpha coefficients of less than .70 are said to have 'less than fair' reliability, although may still be acceptable (Tharenou et al. 2007, p. 153). The Cronbach Alpha scores for relevant scales used in this research to test for reliability are presented below in Table 1.

Table 1: Cronbach Alpha Scores for Similar Cases

Scale	Cronbach Alpha
Offer workshops in other subjects	0.788
Would recommend to other students	
Would recommend to other students	0.678
A positive experience	

Out of the 203 students enrolled in Management and Organisations (MGMT1136), 152 (74.9%) attended and completed the feedback questionnaire. A summary of the quantitative finding of the questionnaire

survey is presented in Table 2 at the end of this section. Generally the feedback was extremely positive, with 94.7% of respondents either agreeing or strongly agreeing with the statement that the workshops were an overall positive experience. In terms of better preparing the students for the examination, 90.8% agreed that they felt more prepared for the examination after attending the workshop. Almost 90% of respondents also agreed that any questions that they either came prepared with or asked during the workshop, were satisfactorily answered by the tutor running the session. The majority of students also agreed (63.8%) that they felt more confident asking questions in the small group format. However 32.9% of students were neutral on this aspect of the workshops. The students were also asked whether they would like to see the workshops adopted in other units. In Australia, the term ‘unit’ is used in lieu of ‘subject’. Of the 152 students, 69 (45.4%) agreed that the workshops should be run in other units, while a further 43 students (28.3%) strongly agreed with this statement. Results were similar when students were asked whether they would recommend the workshops to other students with 65% of students agreeing that they would, while 22.4% strongly agreed. The majority of students (75%) disagreed that the workshops took up too much time. When asked whether the workshops should be an assessable component of the course, slightly more students (n=48, 31.6%) agreed with this statement, rather than disagreed (n=32, 21%). Just over a third of students (n=53, 34.9%) were neutral.

The students were also asked three open ended questions at the end of the feedback questionnaire, and responses were grouped and coded. When the students were asked to reflect on the most valuable aspects of the workshop, the above findings were well supported with the majority of students answering that either the workshops helped with structuring examination answers (n= 62, 40.8%) or that the workshops were in general ‘helpful for the examination’ (n=47, 32.9%). Other valuable aspects recorded included the small group environment, the booklet itself and clarification. When asked what the least valuable aspects were, a large number of students did not record an answer (n=105, 69.1%), while 20 students (13.2%) wrote that there were ‘no least valuable aspects’. Out of those students who did record an answer, the largest percentage (36.2%) reported the least valuable aspect was the timing of the workshop; that is, during the study break just before the examination period.

In terms of improvements, 22 students suggested running the workshops as a part of an extended tutorial in week 13, while 19 suggested that there should be more example answers. Other suggestions included practice questions in the workshop and that the workshops should be longer .

Table 2: Quantitative Findings – Students Feedback Regarding Various Aspects of the Workshop Program.

Student Questionnaire Responses*	Strongly Agree-Agree	Neutral	Strongly Disagree-Disagree	Mean
1. I feel more prepared for my examination after attending the workshop.	90.8%	7.2%	2%	4.02
2. I have had all my questions answered to a satisfactory level by the tutor running the workshop.	89.5%	10.5%	0%	4.16
3. I found the workshop too time consuming.	6.6%	18.4%	75%	2.18
4. Similar workshops should be offered in other units.	73.7%	20.4%	5.9%	3.95
5. I would recommend attending these workshops to future students.	87.5%	11.2%	1.3%	4.09
6. I feel more confident asking questions in a small group situation, like the workshop has provided.	63.8%	32.9%	3.3%	3.75
7. Workshop attendance and participation should be an assessable component of the unit.	37.5%	34.9%	27.6%	3.07
8. The workshop was a positive experience.	94.7%	5.3%	0%	4.11

*Scale was 1-5 with 1=strongly disagree, and 5=strongly agree

FINDINGS FROM THE INTERVIEWS

Upon completion of the workshops, all seven tutors who ran the workshops and were given instruction booklets were interviewed to receive their feedback about the workshop process, including any suggestions for improvements to future workshops. The interviews ran for approximately 30 minutes, and were conducted over the telephone. Responses were transcribed. A summary of the tutors' perceptions of the strengths and weaknesses of the workshops is provided in Table 3.

The second question asked of tutors was about improvements, with an overwhelming majority (six out of seven) suggesting that the workshop booklet should contain more sample questions, including a couple of questions without answers, which can then be used as an activity for completion in the workshop. Other popular suggestions included running the workshops in the last week of semester, and having more of a focus on study techniques, rather than substantive course material. Having the workshops run for only half an hour, increasing the number of students per workshop and providing more guidance for tutors themselves were also suggested. A full list of suggested improvements is provided in Table 4.

Overall, the tutors' responses and feedback was positive, with no tutor suggesting the workshops were pointless or of little benefit to students. It does however appear that some logistical issues, such as the period of time when the workshops are run, and compensation, needs to be reconsidered. Further, it was strongly suggested that the workshop booklet be made more substantial through the inclusion of more sample questions and study techniques and tips.

Table 3: Qualitative Findings – Tutors' Perceptions of Strengths and Weaknesses of the Workshop Program*

Strengths of workshops	Weaknesses of workshops
Students were able to see the required structure and depth of content (5)	Too long (only half an hour needed) (3)
Students were able to gain an appreciation of the types of questions asked in examinations (3)	Tutors unsure of exactly what they were meant to do (2)
It helped students pick out certain aspects of topics that are important (2)	Students attended just to collect booklet (1)
Hint boxes drew attention to important points (1)	Focus of the workshops should be study techniques, not course content (1)
Workshops reinforced the material (1)	It was hard to differentiate between final tutorial and the workshop (1)
	Most students hadn't started studying (1)

* Frequency of responses by tutors in brackets (Note: some tutors furnished more than one response).

Table 4: Qualitative Findings – Tutors Suggestions for Improvements*

Improvements	Frequency of suggestion
More sample questions without answers	6
Run workshop in last tutorial of semester	3
More focus on study techniques	2
More guidance regarding how tutors structure workshops	2
Don't do essay in dot point form	1
Provide a good and bad model answer	1
Condense workshops to half hour slots	1
Increase number of students per workshop	1
Ensure all students attend	1

* Some tutors provided more than one suggestion for improvement

FINDINGS FROM THE FOCUS GROUP

Seven students participated in the focus group session conducted after the examination. Anonymous responses were transcribed. There is some conflict between the responses provided by students in the questionnaire and the focus group. A potential reason for this is that those students who were motivated to volunteer their time are more motivated, organised and prepared students in general. All participants praised the workshop booklet. They appreciated gaining greater insight about the correct format and level of detail required in their examination answers as demonstrated in the examples. The participants also indicated that the marking guide was a useful tool. Participants stated that no-one came prepared with questions to ask the tutor. A couple of students even went so far as to say that it would have been useful just to collect the booklet and not have had to actually attend the workshop as it contained everything they wanted to know. Ultimately, the students all agreed that they wasted less time in the examination knowing what was required by each component. The participants were unsure as to whether attendance at the workshops would be reflected in their examination results. They did however note that they felt their answers were more focused, referenced the videos to a greater extent and had better time management than if they had not attended the workshop. The main reasons participants had for attending the workshops (other than that they were required to) were the assessment component, discovering what the examiners were looking for, and the hope of obtaining more information about the examination. A couple of the participants indicated that as opposed to putting them at ease about the examination, the workshops actually “freaked [them] out more!” The reason appears to be that they didn’t realise the level of detail required. Therefore, the workshops were also useful in communicating to students the markers’ expectations. Participants stated that the best aspects of the workshops were the booklet provided to all students, guidance about how to tackle the different components of the examination, and that it was a forum where they could vent their frustrations which they viewed as beneficial. Participants were asked for their recommendations about how to improve the workshops in future and these are summarized in Table 5 below:

Table 5: Qualitative Findings – Student Focus Group’s Recommendations for Improvement

Focus Group Recommendations
Tutors to highlight problem areas (in terms of substantive unit content)
Improve workshop booklet with additional examples
30 minute workshop
Potential for workshops to be adopted in other units
Conducted in final week of semester
Opportunity to practice drafting answer to example question in the workshop
Small groups to be composed of members from the same tutorial
Attendance mark only

SUMMARY OF CHANGE IN STUDENTS’ GRADES AFTER ATTENDING WORKSHOPS

The overall success of the workshops is perhaps best measured by any change in students’ grades in the current teaching period compared to results from previous years. However, due to compulsory scaling by the UWA Business School to a faculty mean of around 62%, it is difficult to assess if any true improvement in grades occurred. This is highlighted by the finding that for the semester in which the workshops were completed, the average mark was 61.9%, compared to an average over the past 4 years of 62.01%. Having said this, after comparing results from the previous 8 semesters to the current semester, it was found that the percentage of high distinctions (HD) awarded was the second highest overall at 3.9% (n= 8). The only other semester to record a higher percentage was in semester 1 of 2006, when 4.2% (n=7) of students received a HD. Further analysis showed that the percentage of distinctions awarded in the current semester (21.7%), while slightly higher than the percentage awarded over the last 3 years, was actually lower than in 2005 when 27.7% (semester 1) and 28.5% (semester 2) of students received a distinction. The percentage of students failing (6.4%) was the fourth lowest overall, and was lower than the historical average percentage of failure (7.34%).

Overall, these results possibly demonstrate some improvement in student grades after attending workshops, with it being kept in mind that faculty scaling makes it hard to determine if true improvement in scores occurred. Given that the percentage of HDs awarded was the second highest over the past 8 semesters, and further that the percentage of students failing was lower than the historical trend, it can be argued that there are significant merits to the workshop program. Any increase in student grades could possibly be viewed as a success of the program, however it is recognized that further analysis would need to be completed to determine if these same results could be repeated in future semesters. Table 6 below summarises the comparisons:

Table 6: Comparison of student grades (percentages) from 2005-2009

Grade	2005 S1	S2	2006 S1	S2	2007 S1	S2	2008 S2	Average – last 7 semesters	2009 S1
HD (80%+)	2.5	1.9	4.2	3.1	2.9	3.4	2.7	2.96	3.9
D (70-79%)	27.7	28.5	22	18.4	20.8	16.0	14.8	21.17	21.7
Fail (49%-)	5.0	10.2	8.4	5.7	4.9	10.5	6.7	7.34	6.4
Average	62.3	61.9	63.1	62.1	63.8	59.9	61.0	62.01	61.9
Number of students	159	207	168	196	207	238	298	210	203

CONCLUSION

University is a whole new ball-game compared with secondary school and the transition into tertiary education involves a major learning curve for many students. One of the most important challenges currently facing universities is encouraging and facilitating independent learning in first year students (McInnis and James 1995). The final semester examination can be a confronting experience for many. The benefits of small group learning are well reported (Gillies 2003; Johnson & Johnson 1999; Munk & George 2003; Springer et al. 1999); however, literature on pre-examination workshops is scarce. While the current literature on study skills programs and examination essay writing courses indicate a positive effect on performance and better retention rates (Francisco et al. 1998; Hammill 2007), more research is needed. The main purpose of this study was to investigate the effects of small group learning in the form of pre-examination workshops on student performance in the final semester examination. The feedback from tutorial staff and students for the introductory management subject Management and Organisations (MGMT1136) at the UWA Business School involved in the innovative workshop program was generally positive. Quantitative and qualitative data were collected over a period of time in the form of a questionnaire survey of students who attended the workshops, telephone interviews of the tutors who conducted the workshops, and a focus group of volunteer students following the examination. Students found value in the small group learning environment and the booklet that was provided. An analysis of the students' grades in the current semester, compared to results from the previous 4 years was also performed. It was found that while the overall average grade was not significantly different, the number of high distinctions awarded was the second highest over the past 4 years, and the percentage of students failing was less compared to some previous semesters. It is noted that compulsory faculty scaling makes it difficult to determine if there was any significant improvement in students' grades. Overall, the workshops appeared to enhance students' examination preparation and their examination strategy.

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COMPETITION OF HARDWARE MANUFACTURERS, PROPRIETARY AND FREE SOFTWARE DEVELOPERS, AND PIRATES

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ABSTRACT

The aim of this paper is to explain the structure of the market of hardware, proprietary and free software, and illegal copies of proprietary software.

We propose a simple model of market interactions between hardware vendors, proprietary and free software developers, and pirates. We consider two hardware suppliers, Intel and AMD, both maximize profits forming a traditional duopoly, while proprietary software supplier, Microsoft, and the community of free software developers, Linux team, form a mixed duopoly, in which only the first party maximizes its profit. We assume that there are also pirates maximizing profits of selling illegal copies of proprietary software.

It is shown that the price of the most expensive product (Microsoft Windows operating system) at the Cournot equilibrium is approximately ten times greater than the price of the cheapest product (AMD CPU), illegal copies of proprietary software are two times cheaper than legal copies of the same software, the profit of Microsoft is approximately five times greater than the profit of Intel, and approximately twenty times greater than the profit of AMD, and integrated profit of pirates is 26% greater than the profit of Intel. The market share of Intel is two times greater than the market share of AMD, and 33% greater than the market share of Microsoft Windows; the market share of Microsoft Windows is 33% greater than the market share of Microsoft Office; the market shares of Microsoft Windows and Microsoft Office illegal copies are two times smaller than the market shares of corresponding legal copies.

INTRODUCTION

Over the recent years, an increasing large number of industries have evolved from vertical to horizontal integration, where some firms design and manufacture components which are assembled by other firms for the final customers. In these horizontal industries, firms are ‘complementors’ rather than customers, suppliers, or competitors. IT industry demonstrates the most striking examples of such an organization. There are suppliers of hardware components (processors, memory modules, motherboards, video cards, monitors, drives, etc.), suppliers of software (operating systems, office suites, etc.), and assemblers of computers providing the market with servers and workstations (usually with preinstalled software). For example, CPUs could be made by *Intel* or *AMD*, PCs could be assembled by *ASUS*, *Dell*, *Hewlett Packard* and others, on the same computer one of operating systems can be installed (e. g., *Microsoft Windows* or *Linux*), and various applications can work under different operating systems (e. g., *Microsoft Office* and *OpenOffice*).

The horizontal integration of IT industry is linked to setting up an open standard for *IBM PC* in 1980. As a result, there was a deep specialization of component manufacturers, assemblers, and software developers. In particular, the *IBM*’s decision of choosing *Intel* and *Microsoft* as manufacturers of CPUs and operating systems as the key PC components has led to *Intel* and *Microsoft* domination at the PC market for almost 30 years (in contrast to *IBM*, which has lost its strategic positions in this market).

According to Casadesus-Masanell, Nalebuff and Yoffie (2007a), in 2007 more than 80% of the PCs worldwide were shipped with an *Intel* CPU running *Microsoft Windows* operating system while there are a lot of producers of other PC components (motherboards, memory modules, drives, monitors, etc.) in this market.

As it was demonstrated by Yoffie, Casadesus-Masanell and Mattu (2004), the combined profit of *Intel* and *Microsoft* during most years in the 1990s exceeded the total profit of the entire world PC industry.

In 2004, for example, *Intel* and *Microsoft* earned over \$15B in net profits while the three largest assemblers (*Dell*, *HP* and *IBM*) made roughly just \$2.5B in profits from their PC operations. *IBM* alone lost over \$1B in PCs in 1998, and another \$1B between 2001 and 2004. Only *Dell* made material profits in the PC industry at that time. For more detailed information on market dynamics see Yoffie, Casadesus-Masanell and Mattu (2004).

This gives us the reason to assume *Microsoft* and *Intel* the key strategic players in the market of PCs that have a direct impact on the final product price (unlike the manufacturers of the other components).

Unlike the microprocessor market, where the main player (*Intel*), and its closest competitor (*AMD*), and other manufacturers seek to maximize their profits, the modern software market is characterized by the asymmetry of suppliers' interests, some of the software suppliers are maximizing their profits from the sale of licenses for their products (like *Microsoft*), while other software developers are distributing their products for free, often even with open source code.

For example, for-profit manufacturers had a monopoly in the server operating systems market 15 years ago, because the users did not trust non-commercial software that did not guarantee quality, reliability and security; now the commercial software product *Microsoft Windows* and its non-commercial competitor *Linux* each have approximately 40% of the server operating systems market. In contrast to *Microsoft*, the *Linux* developers community distributes this operating system for free and with open source code under *GNU GPL* license).

The competition in the software market essentially differs from a competition in the markets of traditional material goods (including CPUs) due to the special features of software as a good, first of all, due to the absence of rarity.

At the moment all the software users are choosing between the three options:

- to buy licenses and use the commercial proprietary software (e. g. *Microsoft Windows* as an operating system, *Microsoft Office* as an office suite, *Microsoft SQL Server* as a database server, *Microsoft Internet Information Server* as a web server, etc.);
- to use free or open source software (e. g. *Linux* as an operating system, *OpenOffice* as an office suite, *MySQL* as a database server, *Apache* as a web server, etc.);
- to use illegal (pirate) copies of proprietary software without buying licenses.

These three options correspond to the following three types of software market players:

- profit-maximizers (for example, *Microsoft*);
- non-for-profit players (for example, *Linux* team);
- pirates.

Correspondingly, the software developers try to determine the optimal way of income collecting:

- to sell the licenses for the use of their products;
- or to distribute the products for free and to collect incomes from sales of additional services.

As the real market shows, there is no unambiguous answer for the formulated questions. There are whole countries, using illegal copies of the proprietary software almost at 100%.

The number of non-commercial software users grows, and software developers that distribute their products with open source code receive stable incomes.

But the number of commercial software users remains high, allowing for-profit suppliers to receive a steady income from the sales of licenses.

Such a market structure requires new approaches to research methodology as well as to business development methodology.

The aim of this paper is to explain the structure of the market of hardware, proprietary and free software, and illegal copies of proprietary software.

We propose a model of market interactions between hardware vendors, proprietary and free software developers, and pirates. We consider two hardware suppliers, *Intel* and *AMD*, both maximize profits forming a traditional duopoly, while proprietary software supplier, *Microsoft*, and the community of free software developers, *Linux* team, form a mixed duopoly, in which only the first party maximizes its profit. We assume that there are also pirates maximizing profits of selling illegal copies of proprietary software. The model will be used to calculate the optimal pricing strategies and market shares for all the products.

LITERATURE REVIEW

A. Cournot in the seminal book (1838) has considered the first model in mathematical economy for interactions between monopolists producing complementary products (manufacturers of copper and zinc that are combined to make a brass as a composite product). The main result developed by Cournot using this model of complementary products suppliers' interaction is that suppliers will divide the profits equally non-depending on the relation of the components prices!

However, in the real IT market there is a competition both between hardware manufacturers (there are *Intel*-based and *AMD*-based servers and workstations in the market), and between of operating systems suppliers (*Microsoft Windows* and *Linux*).

While price competition between vertically differentiated goods as well price competition between complementors are each well understood in mathematical economics, but the combined case of competition between competing complements is investigated insufficiently and needs additional research.

McAfee, McMillan and Whinston (1989) studied game-theory model of packaging products into a bundle and obtained conditions when bundling is an optimal strategy for the suppliers. Developing this research Choi and Stefanadis (2001), and Nalebuff (2004) investigated a question on expediency of entering into the market with a composite product.

Brandenburger and Nalebuff (1996) have considered *Intel* and *Microsoft* as an example of players who co-operate and compete simultaneously, they even have introduced the term '*Co-Opetition*' for a designation of interaction of players of this kind.

Casadesus-Masanell and Yoffie (2006) suggested the game model for the situation of co-operation and competition of *Intel* and *Microsoft*, and as a result of research it has appeared that unlike Cournot model where both manufacturers divide the profits fifty-fifty, in this case the optimal strategy of Microsoft is to underprice in order to increase the client base, but Intel in reply to it should simply overprice and get the additional profit because an operating system is not on sale separately from a PC (see also the case study by Yoffie, Casadesus-Masanell and Mattu (2004).

Farrell and Katz (2000) have considered a situation, when the exclusive manufacturer of one component enters into the competitive market of the second component in order to reduce its price, and as a consequence, the price of a composite product. This model can be applied to *Intel* activities on motherboards manufacturing in addition to CPUs, but not to interactions of software and hardware manufacturers.

Cheng and Nahm (2007) have considered Stackelberg's strategy in a situation of cooperation and competition of exclusive manufacturers of two components, each of which can be used as a part of a composite product, and separately. In the IT market using of one component (hardware or software) without another is impossible, and in addition there is a competition between manufacturers of components.

Chen, Nalebuff and Nalebuff (2006) have investigated competitive interactions in markets with one-way essential complements (first product is essential to the use of the second product, but can be used without the second product). Chen, Nalebuff and Nalebuff have applied this model to study the market of operating systems and applied software. They have shown that it is favourable to operating systems developer to enter into the competitive market of applied software with a competing version of application and to sell it at zero price. As a result, the existing competitors in the applied software market will be compelled to join the monopoly.

One of the recent steps in the duopoly theory was to combine the classic market duopoly theory with the demand-side learning and to extend this approach to a dynamic situation where the objectives of players are mixed rather than symmetric. This step was done by Casadesus-Masanell and Ghemawat (2006) who have proposed a dynamic mixed duopoly model and applied this model to *Windows/Linux* competition dynamics.

Using the optimal control theory Casadesus-Masanell and Ghemawat (2006), and (with some extensions) Soloviev (2008, 2009) have obtained the conditions when *Linux* and *Windows* coexist in the market, and when one of the products is pushed out by another.

Casadesus-Masanell, Nalebuff and Yoffie (2008) have presented a model of interaction of two competing hardware suppliers (*Intel* and *AMD*) with the exclusive operating systems manufacturer (*Microsoft*). This work represents, as a matter of fact, the first research of a competing complements. This paper considers competition between suppliers of complementing components (*Intel* and *Microsoft*), and between competing suppliers of similar components (*Intel* and *AMD*).

Soloviev (2009a, 2009b, 2009d) has extended the Casadesus-Masanell, Nalebuff and Yoffie (2008) model to interaction of two competing hardware suppliers (*Intel* and *AMD*) with two competing operational systems manufacturers, *Microsoft* corporation (the developer of proprietary *Windows* operating system), and non-commercial *Linux* operating system developers community. Soloviev, Iliina and Samoyavcheva (2009a, 2009b) have considered a Cournot situation in this model, when each of the profit-maximizing suppliers sets the price based on available market information on other players' products prices in the previous time moment, and assuming the cross-price elasticities to zero. At the Cournot equilibrium, an *Intel*-based PC running *Windows* is 5 times more expensive than *AMD*-based PC running *Linux*; an *Intel* CPU costs 2 times more than *AMD* processor; *Windows* license is 1,5 times more expensive than *Intel* processor; the profit of *Intel* is 4 times greater than the profit of *AMD*, and *Microsoft*'s profit is 12,5% greater than *Intel*'s profit.

In this paper we want to take software piracy into account.

ASSUMPTIONS

Let's discuss the basic assumptions of hardware and software suppliers' interactions model.

1. The bundle of hardware (a PC) with operating system and office suite is selling in the market. There are *Intel*-based and *AMD*-based PCs in the market, each of which can be selling with legal or illegal copy of *Windows*, or copy of *Linux*. Legal copies of *Windows* operating system are distributing by *Microsoft* corporation on a commercial basis by selling licenses, while *Linux* operating system is distributing by *Linux* developers community freely and free of charge. The user can install legal or illegal copy of *Microsoft Office*, or copy of free *OpenOffice* product on *Windows*-running PC, and he or she can install only *OpenOffice* product on *Linux*-running PC. There is integrated pirating agent at the market who sells illegal copies of proprietary *Microsoft Windows* operating system and *Microsoft Office* suite.

Thus, the user selects one of 14 products:

- *Intel* / *AMD*-based PC running legal *Microsoft Windows* / illegal *Microsoft Windows* with legal *Microsoft Office* / illegal *Microsoft Office* / *OpenOffice*;
- *Intel* / *AMD*-based PC running *Linux* with *OpenOffice*.

2. Nowadays, the *Windows* / *Linux* competition, especially in the netbooks segment, is growing because the *Windows* license costs more than 10% of the final product price for many models. Although the *Windows* license price and the price of *Windows* illegal copy are positive, and *Linux* is distributed freely, three products co-exist at the market. It means that a consumer values legal *Windows* greater than illegal *Windows*, and illegal *Windows* greater than *Linux*. *Intel*-based PCs occupy the largest market share, so a consumer values *Intel*-based PC greater than *AMD*-based PC. It is supposed also that the difference in consumer value of different hardware is less, than a difference in consumer value of identical hardware with different operating systems.

3. The demand functions for the combined products are linear, and the user will buy the bundled product (a PC with an operating system) if and only if the consumer value of this product for this user exceeds its price.

4. The hardware and software prices are made up of fixed costs, manufacturer's profit, variable costs and technical support costs. The hardware manufacturer needs to build a hi-tech plant which costs several billion dollars in order to produce CPUs, but then the production of a CPU costs less than 1 dollar. The software developer needs some investment to develop the product, but after that it does not cost too much to burn a CD, and it costs almost nothing to release the product in the Internet. So, fixed costs are essentially greater for hardware manufacturers than for software developers, and variable costs are close to zero. Technical support costs for hardware and software manufacturers are approximately the same. Pirates have no fixed costs and technical support costs, and their variable costs are close to zero. Products are offered in the market during quite a long time without essential changes of functionality. In other words, manufacturers incur fixed costs just once, then collect them back by manufacturing and selling products, then start to receive net profits. Therefore it is possible to assume that *Intel*, *AMD*, *Microsoft*, and pirates make their pricing decisions based on the aim of maximization of instant profits, i. e. profits calculated taking into account variable, but not fixed costs.

5. Hardware and software manufacturers do not conspire and do not co-operate in other ways. Each manufacturer makes the pricing decisions based on available market information on the prices of other players' products (i. e., Cournot situation is considered).

6. When making pricing decisions each manufacturer considers that other players do not react on the change of the price by this manufacturer, i.e. cross price elasticities are equal to zero.

7. The prices of all the products essentially exceed variable costs for these products manufacturing.

8. PC assemblers form the market of a perfect competition, and could not affect the price of the bundled product (a PC with an operating system), unlike manufacturers of CPUs and the proprietary operating system. We assume that illegal copies of *Windows* are selling by an integrated economic agent. It is assumed that the bundled product price is the sum of the CPU price and the operating system price.

Let's use the following designations: q_{\max} — PC market capacity; P_{A+L+O} , P_{A+W+M} , P_{A+W+O} , P_{A+W+PO} , P_{A+PW+M} , P_{A+PW+O} , $P_{A+PW+PO}$, P_{I+L+O} , P_{I+W+M} , P_{I+W+O} , P_{I+W+PO} , P_{I+PW+M} , P_{I+PW+O} and $P_{I+PW+PO}$ — maximal possible prices for *Intel* / *AMD*-based PC running legal / illegal *Microsoft Windows* with legal / illegal *Microsoft Office* or *OpenOffice*; p_I and p_A — prices for *Intel* and *AMD* CPUs set by manufacturers; p_W and p_M — *Microsoft Windows* and *Microsoft Office* license prices set by *Microsoft*; p_{PW} and p_{PM} — prices for illegal copies of *Microsoft Windows* and *Microsoft Office* set by the integrated pirating agent; q_{A+L+O} , q_{A+W+M} , q_{A+W+O} , q_{A+W+PO} , q_{A+PW+M} , q_{A+PW+O} , $q_{A+PW+PO}$, q_{I+L+O} , q_{I+W+M} , q_{I+W+O} , q_{I+W+PO} , q_{I+PW+M} , q_{I+PW+O} and $q_{I+PW+PO}$ — demand on the products; f_I , f_A and f_M — fixed costs of *Intel*, *AMD*, *Microsoft*; v_I , v_A , v_W , v_M , v_{PW} and v_{PO} — variable costs on manufacturing *Intel* and *AMD* CPUs, legal / illegal copies of *Microsoft Windows* and *Microsoft Office*; π_I , π_A , π_M and π_p — profits of *Intel*, *AMD*, *Microsoft* and the integrated pirating agent.

MODEL

In the formulated assumptions the model of hardware and software manufacturers' interaction looks as follows

(1)

$$\begin{cases}
q_j = q_{\max}(1 - p/P_j), \\
j \in \{A+L+O, A+W+M, A+W+O, A+W+PO, A+PW+M, A+PW+O, A+PW+PO, \\
I+L+O, I+W+M, I+W+O, I+W+PO, I+PW+M, I+PW+O, I+PW+PO\}; \\
q_A = q_{A+L+O} + q_{A+PW+O} + q_{A+PW+PO} + q_{A+PW+M} + q_{A+W+O} + q_{A+W+PO} + q_{A+W+M}, \\
q_I = q_{I+L+O} + q_{I+PW+O} + q_{I+PW+PO} + q_{I+PW+M} + q_{I+W+O} + q_{I+W+PO} + q_{I+W+M}; \quad q_L = q_{I+L+O} + q_{A+L+O}, \\
q_W = q_{I+W+O} + q_{I+W+PO} + q_{I+W+M} + q_{A+W+O} + q_{A+W+PO} + q_{A+W+M}, \quad q_M = q_{I+PW+M} + q_{I+W+M} + q_{A+PW+M} + q_{A+W+M}, \\
q_{PW} = q_{I+PW+O} + q_{I+PW+PO} + q_{I+PW+M} + q_{A+PW+O} + q_{A+PW+PO} + q_{A+PW+M}; \\
q_{PO} = q_{I+PW+PO} + q_{I+W+PO} + q_{A+PW+PO} + q_{A+W+PO}, \quad q_O = q_{I+L+O} + q_{I+PW+O} + q_{I+W+O} + q_{A+L+O} + q_{A+PW+O} + q_{A+W+O}, \\
\pi_I = q_I(p_I - v_I) - f_I \rightarrow \max, \quad \pi_A = q_A(p_A - v_A) - f_A \rightarrow \max, \\
\pi_M = q_M(p_M - v_M) - f_M \rightarrow \max, \quad \pi_P = q_{PW}(p_{PW} - v_{PW}) + q_{PO}(p_{PO} - v_{PO}) \rightarrow \max.
\end{cases}$$

The most simple case is when all the P_j are equal to some constant P and all the variable costs are equal to zero. In this case we have

$$\begin{cases}
q_{I+W+M} = q_{\max}(1 - (p_I + p_W + p_M)/P), \\
q_{A+W+M} = q_{\max}(1 - (p_A + p_W + p_M)/P) - q_{\max}(1 - (p_I + p_W + p_M)/P) = q_{\max}(p_I - p_A)/P, \\
q_{I+W+PO} = q_{\max}(1 - (p_I + p_W + p_{PO})/P) - q_{\max}(1 - (p_A + p_W + p_M)/P) = q_{\max}(p_A + p_M - p_I - p_{PO})/P, \\
q_{A+W+PO} = q_{\max}(1 - (p_A + p_W + p_{PO})/P) - q_{\max}(1 - (p_I + p_W + p_{PO})/P) = q_{\max}(p_I - p_A)/P, \\
q_{I+W+O} = q_{\max}(1 - (p_I + p_W)/P) - q_{\max}(1 - (p_A + p_W + p_{PO})/P) = q_{\max}(p_A + p_{PO} - p_I)/P, \\
q_{A+W+O} = q_{\max}(1 - (p_A + p_W)/P) - q_{\max}(1 - (p_I + p_W)/P) = q_{\max}(p_I - p_A)/P, \\
q_{I+PW+M} = q_{\max}(1 - (p_I + p_{PW} + p_M)/P) - q_{\max}(1 - (p_A + p_W)/P) = q_{\max}(p_A + p_W - p_I - p_{PW} - p_M)/P, \\
q_{A+PW+M} = q_{\max}(1 - (p_A + p_{PW} + p_M)/P) - q_{\max}(1 - (p_I + p_{PW} + p_M)/P) = q_{\max}(p_I - p_A)/P, \\
q_{I+PW+PO} = q_{\max}(1 - (p_I + p_{PW} + p_{PO})/P) - q_{\max}(1 - (p_A + p_{PW} + p_M)/P) = q_{\max}(p_A + p_M - p_I - p_{PO})/P, \\
q_{A+PW+PO} = q_{\max}(1 - (p_A + p_{PW} + p_{PO})/P) - q_{\max}(1 - (p_I + p_{PW} + p_{PO})/P) = q_{\max}(p_I - p_A)/P, \\
q_{I+PW+O} = q_{\max}(1 - (p_I + p_{PW})/P) - q_{\max}(1 - (p_A + p_{PW} + p_{PO})/P) = q_{\max}(p_A + p_{PO} - p_I)/P, \\
q_{A+PW+O} = q_{\max}(1 - (p_A + p_{PW})/P) - q_{\max}(1 - (p_I + p_{PW})/P) = q_{\max}(p_I - p_A)/P, \\
q_{I+L+O} = q_{\max}(1 - p_I/P) - q_{\max}(1 - (p_A + p_{PW})/P) = q_{\max}(p_A + p_{PW} - p_I)/P, \\
q_{A+L+O} = q_{\max}(1 - p_A/P) - q_{\max}(1 - p_I/P) = q_{\max}(p_I - p_A)/P, \\
q_I = q_{\max}(P + 6p_A - 7p_I)/P, \quad q_A = 7q_{\max}(p_I - p_A)/P, \quad q_W = q_{\max}(P - p_A - p_W)/P, \\
q_M = q_{\max}(P - 2p_M - p_A - p_{PW})/P, \quad q_{PW} = q_{\max}(p_W - p_{PW})/P, \quad q_{PO} = 2q_{\max}(p_M - p_{PO})/P;
\end{cases}$$

and

$$\begin{cases}
\pi_I = q_{\max}(P + 6p_A - 7p_I)p_I/P - f_I \rightarrow \max, \quad \pi_A = 7q_{\max}(p_I - p_A)p_A/P - f_A \rightarrow \max, \\
\pi_M = q_{\max}((P - p_A - p_W)p_W + (P - 2p_M - p_A - p_{PW})p_M)/P - f_M \rightarrow \max, \\
\pi_P = q_{\max}((p_W - p_{PW})p_{PW} + 2q_{\max}(p_M - p_{PO})p_{PO})/P \rightarrow \max.
\end{cases}$$

INVESTIGATION

We have the following first-order conditions (taking into account that we consider Cournot situation where manufacturer makes the pricing decisions assuming the prices of other players' products are constant, and all cross price elasticities are equal to zero):

$$\begin{aligned}
(4) \quad & \partial \pi_I / \partial p_I = 0 \Leftrightarrow P + 6p_A - 14p_I = 0, \quad \partial \pi_A / \partial p_A = 0 \Leftrightarrow p_I - 2p_A = 0, \\
(5) \quad & \begin{cases} \partial \pi_M / \partial p_W = 0, \\ \partial \pi_M / \partial p_M = 0 \end{cases} \Leftrightarrow \begin{cases} P - p_A - 2p_W = 0, \\ P - 4p_M - p_A - p_{PW} = 0, \end{cases} \quad \begin{cases} \partial \pi_P / \partial p_{PW} = 0, \\ \partial \pi_P / \partial p_{PO} = 0 \end{cases} \Leftrightarrow \begin{cases} p_W - 2p_{PW} = 0, \\ p_M - 2p_{PO} = 0. \end{cases}
\end{aligned}$$

Now we can find the optimal prices, demand and profits:

$$\begin{aligned}
(6) \quad & p_I^* = \frac{64P}{704}, \quad p_A^* = \frac{32P}{704}, \quad p_W^* = \frac{336P}{704}, \quad p_{PW}^* = \frac{168P}{704}, \quad p_M^* = \frac{126P}{704}, \quad p_{PO}^* = \frac{63P}{704}, \\
(7) \quad & q_I^* = \frac{448q_{\max}}{704}, \quad q_A^* = \frac{224q_{\max}}{704}, \quad q_W^* = \frac{336q_{\max}}{704}, \quad q_{PW}^* = \frac{168q_{\max}}{704}, \quad q_M^* = \frac{252q_{\max}}{704}, \quad q_{PO}^* = \frac{126q_{\max}}{704}, \\
(8) \quad & \pi_I^* = \frac{28672Pq_{\max}}{704^2} - f_I, \quad \pi_A^* = \frac{7168Pq_{\max}}{704^2} - f_A, \quad \pi_M^* = \frac{144648Pq_{\max}}{704^2} - f_M, \quad \pi_P^* = \frac{36162Pq_{\max}}{704^2}.
\end{aligned}$$

RESULTS AND DISCUSSION

We can see that the price of the most expensive product (*Microsoft Windows* operating system) at the Cournot equilibrium is approximately ten times greater than the price of the cheapest product (*AMD CPU*), illegal copies of proprietary software are two times cheaper than legal copies of the same software, the profit of *Microsoft* is approximately five times greater than the profit of *Intel*, and approximately twenty times greater than the profit of *AMD*, and integrated profit of pirates is 26% greater than the profit of *Intel*. The market share of *Intel* is two times greater than the market share of *AMD*, and 33% greater than the market share of *Microsoft Windows*; the market share of *Microsoft Windows* is 33% greater than the market share of *Microsoft Office*; the market shares of *Microsoft Windows* and *Microsoft Office* illegal copies are two times smaller than the market shares of corresponding legal copies.

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INNOVATIVE STRATEGY OF AIRBUS AND BOEING: THE CASE OF CHINA

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ABSTRACT

Airbus was the first entrant into the Chinese market and followed a strategy of cooperation; whereas Boeing opted for a late-entrant strategy. Both the first and the late-entrant strategies had their pros and cons, especially due to the risk of technology transfer. On one hand, companies preferred protecting their innovations and technology through IPR laws, but faced a huge risk in China where IPR laws were not yet well established. Also, the Chinese State dealt with foreign direct investments (FDIs) to maximize the knowledge and transfer of technology to its State Owned Enterprises (SOEs) for the betterment of its domestic labor. On the other hand, China, as a market, could not be ignored due to its opportunities and growth potential. The case article highlights and provides a moot point where two seemingly divergent strategies were followed by two leading aircraft manufacturers in the past decade.

INTRODUCTION

Gustav Humbert, ex-CEO of Airbus, was once proud of his position. Under his leadership, Airbus performed well. It was even more satisfying when he considered that Airbus was a consortium led by France, the United Kingdom, Germany and even Spain. Barely six decades before, the countries were involved in World War II. Now the European group was one of only two global players in the industry. He thought of the impressive growth history of Airbus. During early 1970s, the European aircraft industry represented only 10 percent of the global aircraft market that was primarily controlled by American companies such as Boeing and McDonnell Douglas (MDD). And in just three decades, the leaders of the European Union could collaborate and cooperate in this highly complex technological field.

But that was history. Today, the A380 was another challenge for which he had to resign, ushering in Chrisitan Streiff, the new head of Airbus. On his recruitment to this coveted seat, at the Farnborough International Air Show Streiff spoke bombastically of doing “*a vertical take-off with full thrust.*” China was the key strategic marketplace for both Airbus and Boeing. China’s GDP had grown at more than eight percent over the past decade and showed no signs of stopping. Regarding airspace and aircraft industry, China was expected to become the world’s largest aviation market after the United States and hence would become the next battlefield. The weapons were already chosen. Boeing, after its merger with MDD, was the undisputed challenger to Airbus with its 787s and the new 747s. Airbus, though recently experiencing some hitches, had its A380s and A350s. Their business models were as different as their aircraft. Airbus focused on a hub-to-hub strategy, whereas Boeing favoured a point-to-point strategy. Their business strategy regarding China also was entirely different. Airbus favoured an early entrant strategy whereas Boeing favoured a late entrant strategy. Both had their strategists racking their brains to develop a strategy for entering China...

THE HISTORY OF AIRBUS

An European Company built with American investments

After World War II (1939-1945), Europe needed to be rebuilt. Germany was destroyed and devastated after three years of intensive war. France was in a difficult economic situation because of the German occupation. The United Kingdom had to switch from a war economy to a peace economy. In contrast, the

United States ended the war as the strongest economy in the world in the fields of technological knowledge, investment capacities and production capacities. By the end of the war, the American economy had 52 percent of the worldwide industrial goods production and almost half of world's gold reserves. But from another angle, the rise of the erstwhile USSR was giving rise to burning geopolitical events that would become the Cold War by the late forties.

In this context, western European countries began to cooperate in some key sectors. They wanted to avoid any transnational competition and to cooperate in earnest to rebuild Europe. The American economic support made this "dream" possible with the Marshall Plan of 1947. Also, in 1951, the European Cooperation on Steel and Coal emphasized the convergence of political and economical interests in this area.

In 1957, J. Monnet and Schumann, the European founders of WHAT?, managed to make their dreams come true with the treaty of Rome leading to the first European Union with 6 members (West Germany, France, Italy, Belgium, Luxembourg and Netherlands). This was the beginning of the initiation of many industrial co-operations; one of the important ones involved the aircraft industry. It's often been said that Airbus was a European company built with American investments.

Consolidation of clusters within the aircraft industry

In the mid-1960s, there were almost 20 different aircraft programs under various stages of development within the European nations. The best engineers were proudly trying to rebuild their national industry with their own national technology. Due to an atmosphere of war for more than 50 years on the continent, national engineers had secretly developed diverse technologies for the aircraft industry that were incompatible with each other.

During this time, the movement of having a single European company for the aircraft industry gained momentum. Funding was an issue for this European company but there was a will, and so there was a way. The challenging situation led the governments of the European countries to come together to underlie the necessity of a European cooperation. A project was launched to build a 300-seat aircraft. The tasks were divided. 37.5 percent for Hawker of UK, 37.5 percent for Sud-Aviation of France and 25 percent for Arge Airbus. The engines were to be constructed by the British Rolls-Royce (75 percent), the French Snecma (12.5 percent) and the German Man (12.5 percent). This kind of division of labor was necessary to cement a co-operation between the different stakeholders and the different nations. Regarding political stakes, the balance was respected between the European powers, the projects were subsequently merged and Airbus was born.

Strategy of Airbus to become a world leader

During the early stages, there were difficulties with respect to funding and cooperation between the companies and the countries. But what saved Airbus was the will of the partners to continue and pitch in funds from the companies that were involved. In that sense, Airbus was not completely a green field operation and began operating with some successes. The English presence, which was necessary at the beginning, always remained a sensitive issue. The British never accepted to "dilute" (as they said) neither their knowledge nor their influence in the group. They did not agree to be part of the GIE Airbus that was founded in 1969 and they let Sud Aviation and Deutsch Airbus manage and control the company. British suppliers became suppliers or stakeholders but they were not part of the new top management. Due to this history, Airbus, which became a public company in 1999, was jointly owned by EADS, which was the European defense and military giant, with a 80 percent stake and by BAE Systems (British Aerospace System), which owned the rest. Airbus founders were stakeholders of EADS and thus controlled Airbus. Lagardere of France and the French State represented the French interests, Daimler represented the German interest, while CASA represented the Spanish interest.

Within 50 years of its inception, Airbus became the leader, overtaking its arch rival Boeing. Airbus and Boeing together shared about 50 percent of the world market in demand while Airbus had a slightly better advantage over Boeing on deliveries. Each company had its heritage and its own natural geographic market. For instance, the American political influence in Japan had led to a skewed ratio of 7:3 in favor of Boeing. While in European markets, Airbus clearly had the advantage. These positions evolved year after year, but the real differences in numbers were coming from new developing and emerging markets.

In 2006, BAE decided to sell its shares to EADS and the entire power structure in the company was to change. It was envisioned that the public part would increase with each founding member decreasing its participation. The balance between French and German stakeholders had to remain equal for political reasons.

Airbus was headquartered in Toulouse, France, and in Frankfurt, Germany because the two main plants were historically present in these two regions. It was a global enterprise of about 53,000 employees, with fully-owned subsidiaries in the United States, China and Japan; spare parts centres in Hamburg, Frankfurt, Washington, Beijing, and Singapore; training centres in Toulouse, Miami, Hamburg and Beijing and 130 field service offices around the world. Airbus also relied on industrial cooperation and partnerships with major companies all over the world, and a network of some 1,500 suppliers in 30 countries. Gustav Humbert was named CEO in 2004 and remained in charge in 2005. This was a symbolic gesture of high reputation as for the first time a German became CEO of Airbus. The counterpart was the nomination of Noël Forgeard, French and former CEO of Airbus, as co-CEO of EADS.

In less than 40 years of existence, Airbus had set standards by the quality of its aircrafts. Its technological advances in avionics, use of composites, innovations in design and the continual promotion of aircraft safety had placed Airbus at the forefront of a fiercely competitive duopolistic sector. The “Airbus Spirit” was that of teamwork between nations and cultures. In 2005, Airbus booked 1,111 new gross orders, delivered a total of 378 aircrafts totaling revenues of \$28.4 billion (€ 22.3bn) with customers from 210 countries. Airbus employed more than 55,000 employees (supported 140,000 jobs in the US), of 80 nationalities working in 160 offices in 20 languages. It had about 1,500 suppliers and industrial partners spanning 30 countries.

THE HISTORY OF BOEING

Boeing “enjoyed” WWII and its consequences

Boeing was founded in 1916 in Puget Sound, Washington. After World War II, the American economy was flourishing and almost every industry was benefiting from a kind of golden age. The aircraft industry had boomed during the war as it supported the war against the Axis. With contracts from the government to support the war, some aircraft companies emerged as leaders. Three of the more prominent ones were Boeing, Lockheed and McDonnell (MDD). During the war, German engineers had discovered and developed to near perfection the turbo reactor, which subsequently became the key to profitably develop long range commercial lines.

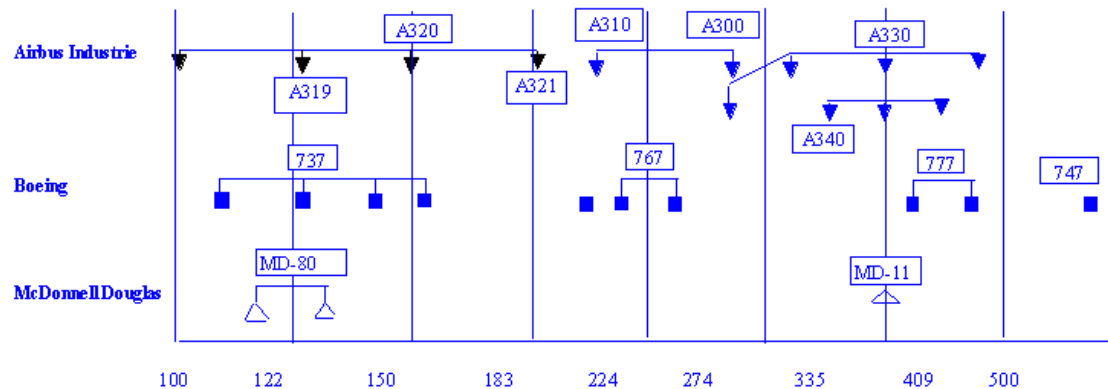
After the war, this technology was transferred from the ashes of the Reich to the United Kingdom and the United States by German scientists, like the famous von Braun who decided to work for the Allies. The United States took this opportunity to build a successful plan for the aviation and space sector, which was possible because the internal market was also the biggest market available for airliners and American companies such as Boeing, MDD or Lockheed could therefore strengthen their business with national clients even before contemplating to start business across borders (Bergsten, 2001).

Boeing and the other American companies catapulted a European new entrant to become a leader

In the 1970s, Airbus, the new competitor from Europe, emerged, progressively conquering markets, competing globally with the American giants and ultimately displacing Boeing from its *numero uno* position. Airbus was not taken seriously at the beginning by Boeing and its strategy was underestimated. Airbus took this opportunity and created some new clusters without any real reaction from its competitors in the US. For example, it created the concept of “*aircraft family*” with its A300 or the A320 series. Since the Americans took this strategy with a pinch of salt, Airbus had no competitors in the existing range of aircraft products when they attacked the market with their new innovative offerings. American companies were competing on cost leadership and hence were not really looking forward to innovate. To fight this impending threat of an innovative product portfolio, Boeing undertook a series of strategic mergers and acquisitions to broaden its own portfolio that included acquiring McDonnell Douglas, the space and defense business of Rockwell International., and Hughes Space & Communications, among others. Moreover, this lack of anticipation led to a gap between the expectations of airliners and what was available in the market. Progressively the market share of Airbus increased and American companies understood they had a real competitor with a new range of products. Boeing

started to re-visit its strategy and tried to strengthen its offers which led to clear competition on almost every cluster (see **Figure 1** for more details).

Figure 1: Direct competition between Airbus, Boeing and McDonnell Douglas



After 90 years of existence, the American giant was positioned as a broad, balanced and global enterprise aiming at defining the future of aerospace (Lee, 2006). The commercial part of the group competed with Airbus but it only represented 40 percent of its income, whereas 60 percent was generated by the “Integrated Defense Systems,” the “Boeing Capital Corporation” and the “Connection by Boeing” subsidiaries of the group. In 2005, Boeing’s revenue was \$54.8 billion with customers in 145 countries (\$22.5 billion from the commercial airplanes). International sales were more than 30 percent and 70 percent from sales of commercial airplane (by value). Boeing employed more than 153,300 employees in 48 U.S. states and 67 countries. It had about 6,450 suppliers in more than 100 countries.

AIRBUS VS BOEING

With the advent of Airbus’ A300 series, Airbus had cleverly managed to take Boeing by surprise. Boeing did not have any competitive offer in the A300 cluster, and Airbus has changed the rules of the game before Boeing could react. This cluster was not controlled well by Boeing. Airbus’ innovation with flexibility of products to serve short, medium and extended-range routes, the A310 and A300-600 series form Airbus’ wide body twin family provided operators with a combination of versatility, economy and reliability. These aircrafts were immensely profitable in freighter versions, either new or as converted second-hand aircraft, with more than 260 already in operation as freighters or on order. This adaptability had been the key in sustaining the high residual value of the aircraft and in boosting Airbus’ share of the wide body, mid-size freighter market to over 50 percent.

With the A300 assault from Airbus, Boeing tried to react. When the A320 arrived, Boeing modernized its 737 and the competition continued with a new 737 against each aircraft of the A320 family. Boeing was not the trend setter at that time and because of the time necessary to launch a plane, Airbus could control every new market space as it was ahead in its planning by at least 5 years.

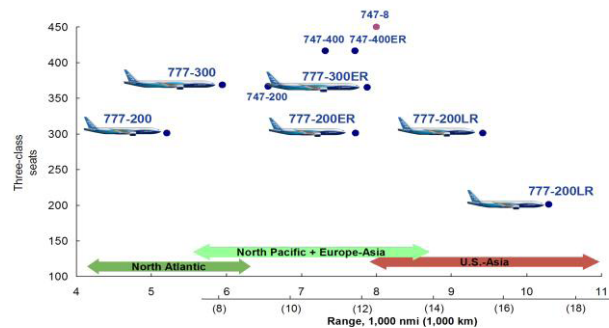
Airbus also attacked another empty cluster with its A330-A340 family. These aircrafts were complementary to the 747 that were equipped for long haul. The A330-A340 family were better designed, more modern and could capture a large market share at the cost of Boeing’s 747. Boeing retaliated with its 777. It was a winner for Boeing and a disaster for Airbus. It was the last resort that Boeing could come up with to counter the continuous onslaught by Airbus. The 777 was a huge commercial success and soon became the main cash cow of Boeing. Each 777 was sold at around \$220 million (against \$60 million for a 737) and Boeing sold 154 in 2005 against Airbus’ 12 A340 that year. The 777 family had six different models and provided flexibility both in capacity and in range (see **Figure 2** for details about the 777 family).

With the evolution of technology, competition between Boeing and Airbus extended to a new cluster, the 787 family of Boeing. Boeing came head on with this model and challenged the A350 family of Airbus. Boeing had in the meantime greatly improved its offer with innovations in its design. Boeing launched its 737 (737-8) and the 747 (747-8) family with new specifications that included modern elements and a reduced usage

of steel and aluminium. These new specifications were supposed to reduce fuel consumption/passenger by about 20 percent (the main criteria for airliners today due to the meteoric rise in cost of fuel). It was reported that Boeing had mastered the state of the art in this technological field on its 787 family offerings. It was a blow for Airbus as its new A350 was not as not as sophisticated as Boeing in its design and fuel efficiency.

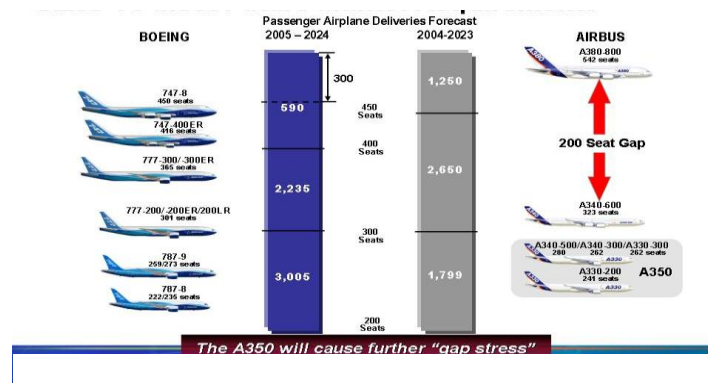
Figure 2: Reasons for success of the 777

The 777 Family Offers Flexibility in Capacity and Range



The range of products from Airbus and Boeing were success stories of innovation but there were three major concerns. The first was a 200-seat gap between the A340-600 and the A380 (which had been criticized for its fuel consumption). In this gap, Boeing proposed three airplanes namely the 777-300, the 747 and the new 747-800 (see **Figure 3**). Second, the choice of the “hub to hub” strategy championed by Airbus (with its A380 model) had been challenged by the “point to point” strategy that was championed by Boeing with its 787. And the figures tend to show that Airbus would have to convince airliners since in 2005, 235 planes of the 787 family were ordered, whereas only 20 were ordered for the A380 model. The third concern was airliners had to equate the A350 Vs 787 and the biggest question would be whether A380 would reach its break-even point of 300 units.

Figure 3: Perspectives for Boeing and Airbus in the battle 787 vs A 350



THE CHINESE CHALLENGE

According to Airbus, the Chinese market would need about 1,790 aircraft by 2022, of all sizes and capabilities. Domestic traffic was expected to continue to account for the largest portion of traffic in beginning of the 21st century.

The Chinese Market was also a challenge regarding the influence and role of the State in decision making in businesses. Even with deregulation and liberalization, some practices remained and both Boeing and Airbus knew that, first, the State controlled the airlines and hence their decisions involved the State; and second, the Chinese state tended to favor technology transfers and not just transfers categorized as low value added activities.

Airbus had a competitive advantage in this market but with only one particular cluster -- the growing international traffic favoring the “hub to hub” strategy, bolstered by the Olympics in Beijing and the World Expo in Shanghai in 2008. The flow of international delegates would be partly accommodated by airlines flying the A380s into China. The Olympics would give a stimulus to aviation development in China and Airbus believed the 555-seat A380 was the most ideal vehicle to transport tens of thousands of athletes and sports fans to Beijing. A380, its flagship of the 21st century, was supposed to make its important contribution to the fast development of the aviation market in China. The rapidly growing freight operations out of China were also stimulating much interest in the A380F (cargo version) by airlines both in China and overseas. For the domestic sector, the largest demand was in the 100- to 200-seat category like the A320 family or the 737.

Although the A380 cluster had no immediate threat from Boeing, there was a major battle that loomed on another cluster. Trunk routes between cities such as Beijing, Shanghai and Guangzhou required optimized medium range twin aisle aircrafts like the A330 or the new Boeing 787 Dreamliner. The competition was getting tougher, which was quite clear in Noël Forgeard’s following statement:

“Airbus is optimistic about this market segment, which was originally started 30 years ago with the early versions of the A300. They continue to review the best way to serve the airline’s needs in this area, and their conclusion is that the A350 and the A330-200 remain the optimum combination to meet the very different range requirements of the medium capacity sector. Both aircraft are in extensive use in Asia, including China, and frequent re-orders by operators confirm their ‘best in class’ status. On a worldwide basis, the A350 and A330-200 now dominate a market, which had previously been served with competitor products. Despite much current focus on this middle market segment by a potential competing project, Airbus is highly confident that the economics of the A330s and A350s will remain unchallenged.”

Boeing’s assumption to beat Airbus was its focus on cost leadership which the 787 could provide vis-à-vis A330-200. It was more so due to escalating prices of crude. Improvement in efficiency would come in the way the 787 had been designed and built. Boeing had announced that as much as 50 percent of the primary structure -- including the fuselage and wing -- on the 787 would be made of composite materials, the lightest and most corrosion resisted materials that would require less maintenance. It had been designed with General Electric with synergies between aerodynamics and engines that were designed by Rolls Royce. It was expected that advances in engine technology would contribute as much as 8 percent of the increased efficiency of the new airplane, representing a nearly two-generation jump in technology for the middle of the market. New technologies and processes are in development to help Boeing and its supplier partners achieve unprecedented levels of performance at every phase of the program. For example, by manufacturing a one-piece fuselage section, it eliminated 1,500 aluminium sheets and 40,000 - 50,000 fasteners. Boeing named the 787 *the Dreamliner*.

From a technical point of view, it seemed that the 787 was more complete than the A350, which critics commented was actually an upgrade of the A330. But the battle was not only a technical one.

Airbus’ way in China

Airbus was committed to the development of aviation in China. As the rivalry intensified, Airbus tried to differentiate by providing additional services. In China, the company not only sold aircrafts, but also made efforts to provide the best training and support services. The CASC/Airbus Customer Services Training and Support Center, which represented an \$80 million investment by Airbus, was fully operational in Beijing.

Airbus had also designated customer support managers and representatives for all operators. They regularly visited the airlines to ensure the perfect performance of Airbus aircraft and provide operational analysis. The customer services department provided an onsite technical support to airline operation in 20 Chinese cities, including Beijing, Chengdu, Fuzhou, Gansu, Guangzhou, Nanjing, Qingdao, Shanghai, Shenyang, Shenzhen and Xi’an. In addition, Airbus regularly held seminars on flight operation, maintenance, material and management and other fields with CAAC and airlines with the goal of sharing experiences and

providing technical expertise. In order to improve safety and management standards, Airbus developed a number of state-of-the-art software tools, such as Less Paper Cockpit (LPC), Airbus On-line Services (AOLS), Fight Operation Monitoring (FOM) and Airman. Some of these systems had been widely introduced in the Chinese airlines.

Airbus started cooperating with Chinese authorities at different levels. Cooperation with China was primarily carried out on three levels, first, with regulators such as General Administration of Aviation of China (CAAC); second, with airlines; and third, with aviation industry manufacturers. Airbus saw opportunities to further develop its industrial cooperation with the Chinese industry and to integrate new suppliers in its network. Four Chinese manufacturers in Shenyang, Xi'an, Chengdu and Guizhou were already involved in manufacturing parts, such as wing components, emergency-exit doors and maintenance tools for Airbus aircraft.

Airbus also increased its industrial procurement from China. Airbus' procurement from China was supposed to reach an annual volume of \$60 million by 2007 and double to \$120 million by 2010, including a substantial amount of A380 work.

On April 21, 2005, Airbus and China Aviation Industry Corporation II (AVIC II) agreed to set up an engineering center in the form of a joint venture in Beijing. About two months later, Airbus and China Aviation Industry Corporation I (AVIC I) signed an agreement at the 46th International Paris Air Show in Le Bourget for AVIC I to become a new partner of Airbus' Engineering Centre in China. The Airbus Engineering Centre was to be located in the Tianzhu Airport Industrial Zone, adjacent to the offices of Airbus China. The facility would perform aircraft specific design work for the A350 program at the beginning, then later ramp up to increase engineers for the Engineering Centre to 50 by the end of 2005 and to 200 engineers by 2008. Gustav Humbert explained in a committee:

"The setting up of the centre further enhanced and developed a close relationship between Airbus and the Chinese aerospace industry, with a view to China becoming a full risk-sharing partner in a future Airbus program for new generation aircrafts. A risk-sharing partner takes complete responsibility for a part of a program, from design to manufacturing, including the corresponding investment and profit sharing."

In 2005, more than 3,880 Airbus aircraft were in operation with 240 operators worldwide. Half of Airbus' worldwide fleet had components produced in China. Airbus was looking forward to carrying out more projects with Chinese aviation industry partners.

Airbus not only worked closely with Chinese aviation manufacturers, but also encouraged other foreign companies to get involved in industrial cooperation with China. For instance, the Jinling Shipyard had built a roll-on and roll-off vessel for the transportation of the A380 components. The ship owner was F.R.E.T/CETAM. China's involvement in the A380 program marked a new significant milestone in the cooperation between Airbus and China

Boeing's way in China

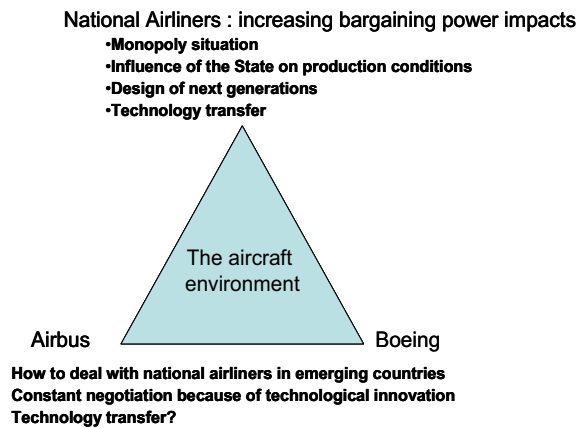
In 2000, Boeing held about 75 percent of the Chinese market, but that was mainly due to second-hand aircrafts that were growing old. One analyst who followed closely the strategies of the two competitors in China, commented,

"If we were having a look at new orders, the situation was more complicated for Boeing with a great strength, the 777, and a big concern, the A320 family. There were also two big challenges: (a) Was the market meant to plebiscite the A380 strategy of Airbus or the middle size 787 strategy? (b) Would Boeing win this battle or would the A350 manage to overcome its technical weakness with a better co operation?"

The situation for Boeing was quite difficult. Dealing with the Chinese government was not exactly what an American military giant expected it would have to do. Yet, Boeing could not afford to miss this market, so a balance had to be found between close cooperation and sharing military intelligence by way of technology transfer.

The result was that Boeing accepted having to transfer some supply activities to China in order to reduce costs and to please the Chinese government which had a strong bargaining power with the two companies (see **Figure 4**). Yet it decided not to transfer high technology activities out of its US territory. Boeing had a center in Beijing to train pilots and to educate maintenance labor but nothing like Airbus.

Figure 4: Aircraft environment and the influence of National airliners



THE FUTURE

Although Airbus claimed to be the world leader in 2005 with 51 percent of the volume, it was actually Boeing, after 5 consecutive years of difficulties, which led the market, claiming 56 percent. An analyst summed up that situation,

“Boeing managed to sell mainly aircrafts at US \$200 millions whereas Airbus sold planes of the A320 family which are around US\$ 60 millions. And that will probably impact the profitability of both firms.”

Regarding the next generation aircrafts, the 787 remained ahead the A350. The 787 will be released in 2008 while the new A350, after re-designing, can only be released in 2012. On the other hand, the A380 which was supposed to be delivered by the end of 2006, technical glitches have already caused. Nevertheless, with the reinforced trust from its clients, notably Singapore Airlines, the total market of more than 400 units of A380 was booked by Airbus.

The future is not easy to predict (Bédier, 2008). The battle will continue and it should be remembered that the “8” of A380, and of 787, was not a logical evolution after the series of A340, A350 and the 737... it actually referred to an Asian superstition that says the number “8” is a lucky charm (Sandholtz and Love, 2001). It is indeed strange to evaluate how far these archrivals will stoop and what divergent strategies they will use to seduce and control a market that was estimated to be \$221.3 billion (€174 billion) in 2005.

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RE-DESIGNING OF DEUTSCHE TELEKOM AG

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ABSTRACT

Deutsche Telekom AG is today Europe's largest telecommunications and information technology service providers and the fourth largest worldwide. It offers fixed-network, wireless and broadband or complex IT and telecommunications (ICT) solutions to private as well as corporate customers. As in 2007, Deutsche Telekom AG is represented in about 50 countries and generated more than half of the revenues abroad, mainly in Eastern Europe and the US. The company went public in 1995/1996 in the largest IPO of European history. This case article discusses the evolution of Deutsche Telekom AG from a former state-owned Deutsche Bundespost conglomerate and to a global player.

INTRODUCTION

On 26th February 2009, Rene Obermann stood in his office in Bonn preparing the annual meeting of Deutsche Telekom AG the next day. Despite the economic and financial crisis, Obermann believed that operating results are gratifying and finances sound so that in consequence Telekom should continue with its strategy. While revenues per employee and free cash flows have gone up compared to 2007 figures, revenues from business customers and fixed/broadband operations declined. Deutsche Telekom, the company that has been a former state-owned monopolist for several decades and only went public 13 years ago is now competing in an international telecommunications market, which is characterized by its fast pace and rapidly changing dynamism.

Compared to the history of telecommunication and the history of the Deutsche Bundespost, Deutsche Telekom AG as it exists today is fairly young. Many things have changed during the deregulation not only in the economic, political and social environment, but also in the company itself. The four leaders Helmut Rieke, Ron Sommer, Kai-Uwe Rieke and René Obermann all stood and still stand for the change and progress at Deutsche Telekom.

However, certain questions arise: How did Deutsche Telekom AG manage this change from a state-owned monopolist to a global leader? What does globalization mean to the telecommunications industry? What are external influences for Deutsche Telekom AG's business and in what way can they manage them? What were the factors influencing its strategy in the past and what were the role the CEO's played? Was Telekom's internationalization strategy effective and does it have an underlying structure to support future growth? What are the critical success factors for change in the future?

DEUTSCHE TELEKOM AG: STRATEGIC ORIENTATION AND STRUCTURE

Deutsche Telekom AG is today Europe's largest telecommunications and information technology service providers and the fourth largest worldwide. It offers fixed-network, wireless and broadband or complex IT and telecommunications (ICT) solutions to private as well as corporate customers. Its subsidiary T-Mobile is itself one of the largest wireless carriers worldwide. Telekom's strategic goal is to create benefit for the customer and become the best and most recognized service company in the industry by customer-specific solutions, high quality networks and efficient operations. As in 2007, Deutsche Telekom AG is represented in about 50 countries and generates more than half of the revenues abroad, mainly in Eastern Europe or the US. With its environmental and social performance, Deutsche Telekom AG is regularly at the top of international sustainability indexes.

The company has evolved out of the former state-owned Deutsche Bundespost conglomerate and went public in 1995/1996. It was the largest European IPO in history up to that date and posed major challenges on the company's CEO Ron Sommer who was succeeded by Kai-Uwe Ricke and later Rene Obermann. They faced major changes in a rapidly transforming environment.

It's current Group strategy "Focus, Fix and Grow" aims at the realization of new business opportunities mainly in mobile internet, broadband and mobile communications as the traditional fixed-network business becomes increasingly saturated. Thus, the four main goals are to improve competitiveness in Germany and in Central and Eastern Europe, to grow abroad with mobile communications, to mobilize the internet and the Web 2.0 trend and to roll out network-centric ICT. With further international growth, Deutsche Telekom AG intends to leverage international economies of scale and synergies.

"The company intends to grow in the mobile and fixed network in the coming years, above all on the back of broadband offers. With attractive rates, Internet-based services, innovative terminal devices and access to attractive content, Deutsche Telekom plans to convince its customers and establish itself as a service provider enabling personal and social networking."

Deutsche Telekom AG positions itself with three different entities: T-Home for fixed and broadband private customers in Germany, T-Systems for Business customers worldwide and T-Mobile as the global wireless carrier with a focus on the US and Eastern Europe. Besides these main pillars, Deutsche Telekom AG has a range of other subsidiaries that partly have evolved out of the former state-owned structure.

THE CHANGE FROM A STATE-OWNED COMPANY TO A GLOBAL LEADER

Helmut Ricke: Making the privatization happen

After the adoption of the Postreform I in 1989, Helmut Ricke was appointed CEO of the Telecommunications sector of the Deutsche Bundespost. His challenge was to change the state enterprise to a leading and successful player in a competitive market which meant implementing measures like changes in accounting systems and the revaluation of many assets, leading to a lower equity base than previously assumed. Another main challenge was the improvement of the old telecommunication system in Eastern Germany to the West-Level, which required large capital resources – e.g. the instalment of fibre cables.

The meeting of the European Commission in Brussels in May 1993 gave a further impulse towards privatization as they decided to open their markets for network-based telephone communication to competition by 1998. Following protests and strikes of postal workers unions', the Postal Reform II, which proposed a complete privatization of the three former divisions of the Bundespost passed the Bundestag and Bundesrat in 1994. The law required the German government to be the majority shareholder in the former Bundespost companies for at least five more years and extended the monopolies for postal and phone services until the end of 1997. Telekom as a reaction tried to constantly reduce its workforce to increase efficiency – however, this was especially difficult with regard to the former civil servants where the Telekom had to pay high compensations that could be as high as 150% of basic salaries.

"Important steps towards competitiveness have been taken. [If the Bundestag approves,] we will take the next steps with seven-league boots. [...] In the last year we have founded capable subsidiaries [...] the customer has to be in the center of our operations."

Main problems of the former civil service system became evident in the mobile sector, where the Telekom had strong competition from private enterprises and only captured a market share of less than 50%. To increase efficiency, Ricke transformed the organizational structure to focus on private customers and business customers partly by spinning off business areas like mobile communications. At the beginning of 1995, the Telekom had 38 subsidiaries.

To become a global player within a broad range of products, Ricke started to find strategic partners all around the world – e.g. he entered a co-operation with France Télécom to hold a common stake in America's third largest telecommunication company Sprint Corp. With the partnered foundation of the *Société Européenne des Satellites* which operated the Astra system, he prepared the entrance in the multimedia business at the end of 1993. The same year, Deutsche Telekom Asia Pte.Ltd. was founded in Singapore to act as a stepping stone into Asia. Furthermore, business in Eastern Europe was started by negotiations with Russian network operator Rostelecom in 1994 to invest several billions in a digital public fixed-line network in Russia.

"Our chances lie in international alliances. The cooperation with France Telecom to buy stakes in US-company Sprint makes us a worldwide provider with European Roots."

In December 1994, several weeks before the privatization of Deutsche Telekom, Rieke resigned as CEO and did not underwrite the two-year contract that has been offered to him. Officially he stated personal reasons for his decision but many believe that he was also disappointed with the majority of politicians having been placed in the supervising board. This did not support his intentions to free the Telekom as soon as possible from political pressures.

Ron Sommer: Marketing and leading the biggest IPO in European history

In May 1995, Ron Sommer signed a five-year contract at Deutsche Telekom AG and succeeded interim manager Wilhelm Pöhlmann. Even though first steps towards a restructuring were already in place, he faced a difficult role: He was expected to change the former Deutsche Bundespost Telekom with a "civil service mentality" to a modern, international and competitive corporation. One of the first difficulties he faced was the introduction of new calling rates at the beginning of 1996, when the state subsidized calling rates were corrected.

In November 1996 he led the IPO of the Telekom stock which was supported by a massive marketing campaign and celebrated as one of the biggest and most successful offerings in financial history – brand recognition eventually reached around 90% in Germany. An agreement guaranteed that the German government could only sell shares to third parties if Deutsche Telekom agreed. The shares of the IPO were heavily oversubscribed and quickly traded above their initial value - over €10bn were raised in international capital markets by more than 1.4 mn private shareholders. The state still controlled about three quarters of the company, of which it sold about a third to the German government-owned development bank KfW in 1997 and 1998 (Boston, 1999).

Some investment bankers commented on the opportunities: "It will be hard for management to make Telekom as lean as it should be," a German banker said. An American banker also commented on the outlook: "If restructured properly, this could be a very profitable company a few years out. That will be a key role of the investment banker, a role we would like to play."

The IPO created a high popularity for the equity market: "We have succeeded with the marketing surrounding Telekom over the past weeks and months of stirring up real stock fever in Germany," Ron Sommer commented. The subscribers were coming from all different backgrounds: "We have had everything from grannies to high government officials. The one thing they have in common is the expectation of earning money," Karl-Heinz Drimmer, manager of a savings bank in Bonn said. One investor states: "I had never thought of owning shares before this. I always thought it was too risky. But all the ads got me curious. It looks like this is an easy way to make some money. I am still nervous about shares though and plan to take profits as soon as the price rises."

Besides going public, Sommer's achievements included the sell-off of subsidiaries in several business areas like mobile communications and Internet as well as the digitalization of local area networks at the end of 1997. Telekom's provider of broadband access, T-Online, expanded its corporation with the world leading software company Netscape. To further increase brand recognition, the Telekom used various activities, e.g. the sponsoring their own cycling team "Team Telekom" which was even successful in the Tour de France the same year.

"The company has an extremely high level of knowhow, but it needs to be more customer friendly. [...] I'm no cheerleader, but my optimism can give employees their optimism back. [...] I want us to be recognized as a great company and to generate the brand awareness of a Coca-Cola or IBM. [...] It's not magic; you just have to do it."

Especially the deregulation of the telecommunications market with the destruction of Telekom's monopoly at the beginning of 1998 was a huge challenge. As the Telekom was in charge of the infrastructure, there were many political debates about the usage fees for competitors. With the introduction of the German Telecommunications Act in January 1998, the German fixed-network telephone market was opened to competition and the German "Regulatory Authority for Telecommunications and Posts" was established. This gave Telekom's competitors for the first time the chance to offer "call-to-call" services and prices dropped immediately by up to 30 percent. However, most consumers were reluctant to change their provider completely. Some providers, mainly infrastructure or utility companies also used their own network and did not rely on the Telekom.

Meanwhile, Deutsche Telekom AG tried to keep its market share and fought fiercely against its competitors. They charged competitors a high rent for using the Telekom owned phone lines. Furthermore, it warned to impose high “compensation fees” to customers who wanted to switch and also required “takeover fees” from the new phone companies. Lawsuits about Telekom’s business behavior arose by the federal regulation authority and it’s about 50 competitors. Moreover, Telekom was accused by the Federal Cartel Office for overcharging customers for local area network calls. The EU demanded the opening of its cable network for competitors in the middle of 1998. Telekom’s main field of interest was the fixed-line at that time and they still dominated the largest part of the market. Even though many consumers switched to lower cost long-distance calls, the Telekom could recapture some of the competitor’s revenues through network usage fees. In 1999 the Telekom finally was forced by the EU-Commission to sell its broadband network.

Seeing losses in market share in 1998 for long distance calls, Telekom reduced prices dramatically in 1999. Despite growth in online and mobile communications, Rieke reduced headcount from 216,000 in 1997 to 198,000 in 1999 to support his restructuring effort. In 1999, the cable TV business was spun off in a subsidiary and thus opened for external business partners. He also realized synergies by cooperating with another former part of the Deutsche Bundespost, the Deutsche Post AG, as both agreed to exchange several non-core business units leading to 4,000 employees who changed companies. Furthermore, the government continued to sell stakes of Telekom. The secondary offerings in 1999 and 2000 resulted for proceedings of about 11 bn € and 15 bn € respectively and thus were quite successful too. In early March 2000 the T-stock reached an all-time high of seven times the initial issue price. However, the IPO of T-Online International AG in April 2000 only raised 3 bn € in the already difficult market environment influenced by the Dot-Com bubble.

Ron Sommer’s TIMES growth plan aimed at identifying new markets in telecommunications, information technology, multimedia, entertainment, and security services. Attempts to form strategic alliances were widely observed but not always seen as being successful. The cooperation with France Télécom and US Company “Sprint” in their joint company “Global One” mainly led to losses. The planned acquisition of Telecom Italia, announced in 1999, did not even take place (Olivetti acquired it instead), but led to discrepancies with France Telecom, which ended in the break-up of Global One with France Telecom acquiring Deutsche Telekom’s stake. More successful were Telekom’s own acquisitions of Austria’s second largest mobile operator Max-Mobil Telekommunikation Service GmbH in February 1999, the acquisition of British mobile operator One-2-One in October 1999, the investments in Croatian network operator Hrvatske Telekomunikacije, the US cable network operator Media One in Poland, Hungary and Russia as well as the takeover of French fixed line operator Siris. T-Online exchanged parts of their own shares in February 2000 to take over French online service “Club Internet”. Apart from network operations, Telekom invested in software company Beta Research, web search engine Infoseek and Debis system solutions. To strengthen growth in Eastern Europe, they used the possibility to assume control over the former Slovakian fixed line monopolist and mobile network operator Slovenské Telekomunikácie. By acquiring the Spanish Internet portal Ya.com, Europe’s biggest Internet provider T-Online opened possibilities to enter the Spanish and South-American market.

“We have been systematically preparing the conquest of the attractive TIMES-markets for years and have achieved tremendous success. The potential is not an aloof vision, but reality. [...] There are only two possibilities when it comes to acquisitions: eat or being eaten. Fast growth is more important than a revamped balance sheet. [...] In the fast moving telecommunications market it has to be clear who pulls the strings.”

In 2000 another major event in the telecommunications industry took place: the auction for UMTS licenses by T-mobile for about €8.5 bn and Telekom’s acquisitions of the US mobile operators Voicestream and Powertel for about €39.5 bn - a partnership that enabled T-Mobile to offer standardized rates for voice and data services to frequent travelers and was a big step towards T-Mobile’s establishment in the US market, but suspended T-Mobile International’s IPO. Both investments added largely to Telekom’s debt burden and thus have been criticized in public. Still being the dominant market player in Germany far ahead of competition, Telekom faced internal problems: high personnel costs for its 190,000 employees, losses from investments in Malaysia and Indonesia and losses from selling subsidized telephone and fax machines. Furthermore, the real estate value of Telekom had to be adjusted by €2.2bn due to a revaluation in 2000 and many private shareholders felt betrayed by the companies’ perspective. The administrative court also ruled that the high “interconnection-fees” to competitors were illegal and required Telekom to make its network accessible to competitors at much lower prices. Moreover, industry focus changed from the fixed-network business to mobile operations, where Vodafone-Mannesmann had become the leader in Germany.

“We can’t lead a company like this with the methods we learned from textbooks. We need a centralized guidance and decentralized collaboration. This means that our four pillars have to cooperate regionally while following a global corporate strategy. We need internal competition for the best ideas and offers, but also a culture of

successful and voluntary collaboration. Only manager who like working in teams will be able to contribute to our success."

After severe losses of Telekom's stock, Sommer's global player strategy and his ability to manage the company were challenged in 2001 despite further positive news about cooperations in media and the approval of the US regulatory council on the acquisition of Voicestream and Powertel. Overall, Sommer ended the fiscal year 2001 with high losses and the value of Telekom's shares fell below the initial offering price for the first time. Critics of shareholders peaked at the annual meeting, where Sommer announced an increase in management salaries despite the bad results. Publicly pressured by the German Government, Sommer resigned on 16th of July 2002 as CEO of Deutsche Telekom and Interim manager Helmut Sihler took over control for six months.

Before there have some been discussions about the interim solution and the succession of Sommer. Goldman Sachs' Chief Executive Henry Poulson however was skeptical of a management change at that strategic important point of time: "The essential element of the successful execution of this plan is the continuity of Deutsche Telekom's management." Some of the favorite candidates of the government like DaimlerChrysler's head Juergen Schrempp, former chief of Volkswagen Ferdinand Piech and head of Porsche Wendelin Wiedeking however rejected the offer. The unions, who occupied half of the seats in the supervisory board, favoured an internal solution and Gerd Tenzer, a former civil servant and member of the social democrat party of chancellor Gerhard Schröder would have met the interests of many stakeholders. Ado Wilhelm, a union official who speaks for 10 union-linked board members, told news group Reuters "If it came to a change, we would want an internal solution. We don't want a new CEO who turns the company upside down." Heinrich von Pierer, CEO of Deutsche Telekom's biggest supplier Siemens was also in favour of this solution: "Tenzer is a good choice. He is respected by suppliers, business partners and the entire telecoms sector."

However, as stock markets did not react favorably, the plan was rejected. Bear Stearns analysts noted, that "the appointment of Tenzer strikes us as an unsatisfactory half-way house. An existing member of the management board can hardly be regarded as a breath of fresh air." Other fund manager's were skeptical too: "I don't think he will introduce any big new ideas into the company. I'm not convinced he will provide us with new strategies or ventures. This is being driven by the politicians and the unions, not by people who have rational ideas about the future of the company," a fund manager at Nordinvest said. He would prefer Ron Sommer to stay in place rather than having an internal interim solution. The managing director of a German shareholder research group criticized the political nature of the decisions: "Shareholders were already expressing their anger toward Deutsche Telekom. But the whole focus in recent days has been political. That hurts our equity culture." The German newspaper Die Zeit noticed: "Even if Tenzer wins the vote tomorrow, this thing is going to backfire on Schroder. Tenzer is really a symbol of the old days of Deutsche Post."

In the end, Helmut Sihler, former Chairman of consumer products company Henkel was chosen, although he has not been active for a decade. His task was to find a successor and to support international growth. "We want to be an international company," he said. "We cannot and will not be a company only in Germany."

Kai-Uwe Ricke: Empowering Telekom's employees

In January 1998, Kai-Uwe Ricke joined Deutsche Telekom and was CEO of Deutsche Telekom MobilNet GmbH by Sommer and in February 2000, CEO of the new mobile parent T-Mobile International AG. In May 2001, he became member of the board at Deutsche Telekom AG and was responsible for mobile communications (T-Mobile) and Online Services (T-Online). As CEO of T-Mobile, he managed to recapture Telekom's position as market leader by 2002 from Vodafone.

He expanded T-Mobile's international position by acquiring Austrian Max-Mobil, British One-2-One, Czech Radiomobil as well as the stock acquisition of US Voicestream and Powertel which were all brought together under the T-Mobile brand in 2002 with the existing Telekom's operations Matar in Hungary and HT in Croatia being transferred to T-Mobile.

In November 2002, Kai-Uwe Ricke became CEO of Deutsche Telekom AG, replacing interim CEO Helmut Sihler, who was head of Telekom's supervisory board between 1996 and 2000. To complete Sihler's plan to cut costs and reduce headcount by more than 50,000 employees, Ricke created the company owned personnel-service agency Vivento to transfer employees into this job creation company and provide outsourced services to external clients. In addition he introduced shared services in the personnel development are like "Telekom Training" to develop internal learning and knowledge capabilities and the Research & Development

unit “T-Labs” to strengthen Telekom’s innovative power. However, especially getting flexibility in dealing with civil servants was difficult. On the strategic side, the “Excellence Program” showed its effects and Rieke replaced it in 2006 with the new strategy “Telekom 2010” mainly to fight the loss of customers in fixed-line operations. Besides strengthening service, it included a new assignment of responsibilities and flat rate tariffs for Internet, fixed line and mobile communications. The strategy involves seven areas of action to improve innovation, service and efficiency in Germany, Europe and the US, Telekom’s core consumer markets, as well as the international business customer segment.

“The transformation in Telekom is huge. As the management board we are looking forward to this challenge - now more than ever. [...] Our success story will continue.”

One of his first actions as CEO was the reorganization of the management board to strengthen the decentralized responsibilities of the four areas and by giving their heads places in the board. New CEO of T-Mobile was René Obermann. To stabilize the financial situation, Rieke carried out wide-ranging divestitures to raise money and not having to issue shares again. These divestitures included parts of the real estate assets and of the cable network as well as the stake in Eutelsat and French fixed line operator Siris. Furthermore, T-Mobile sold capacities of its UMTS licenses to competitor O2 for €210mn and its stake in Russian mobile operator MTS for €200 mn as well as most of the stakes in Asia for €861mn. Overall, Rieke did not change the growth objective, although he postponed some investments.

One of his biggest changes was the reintegration of T-Online into the Deutsche Telekom AG which was carried out by buying back the shares of T-Online, the subsidiary that went public only a few years earlier. For T-Com, Rieke continued the wide-ranging cost-savings. Losing the quasi-monopoly in the local networks in 2003, competition increased and demanded fast reactions of Telekom. At the same time, Rieke planned to invest in broadband connections for Internet and Voice-over-IP connections. T-Systems were chosen to introduce the road charge system for trucks in Germany, which after several delays was launched in 2005. To expand T-Mobile’s position in the West of the US, Rieke acquired the mobile networks of Cingular Wireless and to grow in Austria, he bought Telering, Austria’s fourth largest mobile service provider in 2005.

However, his plan to reduce the workforce in the fixed line business by further 32000 employees of 170000 until 2008 was criticized. Nevertheless, Rieke managed to present in 2005 the best results of the company’s history. Despite the acceptance of Rieke’s strategy by the supervisory board, success did not come immediately and the proposed cost saving program at the end of 2006 could not save his job. According to German newspapers the change in management has been planned long before by a one influential US shareholder and finally the state gave in their demand to find a new CEO. Many agreed that overall Rieke did not do a bad job as he managed to reduce the debt burden and bring the Telekom back again in the profit zone. He was popular among his co-workers due to his cooperative management style and was said to be hardworking. Yet, the stock price performance was unfavorable for him and he resigned on the 12th of November 2006 without having completed his strategic reorganization.

René Obermann: Creating the Spirit

In April 1998 René Obermann was appointed manager for the sales department of T-Mobile Germany by Ron Sommer, where he became CEO in 2000. He managed to increase the number of customers to more than 25 mn to increase market share over 40%, surpassing competitor Vodafone. Since 2001 he was also Head of “European Operations and Group Synergies” for T-Mobile international. His success attracted the headquarters attention and he was appointed head of mobile communications for Deutsche Telekom AG as well as CEO for T-Mobile International AG in 2002, a role in which he succeeded new CEO Kai-Uwe Rieke. To support the fastest growing segment within Telekom, he acquired the US providers Voicestream and Powertel in 2001 and unified the subsidiaries in the US, Great Britain, Austria, the Czech Republic and the Netherlands within the T-Mobile brand making it the only European operator with fully integrated US operations. In contrast to other mobile operators, T-Mobile was still fully owned by the Telekom but enjoyed independence in its operations and was one of the most profitable companies in the roaming services as it owned a wide range of mobile networks.

In 2003 T-Mobile entered the strategic Freemover Alliance with Telecom Italia Mobile, Telefónica Móviles of Spain and later on Orange France to facilitate the customer communication abroad and to challenge Vodafone Plc, the world’s leading mobile operator at that time. Besides Roaming, the newly arising data services were thought to be profitable. To be able to provide content, a partnership with Sony Music was announced in 2004. Rieke gave Obermann the responsibility for all sales and distribution activities in Germany.

The supervisory board appointed Obermann as Ricke's successor and gave him a five-year contract starting in November 2006. Ricke had achieved his goal to reduce debt and was able to achieve the best results in company history up to that time, but was criticized for losing market share in the fixed line business in early 2006. The decision to replace him with Obermann was forced by the main stakeholders, the German Government and US-financial investor group Blackstone who acquired a stake of 4,5% in Telekom in April 2006 – enough to assume a role in the supervisory board. Despite Obermann's resistance to replace his companion, he took over the challenge and was favored by the stakeholders compared to a foreign CEO.

Priorities for Obermann were the improvement of customer service and cost savings, especially layoffs in the fixed network area. Obermann appointed his close companions Hamid Akhavan as head of T-Mobile and Timotheus Höttges as head of the fixed line division. Karl-Gerhard Eick, CFO, took over the additional role of head of Human resources and remained in the board of management together with Lothar Pauly, head of T-Systems. Pauly however resigned in May 2007 due to accusations of bribing at his former employer Siemens and Eick takes over his responsibilities before Reinhard Clemens assumes responsibility at the end of the year.

Obermann's restructuring activities included a change in strategy. He introduced a new Code of Conduct stating the values of Telekom. T-SPIRIT stands for Superior Value, Passion for Telekom's customers, Innovation, Respect, Integrity and Top Excellence. Living these values means working as a team and empowering all employees to improve quality, innovation and efficiency to deliver the best results for Telekom's customers.

"This strategy clearly differs from our earlier ones. However, we do not change goals that we still believe are correct. We are on the right path: Focus on the core business, improve the Service in Germany, increase efficiency, reduce costs and grow in target markets abroad."

Moreover, he combined T-Com and T-Online to T-Home to have the three main pillars T-Home, T-Mobile and T-Systems. He continued with the three year staff reduction program, to reduce headcount by 32,000 employees by early retirement, partial retirement or compensations. Furthermore he planned to outsource up to 50,000 employees into T-Service, a decision that led to protests and strikes by 15,000 workers who feared longer working times and a lower wage. After several weeks of strikes and negotiations with labor union Ver.di, both agreed on Telekom's proposed plan, which included compensations for the transferred workers.

"We are not in the position of a price leader. We combine excellent service with attractive offers in the probably best German mobile network. [...] To move a big ship like Deutsche Telekom, you have to plan long-term."

In 2007, in the areas of IT-product development, media and technical facilities, Telekom planned to hire over 4,000 young academics after having hired 5,000 over the last two years. However in March 2008 they planned to reduce the number of workers within T-Systems by 3,000 to 4,000 per year up to 2010. In August 2008, Deutsche Telekom announces the planned closure of 59 of its 86 locations mainly by consolidating functions into greater centers – it planned to offer new jobs to the 8,000 workers affected. To divest non-core businesses, Telekom sold five of its call centers to Arvato, a Bertelsmann subsidiary and in 2008 divested its Real Estate subsidiary DeTeImmobilien.

New products and brands were launched. To target the low-price customer segment, the brand "Congstar" was introduced to offer broadband and mobile communications. To target high-end customers, T-Mobile entered an exclusivity agreement with Apple to be the only company to market the new iPhone in Germany. For further strengthening its position abroad, T-Mobile acquired US-mobile operator Suncom for 2.4 bn US\$ to strengthen its position in the South East of the US in September 2007 and a stake in Greek telecommunications company OTE in March 2008.

Obermann believed:

"Our success is due, among other factors, to the fact that we have improved our customer service, customer acquisition and customer retention levels over the last two years. We have consistently implemented our "Focus, fix and grow" strategy throughout the Group, focusing on four cornerstones: Improving competitiveness in Germany and in Central and Eastern Europe; Growing abroad with mobile communications; Mobilizing the Internet and Rolling out network-centric ICT."

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DEVELOPING A KNOWLEDGE MANAGEMENT STRATEGY FOR A LIFE-INSURANCE COMPANY: A SOUTH AFRICAN CASE STUDY

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ABSTRACT

This paper presents a systematic approach that can be followed to formulate a knowledge management (KM) strategy. The management of knowledge should be integrated into the other management activities in the enterprise and linked to the business strategy. An empirical survey was conducted to investigate the current situation with regard to KM activities in a life-insurance company and to determine the relationship between the KM activities and the business strategy. The results indicated that there is a clear understanding of the importance of KM and steps are recommended to formulate a KM strategy for the enterprise.

INTRODUCTION

Throughout the world the value of knowledge for the modern enterprise is increasingly being recognised, and more and more enterprises are explicitly attempting to manage this important asset. To be successful in the management of knowledge as an asset, it is of fundamental importance to recognise that knowledge assets, just as any other asset of the enterprise, should be managed in the context of the overall business. The focus is therefore not on knowledge per se, but rather on managing the business to include a knowledge perspective. This is achieved by recognising that knowledge is a valuable asset that should be managed explicitly in an enterprise.

In this paper, the management of knowledge for competitive advantage in a life-insurance company, whose core product is knowledge itself, is discussed. The business environment within the South African insurance industry has been turbulent and volatile in the past, with South African enterprises now required to compete internationally in a more regulated manner (Kruger, 2010: 6). Globalisation requires enterprises to stay a step ahead of their competitors. To achieve this, life-insurance enterprises are facing many challenges and management need to make strategic decisions in order for them to compete in the foreseeable future. By utilising KM during the strategic management process, management could make effective decisions that will assist an enterprise to gain greater market share and to compete successfully against local and international competitors (Kruger, 2010: 7). The research examines how KM affects the competitive nature of the enterprise and how the enterprise can use KM to build long-term competitive advantages. Traditionally many companies have taken an ad hoc approach to managing knowledge, resulting in work duplication, inconsistent work practices and loss of important organisational knowledge when employees retire or leave the company. The paper presents a systematic approach that can be followed by management in order to improve the business value of the knowledge assets of the enterprise. The aim of the research is to enable the management of the life-insurance company to develop an effective KM strategy for the enterprise. The research will identify the benefits or problems that are experienced by implementing a KM strategy as an input to the strategic management process and what value KM adds to the process.

Bateman and Snell (2007:9) define KM as practices to discover and harness the intellectual resources of an enterprise embodied by the individuals employed by the enterprise. The aim of such a KM definition is to find, unlock, share and capitalise on the expertise and skills of employees. Knowledge resides in the minds of people and therefore KM is the practice of supporting individuals to share and utilise the knowledge they have. An individual's knowledge is of no value to anyone else if it is not shared or turned into some kind of product or

service. Gilchrist (2008:5) defines KM as a continuous process that describes the systematic creation, acquisition, integration, distribution and application of knowledge which support organizational objectives and mission accomplishment". KM is thus seen as a process or strategy to manage knowledge in enterprises.

BUSINESS STRATEGY AND KM

The linking between KM and the business strategy is viewed as the crux for successful KM in any enterprise. Thus Nonaka and Takeuchi (1995:74) state that "The most crucial element of corporate strategy is to conceptualize a vision about what kind of knowledge should be developed and to operationalize it into a management system for implementation".

Zack (1999:125) found in his research among 25 firms the most important element for guiding KM in the enterprise is its strategic orientation, planning and formulation. He postulates that an enterprise's strategy assists in identifying the KM issues which assist and support the enterprise's competitive position and thus shareholder value. Yet, according to Zack, this link between KM and strategy is widely ignored in practice (Zack, 1999:126). This in itself plays a major role in the acceptance of the role of KM at strategic level by senior management.

Davenport and Prusak (1998:ix) state that for most knowledge enterprises it is of critical importance to establish a link between KM and the business strategy. They propose two approaches to this requirement:

- Make knowledge the product of the enterprise by redefining existing products and services on the basis of knowledge assets or augmenting their application with knowledge, and/or
- Implement a business strategy with an integrated KM programme ensuring that the key business drivers are supported.

Davenport and Prusak (1998:ix) do, however, express their concern that while the linking of strategy and KM is critical, business in general has not really achieved this. The enterprises that implement this approach are those that are in the business of selling knowledge, e.g. consulting houses, software developers and similar undertakings. In other business sectors there is a dearth of examples – they do acknowledge that there are KM initiatives that do bring about a measure of efficiencies, but the real long term sustainable quantum improvement results have just not been achieved yet.

Before formulating a KM strategy, it is important to establish the importance of KM in the overall objective of the enterprise. Depending on the outcome of the analysis of the enterprise's current position with regard to KM orientation, a strategy should be formulated to address opportunities and threats. The KM strategy is essentially a matrix that depicts KM as a set of processes, which are defined through the application of the management functions to each of the organisational knowledge processes. In addition to defining a complete set of KM processes, the strategy also addresses the link between KM practice and business strategy.

EMPIRICAL SURVEY ON KM ACTIVITIES AT THE LIFE-INSURANCE COMPANY

The purpose of the empirical survey was to investigate the current situation with regard to KM activities in a life-insurance company in South Africa and to determine the relationship between the KM activities and the business strategy of the enterprise. The empirical survey was conducted to determine the extent to which the enterprise utilises KM practices, particularly knowledge sharing and collaboration.

Methodology

According to Eisenhardt (1989: 534) a case study is "a research strategy which focuses on understanding the dynamics present within single settings". A case study methodology is normally adopted when a holistic and an in-depth investigation is needed. Data analysis in a case study consists of examining, categorising, tabulating, or otherwise recombining the evidence to address the initial propositions of a study (Yin, 1994:36). The survey methodology consisted of questionnaires, which were distributed to the sample group. The questionnaire was

divided into four sections. Section A focused on biographical data and Section B, C and D on applications of KM and knowledge sharing in the enterprise. A sample of 847 employees was randomly drawn by computer from the enterprise's employee database. The questionnaire was developed in a Uniform Resource Locator (URL) format by the Statistical Consultation Services (Statcon) at the University of Johannesburg. The questionnaire was distributed via e-mail, including the URL link, and accompanied by a covering letter to the 847 employees. The respondents had to submit the completed questionnaire directly via the URL link to Statcon for statistical analysis of the data. Of the sample of 847 employees, 346 respondents (40.85%) returned completed questionnaires. The data from the questionnaires were processed by Statcon, which used the Statistical Package for Social Sciences software for the input, management and statistical analysis of the data that were collected. These were then put into spreadsheets with statistical graphics for a visual presentation of the results.

Findings

Biographical data

The majority of respondents (39.4%) are older than 30 years and younger than 39 years. More than 50% of the employees have been employed at the enterprise for more than five years. Most respondents (46.3%) hold a degree and 27.2% of the respondents are in possession of a post-graduate degree, whereas only 22.3% of the respondents' highest qualification is a post-matriculation one. With regard to job levels employed, 3.5% of the respondents are in the top structure of the enterprise, whereas 13% are on senior management level, 26.5% on middle management level, 15.9% on junior management level and 41% in administrative positions.

Defining KM

Since KM is a fairly new concept in the enterprise, respondents were asked whether they agree with two KM definitions considering their present work situation (see Table 1).

Table 1: Defining KM

Definition	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Total
KM encompasses all activities required to benefit from the enterprise's knowledge assets in support of the enterprise's business and operations.	1.6% (5)	3.1% (10)	27.7% (88)	52.2% (166)	15.4% (49)	100.0% (318)
KM is bringing the right knowledge, in the right quantity, to the right place at the right time.	0.9% (3)	5.9% (19)	21.1% (68)	48.4% (156)	23.6% (76)	100.0% (322)

According to Table 1, respondents understood the importance of KM to the business and believed that the managing of knowledge is very important to the success of the enterprise. According to Call (2005:19) disagreement on what KM entails leads to unsuccessful KM projects and Ndlela and Du Toit (2001:158) emphasise that people are the key to the implementation of a KM strategy. From a KM strategy initiative the overall high acceptance of the two definitions should facilitate the process of developing and establishing such a strategy in the enterprise. Special notice should be taken of respondents' positive attitude to the potential applications of KM in the company.

Knowledge culture

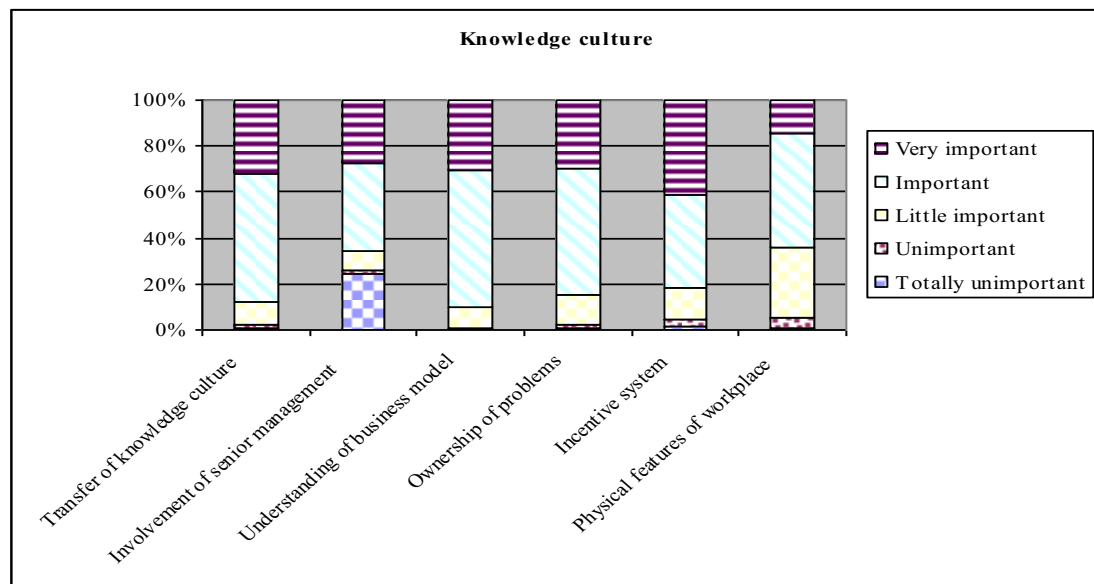
Top management can maintain an organisational culture in order to help facilitate knowledge transfer in an enterprise and respondents were asked whether they are encouraged to share knowledge, to implement their own ideas and whether they are open to change (see Table 2). Singh (2008:12) found that certain leadership styles had a significant relationship to the KM of an enterprise. Crawford (2005:13) stated there was an apparent relationship between transformational leadership and KM.

Table 2: Situation with regard to a knowledge culture

	Not at all	Very little	Somewhat	Great extent	Very great extent	Total
There is an organisational culture which encourages the sharing of knowledge	1.9% (6)	15.3% (47)	20.5% (63)	51.9% (160)	10.4% (32)	100.0% (308)
I am encouraged to implement my own ideas.	6% (2)	8.8% (27)	21.4% (66)	59.4% (183)	9.7% (30)	100.0% (308)
I am open to change.	1.0% (3)	1.0% (3)	65% (20)	63.1% (195)	28.5% (88)	100.0% (309)

According to Figure 1 the ability to utilise KM practices is evident of a strong KM culture, which includes the elements that constitute a learning enterprise. KM practices are applied in the enterprise and 62.3% of the respondents agreed that the enterprise has a KM culture. This finding supports the findings of Mostert and Snyman (2007) and Kok (2004) that top management has an impact on KM practices in an enterprise. According to Figure 1 senior management supports KM activities in terms of encouraging employees to be open to change and to implement their own ideas in the enterprise.

Figure 1: Knowledge culture

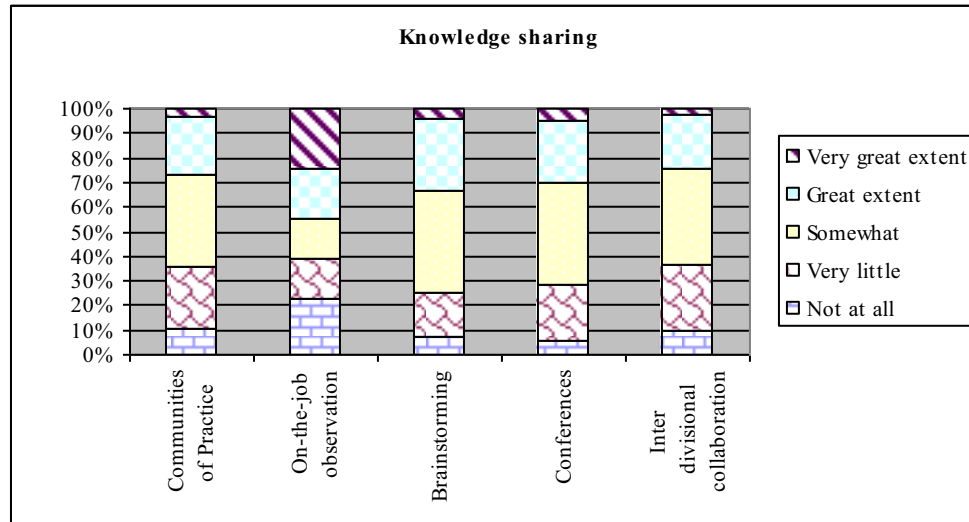


Knowledge sharing

It is clear from Figure 2 that knowledge sharing is the most visible KM practice and special notice should be taken of the employees' positive attitude to knowledge sharing. Respondents indicated that they share

knowledge mainly via on-the-job observations and brainstorming. A concern is knowledge sharing via Communities of Practice. It could be because employees are unfamiliar with the concept, use or benefits of a Community of Practice. This is an aspect that needs attention when developing a KM strategy.

Figure 2: Knowledge sharing



With regard to the current use of IT to share knowledge in the company, 71.2% of the respondents use e-mail to a very great extent. Only 57.1% of respondents indicated that they use intranets to share knowledge to a great extent. This could indicate a lack of expertise databases available or a lack of company expertise. The relatively high percentage (19.4%) of respondents indicating that they use document management systems ‘very little’ might indicate a lack of knowledge or awareness of these systems, or it could be an indication that some of these systems are not used in the company. Information systems are enablers to manage knowledge and it is important that the enterprise sees information systems from a KM perspective in order to realise their full potential (Ndlela & Du Toit, 2001:159).

The overall analysis of the formal and informal channels of knowledge sharing indicates that the enterprise is doing well in knowledge sharing. The cross-tabulation of knowledge sharing at management level indicates a disproportionate response value in respect of knowledge sharing at executive and senior management level and knowledge sharing at middle management and junior management level. This is a cause of concern. Middle managers are the future leaders in the enterprise and the transfer of their tacit knowledge is essential for a KM culture in the enterprise. Specific interventions will need to be established to encourage knowledge sharing at middle and junior management levels. Creating a knowledge-sharing culture in the enterprise requires strong leadership and the attitude of the executive and senior management to sharing their knowledge is encouraging.

RECOMMENDATIONS

Employees and business leaders of the life-insurance company are aware of the importance of KM. The empirical results show that without formal implementation of a KM strategy, knowledge-sharing processes are not practised to their full potential (especially on middle management and junior management levels).

Many KM frameworks are available, for example the Skandia-Navigator, Wiig’s framework and Hedlund and Nonaka’s framework. However, it is the opinion of the authors that it is difficult to sell these frameworks to senior management. This opinion is confirmed by Mostert (2006:8), who states that formal KM frameworks are of little benefit unless they are usable by people in enterprises. Senior management in the life-insurance industry understands commonly accepted management theory and a KM strategy based on theory relating to a SWOT analysis was recommended as a good starting point to formulate a KM strategy. A KM

strategy can be seen as a long-term plan aimed at managing knowledge for competitive advantage in the enterprise. The strategy involves the following four steps:

Step 1: External analysis: External analysis is important from a KM point of view, since the KM strategy must take cognisance of the competitors' actions and KM strengths and weaknesses. When analysing the external environment, the following questions can be asked:

- What opportunities does our current strategy present that can be exploited using a KM approach?
- What KM opportunities does the external environment offer that we can exploit in our enterprise?
- How can we help the enterprise through KM with its opportunities (time to market, improved design, differentiation)?
- Are our competitors exploiting a specific KM strategy? If not, can we use KM to gain a specific strategic advantage?
- What threats are present in our competitors' strategies in terms of knowledge acquisition?
- Are there any general KM threats that could affect our competitive position?
- How can we counter these threats?
- Can knowledge-based actions negate a business threat by:
 - Acquiring a knowledge asset?
 - Sharing knowledge?
 - Changing strategic posture?
 - Negating a competitor's strength?

Step 2: Self-analysis: Self-analysis aims to provide a detailed understanding of strategically important knowledge assets and areas of the enterprise. It is important to determine what the strengths and weaknesses of the enterprise are in terms of:

- Knowledge assets
- Enablers (processes, infrastructure, people, technology).

Employees in the enterprise have specific knowledge that enables them to pursue options that achieve competitive advantages for both the enterprise and employees and the know-how and experience inherent in the enterprise's memory bank. Results from the empirical survey indicate that few employees use intranets, expertise databases or document management systems. This situation should be corrected and core business processes should be designed to support the strategic direction of KM. Questions that managers might consider as they identify the enterprise's key internal factors as strengths or weaknesses and as a basis for the enterprise's KM strategy are the following:

- What are the enterprise's strengths and weaknesses in terms of:
 - Knowledge assets?
 - Enablers?
- How can the enterprise exploit the strengths and negate the weaknesses (know the market needs, what other know-how and skills should be developed)?
- How can the enterprise strengthen strengths and counteract weaknesses through KM (new assets, improved asset utilisation)?
- How can KM support the strengths?
- How can KM strengths help develop business strategy?

Step 3: Strategy formulation: A KM strategy results from the managers' awareness of and responses to virtually imperceptible trends in the marketplace. The formulation of a KM strategy depends on the availability of a KM culture. The majority of the respondents (62.3%) agreed that the enterprise has a KM culture and the management of the enterprise needs to create opportunities for tacit knowledge to be made explicit. The KM strategy should be aligned to the business strategy and support core business processes and key strategic decisions. In formulating a KM strategy, the following questions can be asked (Ndlela & Du Toit, 2001:156):

- How can KM contribute to the attainment of the functional and eventually strategic goals of the enterprise?
- Is knowledge on par with other enterprise resources, such as capital, natural resources, labour and entrepreneurship?

Step 4: Implementation and evaluation: When implementing a KM strategy, the prioritisation of activities, as well as their integration with other business processes, should be an important management focus area. Special notice should be taken of respondents' positive attitude to the potential applications of KM in the enterprise. An evaluation of the KM strategy compares performance with objectives and measures the overall efficiency and effectiveness of the enterprise's attempts to attain its stated aims and objectives. The evaluation process is used as a feedback mechanism for refining the strategy. Without an ongoing evaluation process, KM will not become institutionalised, but become a random exercise, which does not correspond to principles of good management.

CONCLUSION

KM offers a new perspective to observe an enterprise and its managerial process. The scope of a KM strategy can be vast and complex, as it spans all organisational functions. When implementing a KM strategy, the prioritisation of activities, as well as their integration with other business processes, should therefore be an important management focus area. The empirical results showed that currently knowledge-sharing processes are not practised to their full potential in the enterprise, although a learning culture exists. KM cannot be separated from normal business management, and any attempt to do so will inevitably fail. There is no such thing as KM *per se*. Enterprises that really want to excel in the future should be managed explicitly, systematically and comprehensively from a knowledge perspective. Good KM will harness the collective and individual knowledge within the enterprise to optimum effect.

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THE ROLE OF HR PERSONNEL IN PROMOTING AND ENCOURAGING ETHICAL BEHAVIOR IN THE WORKPLACE: A CASE OF SELECTED ORGANIZATIONS.

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INTRODUCTION

Ethics has of late become very important for organizations. Ethical behavior is essential for the success of any organization of today. The human resource personnel should play a pivotal role in ensuring that employees adhere to ethical principles and standards. According to Rossouw & Van Vuuren (2002) ethics are an essential part of the business and unethical behavior may have devastating consequences for an organization especially the human resource department. An acknowledgement of the importance of ethics is more than a mere commitment to be ethical, it requires the establishment of corporate ethical capacity in a concerted and structured way. Thus the HR personnel have an important role within the organization to advance and promote good conduct in ensuring ethical behavior. The human resource department which is responsible for recruitment, selection, training and assessment of candidates and employees should be aware of an ethical behavior that may affect their endeavor for success.

Rossouw (2002) states that the responsibility to eliminate unethical behaviour should not solely rests with the HR department but should also be shared by all members of the organization. Together with HR personnel playing a leading role everyone within the organizations should take responsibility in ensuring good ethical behaviour. The starting point of ensuring ethical behaviour is the individual who then gets support from the HR personnel who have specialised training in ethical issues. It makes sense for an individual to be quite aware of ethical standards and where the individual is not sure or is confused then consult the HR personnel for assistance.

Weis, (2006) recommends that the HR department should put mechanism in place to allow and protect those who report ethical behaviour. The HR should protect individuals who blow the whistle concerning unethical behaviour by employees within the workplace. Whistle blowing is a very important ethical issue as it guards against the social, economical and environmental negative impact of global markets invasion by multi-national corporations. It also acts against the aggressive and unethical nature of competition those firms engage in, particularly in the modern technologically-driven and turbulent economic times, in order to earn revenue. Whistle blowing is opposite to the cultural tradition that an employee does not question a superior's decisions and acts, especially not in public. The employee has the right to speak out in cases where the organization or management is engaging in an unacceptable practice.

PROBLEM STATEMENT

The issue of ethical behaviour is seen as a trivial issue in many organizations. Organizations have a belief that focusing on ethical issues is a waste of time and rather they concentrate more on other strategic issues. Yet little did they know that ignoring unethical behaviour costs the organisation a great deal of money and reputation. What is regarded as small amounts of unethical behaviour such as stealing of company property, forging of reports and results, dishonesty, competing with the employer, doing shortcuts, selling company secrets to outsiders, fraud and insulting other employees if summed up may cost a company reputation and its financial performance. It is therefore important for Human Resource personnel to play a pivotal role in advancing,

encouraging and promoting behaviour which is ethical within the organization. The HR personnel through the HR department should devise ways and methods that ensure and support all employees in their endeavour to practice ethical behaviour.

Objectives

1. To explore the concept of ethical behavior.
2. To determine the role played by Human Resource personnel in promoting and encouraging ethical behavior.
3. To investigate the importance of Human Resource personnel in promoting and encouraging ethical behavior.
4. To recommend ways in which HR departments can play a pivotal role in promoting ethical behavior in organizations.

Significance of the study

The study will encourage management to take the issue of ethics seriously and to consider ethics in their strategic plans and organizational policy. It will also give direction and a starting point for organizations when designing training programs meant to help employees to practice ethical behavior.

Preliminary literature review

The human resource department has to open itself for a new a role of advocating for good ethical behavior in the organization. Since the Human Resource department is responsible for the welfare of all employees they are the major players in imparting ethical behavior amongst employees. In order for their call to be meaningful to employees the practice of ethical behavior must start with the HR personal first.

HR specialists have a role in ensuring that employees are trained to uphold the organization's reputation for honesty and competence. Levering (2004) says that the natural result of creating such a workplace will be a productive environment "where employees trust the people they work for, have pride in what they do and enjoy the people they work with."

Research design and methodology

A qualitative method will be used for this research because either the head of the HR department or any one responsible with ethics will be asked to give a detailed explanation of the role their playing in promoting ethics and to provide policies they have in place concerning ethics. Either the human resource manager or the executive director will be interviewed. Furthermore the HR department will be asked to provide manual report on or company policy on ethics. The researcher will use purposive sampling method in which elements are chosen based on purpose of the study. Purposive sampling may involve studying the entire population of some limited group. In this study only the Human Resource department of each of the selected organizations will be targeted. Descriptive statistics will be used for analyzing data.

Preliminary findings

Studies indicate that human resource personnel are not fully playing their role of educating and encouraging other employees to adhere moral ethical behavior. Studies further indicates that the Human resource department which is responsible for providing training programs for all employees to practice ethical behavior are even themselves involved in unethical behavior and shun activities and programs which are meant to promote good ethical behavior. The programs and activities meant to promote and encourage ethical behavior are seen as costly to the organization hence the HR personnel ignore them.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

Ethics play an important role in today's organizations and if ignored may have negative reputations for the employer and management. Management should incorporate the issue of ethics in their priority plans and work together with the human resource department in advocating for behavior which is ethical among all employees. The HR personnel should give all necessary support to all employees in their endeavor to be ethical. Unethical behavior has devastating consequences if left unaddressed. Many organizations have fallen because they were ignoring the issue of ethics as they were busy with other issues. Giving attention to ethics will help in promoting togetherness among employees and financial wellbeing of the organization.

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PERCEPTIONS OF CORPORATE IDENTITY IN THE FINANCIAL SECTOR: A SURVEY OF GENERATION Y DURING THE RECENT ECONOMIC CLIMATE

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ABSTRACT

The 2009 financial crisis has affected the South African banking sector tremendously. In this article, the affect this has had on the perceptions of the corporate reputation of the banking sector was looked at. The main purpose was to discover Generation Y's perceptions of the banking sector's corporate identity during a financial crisis. This study portrays the importance of having a realistic and well-communicated corporate identity, especially during a financial crisis. A campus-intercept survey of 93 males and 107 females ages 18-25, was conducted. The survey showed that there is a difference between the intended corporate identity of banks, as stated in the mission statement, and Generation Y's perceptions of the corporate identity during times of financial crisis. It also showed that females' identification with the banking sector's identity is more positive than males' identification during times of financial crisis. Lastly, it showed that female perceptions of the corporate logos of the banking sector are more positive than male perceptions, during times of financial crisis. The 2009 economic crisis has affected the perceptions that Generation Y has of the banking sector's identity. An implication for managers is to carefully evaluate their identity especially during the 2009 economic crisis.

INTRODUCTION

Warren Buffet said: "If you lose dollars for the firm by bad decisions, I will be very understanding. If you lose reputation for the firm, I will be ruthless" (Doorley & Garcia, 2007:3-4). Corporate reputation is defined by Gotsi and Wilson, (2001:29) as "...a stakeholders overall evaluation of a company over time." This "overall evaluation" constitutes the perceptions of an organisation's image, identity, brand, personality, culture and corporate communication. The above quote emphasises the importance of reputation as an intangible asset that needs to be managed. One way to achieve this is through the management of corporate identity.

The financial sector in South Africa is experiencing an economic downturn. There has been little research as to how Generation Y's perceptions of the financial industry's identity have been affected. Through extensive research of articles in leading electronic databases such as EBSCOHost, SAepublications, Emerald and Proquest, it has been found that whilst there are vast amounts of literature on corporate identity (Davies, Chun, Vinhas de Silva & Roper, 2003; Doorley & Garcia, 2007; Kiriakidou & Millward, 2000; Marin & Ruiz, 2007; van den Bosch, Elving & de Jong, 2006; van Riel & Balmer, 1997) few articles have been written on the 2009 economic climate and its affect on the perceptions of banking identity in South Africa.

Wilkinson and Balmer (1996:22-35), address the importance of corporate identity in UK banking, which could be used as a guideline to approach this research in the South African banking sector. Previous research has also focused on the characteristics and other aspects of Generation Y (Martin, 2005; Rugimbana, 2007; Vejar, 2008). Most of the researched literature focuses on perceptions of corporate identity without a specific reference to Generation Y and the financial sector in general. A gap in the knowledge is the economic climate which is forever changing, therefore previous research would not apply to the 2009 situation. Consequently, we have an incomplete picture of Generation Y's perceptions of corporate identity in the 2009 economic climate.

This research will contribute to the banking sector by providing them with an idea of the elements of corporate identity that are effective for Generation Y and the elements that need to be adjusted. The research will also provide guidance as to which elements appeal more to men or women.

The research aim of this article was to discover Generation Y's perceptions of the banking sectors corporate identity during a financial crisis. To achieve this, the following specific research objectives were developed: To determine Generation Y's perceptions of the corporate identity of the banking sector during a financial crisis, to compare the ideal corporate identity of banks against Generation Y's perceptions of the corporate identity, to investigate if there are gender differences in perceptions of the corporate logo of the banking sector during a financial crisis.

LITERATURE REVIEW

Corporate Identity As An Element Of Corporate Reputation

A reputation can take years to be built, but minutes to be torn down. As such, it is very important that it is managed well *via* the strategic cultivation of its two main components: image and identity (Davies *et al.*, 2003:61). According to Doorley and Garcia (2007:4), reputation is equal to the sum of images, which itself is equal to performance and behaviour combined and communication. For the purpose of this study, we will refer to corporate reputation as:

“... a stakeholder's overall evaluation of a company over time. This evaluation is based on the stakeholder's direct experiences with the company, any other form of communication and symbolism that provides information about the firm's actions and/or a comparison with the actions of other leading rivals” (Gotsi & Wilson, 2001:29).

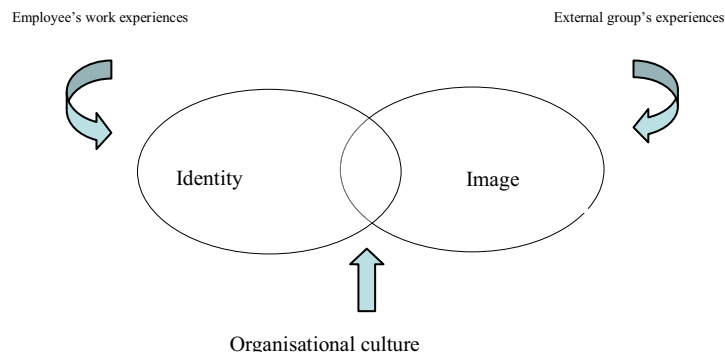


Figure 4: Organisational culture, identity and image

Source: Davies *et al.* (2003:62)

Doorley and Garcia (2007:5) explain that identity is what an organisation stands for above all else. A perception of corporate identity has mostly been focused on visual identity, such as logos and designs. A corporate identity also relates to how the firm is seen by its stakeholders (Wilkinson and Balmer, 1996:22). According to (Otubanjo & Melewar, 2007:414), the elements of identity are the mission statement, corporate identification, corporate visual identity, corporate behaviours and corporate communications. For the purpose of this article, the mission statement, corporate identification and corporate visual identity was emphasised.

Williams (2008:96-111) contends that the purpose of the mission statement is to define who a company is and what it does, and it addresses multiple stakeholders such as employees, shareholders, customers and the community. The statement also describes where the firm is going, how it intends to get there, and what its priorities, values and beliefs are. They include an outline on how the firm is unique. Corporate identity originates from the vision and aims of top management and when articulated in a mission statement, reflects the

ideal identity that management wishes to acquire (Kiriakidou & Millward, 2000:50). It is therefore hypothesised that:

H₁: There is a difference between the intended corporate identity of banks, as stated in the mission statement, and Generation Y's perceptions of the corporate identity during times of financial crisis.

Corporate identity used to be defined as just consisting of the symbols (logos, styling) of the organisation (van Riel & Balmer, 1997:340). Now, corporate visual identity forms part of corporate communications which is as a result of its key elements, which are the corporate name, logo, typography, corporate slogan, colour scheme and tagline which are used on stationary, advertisements, websites, corporate clothing, buildings and their interiors. It no longer defines identity, but is just one aspect of the corporate identity of an organisation. Four functions of corporate visual identity (CVI) are identified by Van den Bosch *et al.*, (2006:871-874): A CVI provides recognisability and visibility through additional cues to aid remembrance, a CVI represents an organisation for external stakeholders, contributing to the image and reputation *via* a support role, the structure of the organisation is reiterated to the external stakeholders through a CVI, including the rationality and the interdivisional relationships and CVI plays a symbolic role in creating identification between employees and the organisation.

H₂: Female perceptions of the corporate logo in the banking sector are more positive than male perceptions during times of financial crisis.

Marin and Ruiz (2007:245) explain the degree to which people identify with an organisation is reliant on the attractiveness of the organisation's identity, and this helps these people in satisfying their self-definitional needs. Identification satisfies the need for self-definition and societal identity (the internalisation of a group set as part of the self-concept and the acceptance of the values and behavioural norms of the group). In an attempt to determine the strength of employee identification with an organisation, it needs to be ascertained whether there is (van Riel & Balmer, 1997:347): a sense of belonging; consistency between the organisational goals and values; positive organisational membership; organisational support; recognition of distinct contributions; a feeling of acceptance; and security.

H₃: Females' identification with the banking sector's identity is more positive than males' identification during times of financial crisis.

GENERATION Y IN THE 2009 ECONOMIC CLIMATE

Generation Y are the children of the Baby Boomers and Generation X, born from 1982 to 2000 (Rugimbana, 2007:304). Generation Y are optimistic and empowered. Its members possess strong family bonds with many remaining at home for longer than previous generations (Vejar, 2008:3). They are looking for slightly different attributes in their employers. Both Generation Y men and women are similar in seeking the masculine stereotype in the workplace (clear opportunities for long-term career progression, opportunity in the early years to move around and play different rules, and wanting to work for a prestigious employer) (Terjesen, Vinnecombe & Freeman, 2007:515). According to Vejar (2008:3-4), some common traits of this generation are: attitude towards diversity, multi-taskers, narcissistic and technologically savvy.

Generation Y are very receptive to ethnic, religious and sexual-orientation diversity. One of the sources of this attitude is internet accessibility which allows the opportunity to connect with people all over the world, seek information on alternative lifestyles and join support groups that validate personal identity. Because of their higher education, optimism and confidence, Generation Y displays an inclination to multi-task. This is largely due to their formative years in which they engaged in a variety of extra-curricular activities that increased their group, cultural and sport skills.

Narcissism (faulty assumption that they possess special qualities that surpass others) is a prevalent negative characteristic of Generation Y. This is partly due to the massive amounts of websites in which people create "blogs" about themselves, thereby promoting their own interests and thoughts, making them seem exceptional and creating a spotlight for themselves. Generation Y's technological ability and reliance is one of the defining

hallmarks of the group. They have been brought up in an era in which information and conversation is achieved through a variety of avenues. This availability of information at their fingertips has led to a generation that expects instant gratification in knowledge acquisition, which results in consumer-power in the marketplace due to the variety of choices (Bakewell & Mitchell, 2003:95).

BANK INSTITUTIONS AND THE FINANCIAL CONTEXT OF SOUTH AFRICA

The financial sector deals with the financial institutions and the financial markets. According to Mapsofworld (2007) the banking sector is a sub-division of the financial sector. The financial markets mainly refer to the stock exchange. The largest stock exchange in Africa is the Johannesburg Stock Exchange (JSE) and it is situated in [Sandton, Gauteng, South Africa](#). In 2003 the JSE had an estimated 472 listed companies and is 2009ly the 16th largest stock exchange in the world (JSE, 2005). The financial sector has a huge influence on the economy and can be very beneficial or detrimental to it.

The South African Reserve Bank (SARB) is the central bank of the republic of South Africa. Its primary goal is the achievement and maintenance of price and financial stability. This bank formulates and implements monetary policies. It also regulates the supply of money by influencing its value. It is important to ensure that the banking system as a whole is sound and meets the requirements of the community. (South African Reserve Bank, 2007). The SARB has a huge influence on all the other South African banks which is why it is essential to keep an eye on its actions. The recent financial crisis was caused by financial instability and, as the financial crisis occurred mainly in the banking sector, it can be narrowed down further and called the banking crisis (The Guardian, 2008). There are two main elements that contributed to the financial crisis. Deregulation and the subprime mortgage crises are paramount. Regulation refers to guidelines, restrictions and requirements. Deregulation refers to doing away with regulation or removing regulatory barriers. It can also refer to decreasing regulation. This occurred in the past because the regulatory agencies did not fully utilise their regulatory powers. It is also possible that regulatory agencies did not utilise their regulatory powers well or in an effective manner (Copelovitch & Singer, 2009).

Mortgages were granted to people who could not afford to pay the money back. Exorbitant interest rates were charged in order to increase profit and if people did not pay these prices their houses would be repossessed. This is why the root cause of the financial crisis is said to be greed. Credit checks were not conducted thoroughly and nearly no down payment was necessary in order to obtain the mortgage (Pinyo, 2008).

Globalisation refers to the process of moving to a more interconnected world. It also refers to the economic, political and cultural activities across the world that have become more interconnected and individuals and nations find themselves influenced from a distance. This means that economies all round the world will affect each other. In this context, the American market had a domino effect on the rest of the economies of the world including China and Japan (EconomyWatch, 2008). The gross domestic product (GDP) is one of the measures of national income and output for a given [country's economy](#). It is the total value of all final goods and services produced in a particular economy. It is the dollar value of all goods and services produced within a country's borders in a given year. When the Financial Crisis hit the United States of America it was thought that South Africa would come out relatively unscathed. This was owed largely due to the credit crunch. The credit crunch is a restrictive policy aimed at reducing the amount of credit granted. This further reduces the likelihood of a bank failing during a recession. At first consumers were negative toward the credit crunch, it has helped balance the financial sector and has helped the members of public manage their financial matters. From a crisis management perspective it can be seen as very positive and can be said to reduce the adverse affects of the financial crisis in South Africa (Zini, 2008). The crisis took a few extra months to impact on South Africa. The World Bank became more strict on approving loans and interest rate hikes occurred all over the world. As a result of this South Africa experienced a massive growth in the unemployment rate as staff in all types of business were made redundant.

METHOD

The target population consists of both undergraduate and postgraduate students (male and female) on a campus in Pretoria. The units of analysis for all three hypotheses are individual students, with the banks the unit of analysis for hypothesis 1. The target population for the study are Generation Y members that fall between the ages of 18 and 25. A non-probability, quota sampling method was the most logical choice. Quota sampling ensures that a range of subgroups within Generation Y was represented on relevant characteristics to the exact degree required by the researcher. The objective for this sampling method was to achieve a quota in the sample that mirrors the relevant amount of subjects with that characteristic in the population (Zikmund & Babin, 2007:274-275).

According to the breakdown of students provided by a university in Pretoria, 47% were male and 53% were female out of the 38934 undergraduate and postgraduate students registered. In keeping with this figure, the chosen quota for males and females in the sample size was 93 males and 107 females. 200 questionnaires (of which all were usable) were received back and we had a 100% response rate. The study was slightly dominated by female respondents (53.5%) and the majority of the respondents fell in the 18-19 age group. The initial questionnaire was pretested with a quota sample of five male and five female students. Data for the main study was collected during a one-two month period from September to October 2009, using a campus-intercept survey with a fieldworker on hand. This method is ideal because a significant portion of the students form part of Generation Y. Two fieldworkers handed out the questionnaires at different locations on campus. A benefit of this is that any questions regarding the questionnaire could be answered by the fieldworkers. No incentives were provided to respondents. Difference between intended corporate identity and perceived corporate identity of the banking sector relied heavily on an article by Van Heerden and Puth (1995:15) "Investigating corporate image through the corporate identity of South African banking institutions," utilised a 30-item, semantic-differential scale. This scale was adapted to determine what identity certain banks are promoting and what identity the consumer perceives. As the original Van Heerden article (1995) is older than 10 years, the more recent article by Van Heerden and Badenhorst (2004) was also analysed. For perceptions of the organisational logo of the banking sector the same articles were used as a blue print.

For the identification with the banking sector's identity an adapted version of Cheney's (1983:268-272) Organisational Identification Questionnaire was used to assess the respondents' identification with a certain bank. The scale has a Cronbach's alpha of 0.94. All of the ten items of the scale are five-point Likert scale items. All the scale points of the ten items are labelled ranging from 1 ("strongly disagree") to 5 ("strongly agree"). None of the items are reverse scored. Scores on this scale were averaged for each item and then totalled for males and females. As the original organisational identification scale by Cheney (Rubin, Palmgreen & Sypher, 1994:268-272) is older than 10 years a more recent article by Schrodt (2002) was also used.

RESULTS

Perceived and Intended Identity. Figure 2 below depicts the perceived identity of the 4 South African banks. As can be seen, all four banks are very similarly perceived by respondents of the survey. There is however, a marked difference on the items of service, reputability, progressiveness, strength, friendliness and trust for Nedbank, which has been rated noticeably lower than the other banks. The banks mark the highest on their perceived success and the lowest on the aspect of aggression.

The following figure uses the same scale to measure the intended identity of the banks. This was done by providing the respondents with the mission statements of the banks. Respondents were asked to read the mission statement for their bank and then to rate the bank on what they thought the mission statement portrayed. Once again, all four banks appear to follow a similar path except for Nedbank. Nedbank scores lowest on their liveliness and the friendliness of their employees. There is also a slight dissimilarity on the portrayal of strength for Nedbank.

Visual Identity

The average (mean) scores and standard deviations of the visual identities of the banks are depicted in the table below. The overall mean and standard deviation are also provided. One respondent has not indicated their specific bank and has therefore not been included. As can be seen, the average score for visual identity leans

more towards the positive side of the semantic differential (3.53). ABSA and FNB are considered more favourably than Nedbank and Standard Bank.

Figure 5: Perceived Identity of the bank

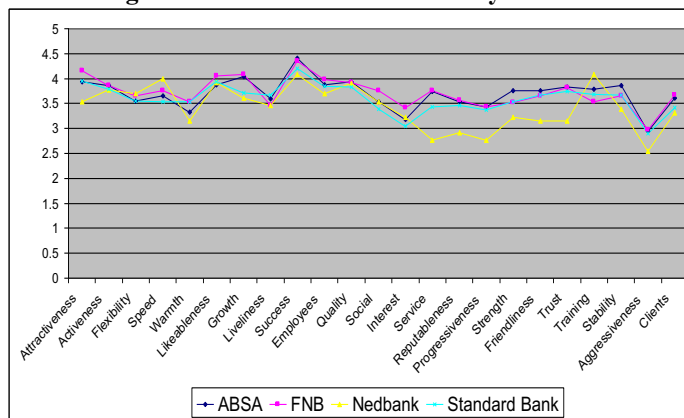


Figure 6: Intended Identity of the bank

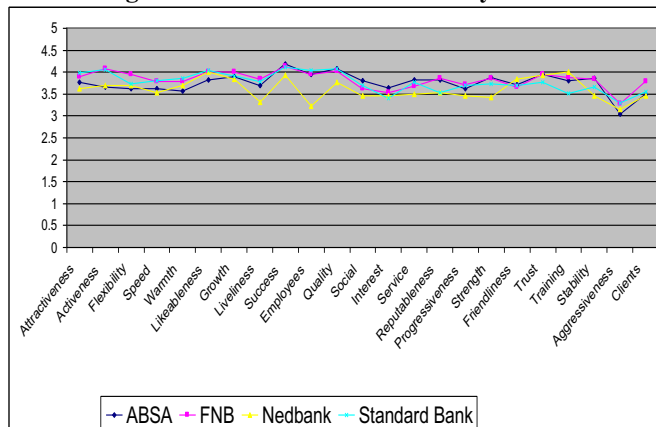


Table 1: Visual Identity by Bank

Bank	N	Mean	Std. Deviation
ABSA	85	3.66	0.80
FNB	37	3.83	0.70
Nedbank	13	3.25	0.55
Standard Bank	64	3.22	0.58
Total	199	3.53	0.74

Identification

Table 4 below depicts the means and standard deviations for males and females according to how much they identify with the banking sector. As can be seen, females identify more with their banks than males. Overall, respondents are seen to identify with their banks, but not to a strong amount (3 = neither agree nor disagree).

Table 2: Total Identification

Gender	N	Mean	Std. Deviation
Male	93	2.96	0.71
Female	107	3.19	0.68

Total	200	3.08	0.70
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HYPOTHESIS TESTS

Hypothesis 1

The first hypothesis (H_1) focuses on the differences between the perceived identity of banks, and the intended identity of banks. The null and alternative hypotheses of H_1 are stated below:

$H_{1(\text{null})}$: There is no difference between the intended corporate identity of banks, as stated in the mission statement, and Generation Y's perceptions of the corporate identity during times of financial crisis.

$H_{1(\text{alt})}$: There is a difference between the intended corporate identity of banks, as stated in the mission statement, and Generation Y's perceptions of the corporate identity during times of financial crisis.

As can be seen in the table below, the means of perceived and intended identity are different. This result corroborates H_1 which states that there is a difference, although it does not say as to the direction of the difference. The descriptive statistics in table 5 indicates that intended identity is more positive ($M = 3.78$, $SD = 0.64$) than perceived identity ($M = 3.69$, $SD = 0.57$).

Table 3: Total Perceived and Intended Identity

	N	Mean	Std. Deviation
Total Perceived Identity	200	3.69	.57
Total Intended Identity	200	3.78	.64

A paired samples *t*-test was conducted to determine whether there is a difference between the intended identity of banks and the perceived identity of banks (Pallant, 2005:209-213). This is because the scale items were measured at an interval level of measurement and are related to the difference between two measures. The assumption of normality can be assumed true, however the assumption that the difference scores are independent of each other can be called into account due to a high correlation value (0.6). The results of the paired samples *t*-test indicate that H_1 is statistically significant at a 0.024 level of significance, which is less than a 0.05 *p*-value.

However, the Wilcoxon Rank Sign test was also conducted because of the high correlation value mentioned above (Pallant, 2005:292-294). This test also showed that the hypothesis was statistically significant at a significance value of 0.04 ($p < 0.05$). As a result, the Wilcoxon Rank Sign Test was the chosen method to test H_1 and the results are shown in table 6 below.

Table 4: Results of the Wilcoxon Rank Sign Test for the difference between Perceived Corporate Identity and Intended Corporate Identity

Total Intended Identity – Total Perceived Identity	
Z	-2.05(a)
Asymp. Sig. (2-tailed)	0.04

a Based on negative ranks.

b Wilcoxon Signed Ranks Test

Since H_1 is non-directional (two-tailed), the above *p*-value is correct and H_1 can, therefore, be accepted. This suggests that the managers of South African banks need to re-evaluate how their mission statements, as direction for the organisation, are conveyed to their employees. Mission statements may be seen as the promise to the banks customers and by not delivering on these promises, a negative perception may be the result. Therefore, employees, as the service deliverers, need to be aware of their bank's mission statement to more effectively deliver on the bank's promises.

Hypothesis 2 and 3

Hypotheses H_2 and H_3 focussed on the differences in the extent to which male and female students are affected by the visual identity of banks and the extent to which they identify with the identity of the banks (identification). The null and alternative hypotheses of H_2 and H_3 are stated below:

$H_{2(\text{null})}$: There is no difference in male and female perceptions of the corporate logo of the banking sector during times of financial crisis.

$H_{2(\text{alt})}$: Female perceptions of the corporate logo of the banking sector are more positive than male perceptions during times of financial crisis.

$H_{3(\text{null})}$: There is no difference in males' and females' identification with the banking sector's identity during times of financial crisis.

$H_{3(\text{alt})}$: Females' identification with the banking sector's identity is more positive than males' identification during times of financial crisis.

Both of these one-tailed (directional) hypotheses were tested at a 5% level of significance ($\alpha = 0.05$).

As both visual identity and identification were measured at an interval level of measurement, the correct parametric significance test is the independent samples t -test (Pallant, 2005:205-209). However, if the assumptions cannot be satisfied, the Mann-Whitney U test can be used as a non-parametric alternative (Pallant, 2005:291-292). The assumptions of the independent samples t -test are as follows: First, it assumes that the variable on which the two groups (male and female) are compared has a normal distribution in both populations. Secondly, it has the assumption that the variable on which the two groups are being compared has an equal variance in both populations (Pallant, 2005:205-209).

By using the Kolmogorov-Smirnov test for normality, as well as by examining histograms and normal probability plots, the assumption of normality was tested. These tests showed that there are departures from normality for women in H_2 and for men in H_3 , thus violating the assumption of normality. Therefore, the non-parametric Mann-Whitney U test must be used to test the two hypotheses.

Table 7 below provides relevant descriptive statistics and also summarises the results of the Mann-Whitney U tests conducted to test H_2 and H_3 .

Table 5: Descriptive statistics and results of the Mann-Whitney U tests conducted to test hypotheses H_2 and H_3

Hyp.	Motive	Gender	n	M	SD	Results: Mann-Whitney U test
H_2	Visual Identity	Male Female	93 107	3.40 3.63	0.74 0.73	Test statistic: 4161.00 1-tailed p -value: 0.02 Conclusion: Statistically significant $H_{2(\text{alt.})}$ accepted
H_3	Identification	Male Female	93 107	2.96 3.19	0.71 0.68	Test statistic: 4047.50 1-tailed p -value: 0.01 Conclusion: Statistically significant $H_{3(\text{alt.})}$ accepted

As the results in the last column of table 7 shows, males and females differ significantly in the extent to which they perceive the visual identity of banks, and the extent to which they identify with the banking sector. In both cases, the stated null hypothesis is rejected in favour of the stated alternative hypothesis.

Since the descriptive statistics of both cases indicate that the sub-group mean differences are in line with the expectations formulated in H₂ and H₃, the one-tailed *p*-values were calculated as follows: one-tailed *p*-value = two-tailed *p*-value ÷ 2.

Therefore, these findings indicate that male and female students differ significantly in their perceptions of the visual identity of banks, as well as in the extent to which they identify with the banks. Specifically, the results indicate that female students perceive the logos of banks in a more positive light, as well as identifying with bank's identities more than male students. Once again, the results are statistically significant, without being practically significant to such an extent as to have a major affect on the banking industry.

These results are useful for management as they can decide whether to accentuate the bond with women in order to sustain this positive relationship during more stable times. The banking sector can also choose to target their messages more towards women than men as these results indicate that females will be more receptive to communications.

DISCUSSION

The main purpose of this article was to discover Generation Y's perceptions of the banking sector's corporate identity during a financial crisis. This study portrays the importance of having a realistic and well-communicated corporate identity, especially during a financial crisis. There is a difference between the intended corporate identity of banks, as stated in the mission statement, and Generation Y's perceptions of the corporate identity during times of financial crisis. Female perceptions of the corporate logo in the banking sector are more positive than male perceptions during times of financial crisis. Females' identification with the banking sector's identity is more positive than males' identification during times of financial crisis.

To determine Generation Y's perceptions of the corporate identity of the banking sector during a financial crisis. This general objective was fulfilled as one discovered the perceptions of Generation Y (both male and female) relative to perceived versus intended identity, corporate logo and identification. Individual items can be looked at on each scale to see which ones scored low and which ones scored high. Also an overall impression of the respondent can be obtained by looking to see if the majority of their answers were scored low or high.

Although the null hypothesis was rejected, the alternative hypothesis was therefore accepted for H₁, H₂ and H₃. It appears that these results are statistically significant but not managerially viable. Reasons for this could be the following:

In some cases perceived and intended identity could be viewed as the same thing, by respondents. Henceforth, the answers for the respective questions would be very similar. On the other hand, it could be viewed that there is a difference between perceived and intended identity. A short explanation of the difference could have been included in the questionnaire. Intended identity is the identity that the organisation wants to get across, then there is the identity that is actually put across. The identity that is actually put across is interpreted by customers, consumers and people who are aware of the brand. This is a very key issue as it relates to what an organisation promises and what an organisation delivers. When promises are not delivered on and customer expectations are not fulfilled, the resulting affect is customer dissatisfaction, which is adverse as organisations lose customers this way (Wilson, Zeithaml, Bitner & Gremler, 2008:111).

With regards to H₂ and H₃ it also appears that the perceptions that males and females have towards the corporate logo of banks and identification does not vary significantly. This means that there is not a large enough difference in the perceptions that males and females have regarding identification and the corporate logo, for organisations to base their managerial decisions on the information.

MANAGERIAL IMPLICATIONS

Although the results are statistically significant, they are not managerially viable. This is because the differences between the groups (males and females) and the measures (perceived versus intended identity) are existent but they are not very large. This could show the banks that both males and females need to be targeted. On the other

hand valuable insight can be gained from individual banks regarding what generation Y, which is one of their target markets, think about certain aspects of their identity. Each individual bank can see what they can improve and what is working well. Banks are also able to see where their competitors are excelling.

LIMITATIONS

The study wanted to ensure that a wide range of ethnic groups were included as respondents. The questionnaire asked the respondent to indicate their first language (the language spoken at home). This does not give a clear indication of ethnicity or race. As someone might be Coloured, Asian, Indian or African yet still speak English at home. It can be said that language is not a clear indicator of race. The majority of our respondents fell into the English and Afrikaans category, but this category consisted of all races and not only the Caucasian race. The results might be misinterpreted to look like the majority of respondents were from the Caucasian race. As our study was not dependant on there being different ethnic groups, this did not have a negative effect on our findings.

It is understood that four banks cannot really represent an entire banking sector. From a South African perspective the top and four most popular banks that dominate the market share were used. These include ABSA, FNB, Nedbank and Standard Bank. An article by Van Heerden (2004:24) also used these four banks as the focus of their research. In this case it is also important to take the perspectives of the individual banks into account. For this reason the Results section (Section 4) of this article has delved into some of the responses concerning the different banks.

The Cronbach's alpha of 0.46 for the corporate logo (which relates to H₂) is not at a sufficient level and is regarded as a limitation. A sufficient level being 0.70 or above. Another concern is that the Item-Total Correlation is also really low. A reason for this could be because only five items were used to measure males' and females' perceptions of the corporate logo. Perhaps these five items are not related and a different group of items could have been bundled together. By conducting a factor analysis it was determined that the scale was multi-dimensional. The two items, noticeability and style, have a much higher Cronbach's alpha of 0.66. Another two items, attractiveness and modernity, are also related and obtained a Cronbach's alpha of 0.697. By reuniting the five items to the original scale used in Van Heerden and Badenhurst (2004), a Cronbach's alpha of 0.88 is achieved. Thus, showing the high level of internal consistency that the entire scale holds.

It has been noted the original measurement scales that the data collection instruments were based on, were a few years old and perhaps outdated. For this reason more recent articles were found that were based on these original measurement scales. This is the case with Cheney's Organisational Identification Questionnaire (Rubin, Palmgreen & Sypher, 1994:268-272). In the case of Van Heerden and Puth's (1995:15) 30 item semantic differential scale, a newer version, dated 2004, has been released.

The measurement scales for question 2, 3 and 4 of the questionnaire were based on a previous research article by Van Heerden and Puth (1995:15), which investigated the corporate image through the corporate identity of South African banking institutions utilising a 30-item, semantic-differential scale. The article by Van Heerden and Badenhurst (2004) achieved a Cronbach's alpha of 0.92, indicating that the scale is a reliable measuring instrument. A further indication of the reliability of a scale is an item-total correlation of the individual items which is above 0.3 for each item. *Comparatively, in this study (concerning Generation Y's perceptions of the banking sector's corporate identity during a financial crisis)* a Cronbach's alpha of 0.89 was obtained for perceived identity and 0.93 for intended identity. These are satisfactory results as they are high.

An adapted version of Cheney's Organisational Identification Questionnaire (Rubin, Palmgreen & Sypher, 1994:268-272) was used to assess the respondents identification with a certain bank. The article by Schrodtt (2002) has a consistently high Cronbach's Alpha of 0.94. As the questionnaire has been slightly adapted, minor variations are to be expected. Comparatively, in the present study (concerning Generation Y's perceptions of the banking sector's corporate identity during a financial crisis) the Cronbach's alpha for identification was 0.84 which is still sufficiently high.

A last limitation of this study is the focus on Cronbach's alpha values as a means of reliability. This is acknowledged because other methods of reliability and validity were not used.

RECOMMENDATIONS FOR FUTURE RESEARCH

There are opportunities for further research, especially Exploratory Research. "Exploration deals with developing concepts more clearly, establishing priorities, developing operational definitions and improving the final research design." (Cooper & Schindler, 2008:145). Hypotheses can be formulated comparing the different banks, these being ABSA, FNB, Nedbank and Standard Bank. All four of these can be compared or alternatively any two could be compared. The banks can be compared on the four main constructs being, perceived identity, intended identity, identification and the corporate logo. Examples include ABSA having the highest level of identification. In this case a table can be created which divides up the different banks. Each bank can also be compared on gender differences.

Hypothesis can also be formulated concerning the different age groups and compared in relation to any of these four constructs. Lastly, the different languages that one speaks can be compared on each of the four constructs.

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FRANCHISEES, CHANGE, AND THE LIFE CYCLE

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ABSTRACT

By virtue of the franchisor-franchisee relationship a franchise is neither a small business nor a large corporate and more aptly viewed as a hybrid organizational form. Despite this anomaly the franchise still has to contend with the standard business challenges including constant change in the operating context. Mindful of the multiple sources of change that could impact on the franchise, and the paucity of research in this regard, the current study set out to explore the nature of organizational change experienced at the level of the franchise. Twenty-one (21) franchisees of a large retail institution participated in a qualitative study which utilized a semi-structured interview schedule for data gathering. Franchisee narrative was subjected to content analysis and a multitude of change themes were extracted. The findings revealed that franchises are subjected to an extensive array of changes originating both external and internal to the franchisor. Moreover, it was observed that the salience of change phenomena life cycle stage-specific. The implications of the study are briefly indicated.

INTRODUCTION

Franchising has become a popular and effective business format and its prolific growth (Bordonaba-Juste & Polo-Redondo, 2008; Dant, 2008; Knight, 1986; Michael & Combs, 2008) has generally exceeded expectations (Knight, 1986; Rajagopal, 2007). This is particularly true for the retail sector where most of the growth in the franchising concept has been recorded (Rajagopal, 2007). Indeed, it is regarded in some quarters as the world's fastest growing form of retailing (Dant, 2008). Franchising generally refers to the business form and practice whereby an entrepreneur (the franchisee) acquires the right (or license) from another business (the franchisor) to use the latter's brand name or trademark(s) and its business system to distribute goods or services (Castrogiovanni, Combs & Justis, 2006; Michael & Combs, 2008). It is also generally recognized that the distribution of these products or services occur in accordance with franchisor-established standards and practices (Emerson, 1998). The franchisee typically pays an initial entry fee and thereafter ongoing royalties and advertising fees to the franchisor (Combs, Michael & Castrogiovanni, 2004; Grünhagen & Dorsch, 2003). Franchising assumes the character of a symbiotic relationship where both the franchisor and the franchisee shares the benefits and burdens of this unique business relationship – a decidedly distinctive form of business collaboration (Davies, Lassar, Manolis, Prince & Winsor, 2009) where, it is argued, "...everybody gains and no one loses" (Newby & Smith, 1999).

The contribution of franchising to business growth, employment creation and economic development is now widely acknowledged (Barthélemy, 2009; Rajagopal, 2007). The magnitude of this contribution is suggested, for example, by the presence of 1500 franchising chains in the USA alone. At the time of reporting, these franchise chains comprised 760 000 franchises, provided employment to approximately 18 million employees and collectively generated a total annual economic output in excess of US\$1,53 trillion (Dant, 2008). In the United Kingdom and the franchising contribution by 1997 was £6.5billion compared to £0.9 bn in 1984 (Kirby & Watson, 1999). Franchising similarly contributed significantly to the Australian economy where more than 17 000 franchised businesses generated AU\$32 billion in annual sales by 1999 (Hing, 1999). The contribution of franchising, however, is not limited to the economic growth domain. It has become an important avenue for the endeavours of enterprising individuals (Michael & Combs, 2008) and a primary force for small business creation (Newby & Smith, 1999). It was also argued that franchises 'absorb' and hence reduce much of the risk associated with the franchisor business (Minkler, 1992) while simultaneously serving as a 'test site' where many of the innovations that the franchisor requires to adjust to a changing operating context, are generated and effected (essentially tested) at the level of the franchisee (Kaufman & Eroglu, 1999).

THE NATURE OF FRANCHISING IN SOUTH AFRICA

Franchising also garnered substantial interest in South Africa, in much the same way that it has in other parts of the world. While the roots of the franchising concept is traced to the USA during the 1930s and 1940s, the origins of the South African franchise environment dates back to the late 1950s, when franchise opportunities were limited to the fast-food sector. In the decades that followed the South African franchise environment continued to expand across various industry sectors, to the extent that South Africa's current franchising share of the global retail and services markets amounts to 12% and is growing at around 13% annually. In 2008 the Standard Bank Franchise Factor, a survey monitoring the growth of franchising in South Africa, observed that the sector's turnover grew by 37% over a two-year period, with 81 of the 531 existing franchised systems located in the retail business category (Martinez, 2009). The survey revealed healthy growth in the number of franchise systems, with 22 new concepts introduced in the retail industry since the previous survey in 2006. The largest contributors were baby, confectionary, and clothing and shoe operations. At the time of reporting 64 franchise brands were traded in South Africa through 4603 outlets (Berndt, 2009).

South African franchise systems follow one of two distinct models of franchising namely *product/trademark* franchising and *business format* franchising. The former focuses primarily on the brand and product offered and the role of the franchisor centers on controlling the product range, service delivery, guarantee and warranty issues, and the provision of product training and some advertising support. Within this model each *franchisee* develops his administrative functions, processes and controls to his specific business, with very little operational support from the franchisor. In the business format franchising model a "*... franchise is a grant by the franchisor to the franchisee, entitling the latter to the use of a complete business package containing all the elements necessary to establish a previously untrained person in the franchised business and enable him or her to operate it on an ongoing basis, according to guidelines supplied*" (FASA, 2007). In this business model the roles and in particular the relationship of the franchisor and franchisee, at least initially, are quite different. In addition to the provision of a comprehensive (and tried and tested) blueprint for the successful operation of the business, the franchisor is obliged to provide substantial initial and ongoing training and support to the franchisee. And, while it is generally acknowledged that the success of the franchise concept hinges on the quality of the relationship between the franchisor and franchisee, with each party honoring its obligation to the other (Berndt, 2009; Bordonaba-Juste & Polo-Redondo, 2008) this relationship is often also a source of challenge (and tension – cf. Cox & Mason, 2007). This is particularly relevant to the South African setting where tumultuous changes have brought substantial pressure to bear on the cost structures, operating efficiency and ultimately the sustainability of businesses.

Organisational change and the franchisee

The advancement of the sustainability agenda, insofar as organisations are concerned, however, has to occur in the face of continuous pressures for organisational change and against a backdrop of an increasingly competitive operating environment (Van Tonder, 2009). Effectively dealing with such organisational change has become crucial to organisational survival (cf. By, 2005; Luecke, 2003) and present institutional managers with a formidable sustainability challenge. Change has to be embraced to enable the organisation to adapt to environmental discontinuities and so ensure its continued viability and ultimately survival. Ineffectual responses to change (e.g. because of inertia) by contrast, are invariably problematic and in such circumstances change becomes a significant liability (George & Jones, 2001). With an escalation in company liquidations and rationalisations (Van Tonder, 2006), a situation unlikely to improve soon (cf. Kavanagh & Ashkanasy, 2006), organisations have little choice but to pay careful attention to change dynamics and engage these in a calculated and considered manner. Organizational longevity or sustainability is facilitated when the organisation aligns with environmental conditions (Armenakis & Bedeian, 1999), which is secured when the organisation through its management responds in an appropriate adaptive fashion – typically any of a range of responses including rationalisations, restructurings, business process redesign initiatives, other forms of reorganisation, mergers and acquisitions, revised strategies or strategic repositioning, new technology adoption and various other forms of related large-scale or major change initiatives. However, the reported success rates for organisational change initiatives are exceedingly poor (Van Tonder, 2004) and knowledge of organisational change phenomena in various areas (e.g. its measurement, micro dynamics and impact) is still substantively lacking (By, 2005; Burnes,

2003; Hacker & Washington, 2004; Kohler, Munz & Grawitch, 2006). This is also true for research conducted on change in small businesses where, in addition, the organizational change concepts usually applied in large organizations (e.g. reengineering) do not necessarily apply (Teeter & Whelan-Berry, 2008).

If we then consider the franchisor-franchise business form we observe that the franchisor fits the profile of a large corporate, but that its primary operational enactment occurs through franchises that *approximate* the notion of a small business more than it does that of a large corporate, yet it also forms part of such a corporate (the franchisor). One of the ramifications of this complexity, is evidenced, for instance, in a recent ruling by the courts in the USA that upheld the premise that the franchisor is the owner of the franchise business and *not* the franchisee (Dant, 2008). This then is also the primary reason why most research to date has focused on the franchisor rather than the franchisee Dant, 2008; Michael & Combs, 2008).

The domain of business format franchising is not excluded from the pervasiveness of change in the operating context generally, and business format franchising is affected as much as any other business form. From one perspective it can be argued that if the franchisor-franchisee relationship is functioning optimally, the franchisor may emerge as a powerful buffering element that may shield the franchise and franchisee to an extent from environmentally induced change events, leaving the latter to contend only with internal i.e. operational and immediate situational (franchisor-related) changes. However, as indicated, the franchisor is itself not immune to the effects of environmental change. The 'buffering role' with regards to franchisee change, consequently, cannot be absolute and environmentally-induced changes in the franchisor-organization will translate into change for the franchisee. Notwithstanding, firstly, the probability of change in the franchise organization as a consequence of operating context and, secondly, changes in the franchisor organization, research on the organizational lifecycle suggests that changes may occur in the franchise, in the third instance, as a consequence of the natural growth and decline process or life cycle of the franchise organization itself.

Although a fair amount of research has been done on the organizational life cycle and several of these studies have explored the life cycle dynamics of small businesses (Masurel & Van Montfort, 2006; Rutherford, McMullen & Oswald, 2001; Teeter & Whelan-Berry, 2008), studies that actually focus on life cycle stages as a particular form of *change* in franchises, are limited. Moreover, studies on the life cycle of small businesses often generate inconclusive or ambiguous results. Dodge and Robbins (1992) for example noted statistically significant relationships between identified life cycle stages and clusters of (distinctive) organizational problems in small businesses, while Dodge, Fullerton and Robbins (1994) observed that the life cycle was less of an influence than competition (a contextual variable) in small businesses' problem perception. All these studies succeed in doing, are to reaffirm the unremarkable namely that change may well be a consequence of the business, the context or both. However, a recent case study by Teeter and Whelan-Berry (2008) indicated that multiple changes and tensions characterize the transitions of the small professional firm as it progresses to maturity. Of particular significance, is a study by Masurel and Van Montfort (2006) that focused specifically on change over the life cycle of the 279 small professional firms involved in their study. The authors found that sales diversification, labor force differentiation, and labor productivity increased over the first three stages of the life cycle and decreased during the last stage (their four-stage model emerged empirically from the data) – suggesting that characteristic changes and transitions are associated with pertinent stages of growth and decline in these smaller businesses.

Though franchises are hybrid organisations that form part of a larger franchisor organisation, they largely resemble small businesses and scholars often turn to small business research as point of departure for their own research, mostly as a result of the paucity of research involving franchisees. Indeed, in considering the causes of failure among franchises, Michael and Combs (2008) indicate that very little has been done to gain an improved understanding of those factors that contribute to franchisee performance – echoing the view that research on the consequences of franchising for franchisees has been rare (Combs, Michael & Castrogiovanni, 2004). Mindful of the possible sources of change operating on the franchise, the *purpose* of the current study was to explore the nature of organisational change experienced at the level of the franchise. More specifically, the study wanted to establish, *firstly*, what organisational changes are salient for franchisees (where 'franchisee' refers to the owner-manager of the franchise)? The study *secondly* aimed to determine the dominant source of noted changes, where a distinction is made between *external* (environmentally induced change that originate beyond the boundaries of the franchisor organisation) and *internal* (intra-organisational i.e. changes that originate within the franchisor organisation) sources of change. In the *final* instance it aimed to establish if the sources of prominent (salient)

changes nominated by franchisees differed for franchises residing in different life cycle stages. Being an exploratory study, it is anticipated that the results of the study will create a platform for more focused research, but also prove mutually beneficial to franchisors and franchisees. In this regard the improved understanding among franchisor managers and franchisees, of the changes experienced at the level of the franchise, may contribute to a reduction in the disruptive and counterproductive influences of change, and contain or regulate the incidence of certain forms of change. The latter should meaningfully improve the operational functioning and efficiency of the franchise and ultimately contribute to more sustainable franchise models.

EMPIRICAL STUDY

Design and Methodology

The setting for the study is the franchise environment (division) of a major supermarket retailer in and around South Africa, which comprises inter alia 255 owner-run franchise businesses nationally and geographically dispersed across the country. These franchises range in age from 2 months to 16 years in maturity. Although the franchisor recognises different categories of franchisees, largely on the basis of franchise age, this categorisation currently do not impact on or transfer to business operations as differentiated franchisor policies, procedures and practices for different categories of franchisees. Indeed, the franchisor pursues a single, uniform approach in its dealings with franchises which also applies to the introduction and management of organisational change and the change support provided at the level of the franchise / franchisee.

The exploratory nature of the study, specifically the focus on franchisees' perceptions of changes that they experienced and regarded as salient, invoked an interpretive research paradigm and the associated qualitative research methodologies. Epistemologically, the data needed for analysis purposes were franchisees' accounts of experienced change and the meanings they ascribe to these events. A structured interview schedule, assuming the form of a written, open-ended survey, was used to obtain written narrative from franchisees. Of the four open-ended questions posed to the respondents, two are pertinent to the current study. These required franchisees to indicate the organisational changes that were most salient to them (during the past 6 months), and the impact of these on their businesses. The survey afforded them the opportunity to add any additional comments. After securing approval for the study from the executives overseeing the franchisor division, the purpose, research process and involvement of franchisor representatives and franchisees in the research were communicated in writing to the franchise division and all franchisees. Five (5) primary stages in the life cycle of the franchise business were then identified by the franchisor managers, assisted by the researcher. The franchisor managers relied essentially on the 'age' of the franchise operation and behavioural and financial indicators they have come to recognise and associate with franchises in the respective categories (see in Table 1).

Table 1: Franchisor-identified stages in the life cycle of the franchise

Franchise Life cycle stages	Brief description	Franchise start-up date between...
Stage 1: Gestation	This stage entails the pre-opening preparation of the franchise 'store' (business) and incorporates all facets from the identification of the site, to obtaining approval from the franchisor and the actual launch / opening of the store.	Sep 2009 – Sep 2010
Stage 2: Entrepreneurial	The initial, business start-up phase. The franchisee (and franchise) is simultaneously excited and overwhelmed, anxious, and uncertain about the 'way things should be done'. Requirements, systems and procedures have not yet been internalised and entrenched ("bedded down").	Mar 2008 – Aug 2009
Stage 3: Methods and Systems	The franchise business is in place and operating to expectation. The franchisee's focus is largely directed at refining systems and methods, and on achieving margins.	Mar 2004 – Feb 2004

Franchise Life cycle stages	Brief description	Franchise start-up date between...
Stage 4: Maturation / Decline	The franchise business is by now a known quantity and operating effectively - the business is essentially on 'cruise control'. The management team is established and demands on management innovation and capacity are minimal. The franchisee is not innovating or investing the same degree of effort as he/she did in previous stages and could lose interest (experience boredom). In this stage the original debt incurred when purchasing the franchise ('store') in all probability has been repaid and the franchisee often experiences newfound wealth. This situation could lead to a stage of renewal or decline.	Mar 2001 – Feb 2004
Stage 5: Renewal	When reaching this stage, the franchisee is usually confronted with the choice (decision) of revitalising (and revamping) the business or putting it up for sale. This stage typically prompts the onset of the next 'entrepreneurial' stage and the life cycle continues at a new level of functioning.	Mar 1993 – Feb 2001

Purposive sampling was employed as a means to secure a group of franchisees for participating in the study. This was accomplished primarily on the basis of the average financial turnover of the franchise per month, calculated over a 13-month period, for each of the categories (stages) except stage 1. Those franchisees in stages 2 to 5 whose turnover clustered closest to the mean (financial turnover) for the category (stage) were identified and five franchisees per category were approached. All the approached franchisees agreed to participate. Prospective franchisees i.e. those applicants in the process of securing a franchise business were approached but only one participant had not previously owned a franchise store (a qualifying condition). Equal numbers of franchisees who best reflected the features of the category, were sought as this would enhance transferability and confirmability of the findings. Twenty-one (21) franchisees were eventually secured for the study. Prior to the respondents completing the survey, they were again informed that participation was voluntary, that they would remain anonymous at all stages of the research and that all individually nominated information will remain strictly confidential. This was done to facilitate accuracy and authenticity, and to ensure that data were of maximum value.

The most salient change themes were identified and prioritised for each of the pre-defined franchise business categories with the aid of basic content analysis. This was accomplished through inductive category coding and frequency counts for the different changes mentioned in the narratives of franchisees. From this the various change themes emerged, which were then prioritised per life cycle stage. This procedure is consistent with Miles and Huberman's (1994) view that the understanding of a phenomenon is enhanced when objects are clustered together and further conceptualised on the basis of similar patterns or characteristics. To minimise interpretation errors, two colleagues skilled in content analysis (a university lecturer and a doctoral candidate) were requested to read through the data and to consider the correctness of interpretation during the content analysis. Where interpretation differences were encountered, these were resolved through discussion and consensus.

Findings

The results of the content analysis are summarised in Tables 2 and 3. The emergent change themes that characterise the world of the franchisee, the frequency with which they were cited for each life cycle stage, and the overall frequency count and rank for the change themes, are presented in Table 2.

Table 2: Frequency: Citation of change themes per life cycle stage

N o.	Change Theme ^a	f^b Stage 1	f Stage 2	f Stage 3	f Stage 4	f Stage 5	Tot al	Ran k
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N o.	Change Theme ^a	<i>f</i> Stage 1	<i>f</i> Stage 2	<i>f</i> Stage 3	<i>f</i> Stage 4	<i>f</i> Stage 5	Tot al	Ran k
1	Electricity crisis Shortages of electricity/load-shedding; rise in costs; decreased disposable income (due to electricity price hikes)	-	1	5	1	4	11	1
2	Effect of Global Recession Economic downturn; unemployment; customers buying less	-	1	3	1	4	9	2
3	External Financial Factors Increase in interest rates; increase in fuel prices and food inflation	-	1	-	2	5	8	3
4	Internal financial management Projected turnover not achieved; marginal store / business; loss of margin; pressure on gross profit; change in loyalty rebate payment	-	4	2	-	-	6	4
5	In-store management Streamlining SKU's; sourcing from other suppliers (fruit & vegetables from market); shrinkage; proper stock control; involvement in store (being hands on); audits	-	2	1	3	-	6	4
6	Centralized distribution Change over process to centralized distribution; Distribution Centre / Warehouse problems	-	1	1	-	3	5	5
7	IT Solutions Implementation of SAP; Problematic IT systems	-	1	2	1	-	4	6
8	Centre impact Centre re-design / extension / revamp; Non-delivery on promised marketing; Accommodating additional parking bays	-	1	1	1	1	4	6
9	Increase in expenses Security Costs; increased input costs; increased labour costs	-	1	2	-	-	3	7
10	People management / staff Resignations due to staff being poached; decline in morality of staff; Staff crime leading to termination and vacant positions	-	1	-	-	2	3	7
11	Increased competition in catchment area Competitor stores; same brand stores	-	-	1	1	1	3	7
12	Customer relations Effective management of the checkouts; selling basic commodities at the right price; building customer loyalty	-	3	-	-	-	3	7
13	Re-branding exercise Brand re-launch; change in marketing strategy	-	-	2	-	-	2	8
14	Store Maintenance Equipment packing up; store revamp	-	-	1	-	1	2	8
15	Store set-up / start-up Taking over a corporate store; new site identified	1	1	-	-	-	2	8

N o.	Change Theme ^a	f^b Stage 1	f Stage 2	f Stage 3	f Stage 4	f Stage 5	Tot al	Ran k
16	Pricing Competitors cutting prices; fighting price perception that opposition is cheaper	-	2	-	-	-	2	8
17	Business additions / store extensions Additions e.g. Liquor Store opening adjacent to store; cameo machine installed	-	-	2	-	-	2	8
	Total frequency	1	20	23	10	21	75	-

Note. Frequencies refer to the number of franchisees that nominated the specific change as being of importance for example a total of 11 franchisees indicated the electricity crisis as an important and salient change.

^aIllustrative commentary accompanying the cryptic change themes, were extracted from the narrative provided by respondents. ^bIn this stage the franchise does not yet exist as a reified entity (despite its paper-based existence). Virtually all the changes that established franchisees experience do not apply. A single prospective franchisee provided commentary.

From Table 2 it is evident that the three *most salient changes* in the lives of franchisees at the time of the research were essentially economic and financial in nature, thus affecting the essential core of the business (the electricity crisis, global recession and external financial factors). The incapacity of the national electricity provider to service the needs of business, which ranks at the top of the list of noted significant changes, surfaced because of its pronounced financial impact on the franchisee ('electricity price hikes and reduced disposable income, but also due to store 'down time' during electricity outages and inability to trade as well as losses due to refrigerated food products going to waste).

The top-ranked (salient) changes, all originate in the *external environment* i.e. beyond the institutional boundaries of the franchisor, suggesting minimal franchisor influence over these changes (as opposed to franchisee influence), while the fourth ranked changes (change themes 4 and 5) assume a more *internal* character, relating more to operational change dynamics. Changes impacting on the franchisees however generally originate in both the external and internal environments, with more change emerging from an external than an internal origin (see Table 3),

Table 3: Frequency: Citation of change themes per life cycle stage

Life Cycle Stage	Source of change: 'External'		Source of change: 'Internal'	
	f^a	% ^b	f^c	% ^d
1	-	-	1	100
2	12	60	8	40
3	12 ^e	48	13 ^e	52
4	8	80	2	20
5	18	85.7	3	14.3
Total	50	65	27	35

Note. A description of life cycle stages is provided in Table 1. *External* changes refer to changes that originate beyond the boundaries of the franchisor organization e.g. the electricity crisis or the effects of the global recession. *Internal* changes refer to change that originate within the franchisor organization e.g. changes in IT systems or distribution centers.

^aFrequency with which *external* changes were nominated for a given life cycle stage. ^bCitation frequency for *external* changes expressed, as a percentage of total change citations per life cycle stage. ^cFrequency with which *internal* changes were nominated for a given life cycle stage. ^dCitation frequency for *internal* changes, expressed as a percentage of total change citations per life cycle stage. ^eTwo changes were deemed to originate both in the external and internal environments, resulting in a total frequency of 25 for stage 3 compared to the 23 indicated for stage 3 in Table 2.

Inspection of Table 2 further suggests that the perceived prominence of organisational changes differ for the respective franchisee life cycle stages. The three most salient changes appear to be more relevant to franchisees

in the *methods and systems stage* (stage 3; $f = 5$) and the *renewal stage* (stage 5; $f = 4$), suggesting greater sensitivity and potential vulnerability during these stages. At the same time it is intuitively logical that change(s) affecting the internal financial dynamics of the franchise (ranked 4) would be more pertinent to (mostly) franchisees in the *entrepreneurial stage*¹ (stage 2, $f = 4$) as a consequence of the unique demands associated with rapid growth in this stage. This is true to a lesser extent for franchisees in the *methods and systems stage* (stage 3, $f = 2$) (stage 2). In-store management changes (also ranked 4) similarly appear to be more salient to franchisees in the first stages of the life cycle, suggesting that the franchise business may be more prone and vulnerable to these types of changes in the early stages of the life cycle. Changes in the franchisor distribution system (theme 6), the information technology systems in use (theme 7) and the centers in which franchises are located (theme 8) are, understandably, prominent to all franchisees regardless of life cycle stage. Overall, total frequency counts per life cycle stage indicate that it is only the *maturation / decline stage* where change generally appears to be less of a challenge ($f = 10$ compared to 20, 23 and 21 for stages 2, 3 and 5 respectively). Those changes regarded as salient, however, differ in character for the different stages in the life cycle. This observation is echoed, more generally, by the ratio of external to internal changes per life cycle stage (Table 3). This is consistent with the observation that changes originating in the internal (i.e. franchisor) environment appears to be slightly more prominent than changes originating externally to the organization during this stage in the franchisee life cycle. By contrast changes originating in the *external* environment are substantially more salient to franchisees, and increasingly so, in the progressive sequence of stages from 2 to 4 and 5.

DISCUSSION

The study set out to explore the perceived salience of different organizational changes at the level of the franchisee and whether these were predominantly external or internal to the franchisor. At the same time it wanted to determine if the perception of salient change was influenced by the life cycle stage in which the franchise found itself. At a general level the findings revealed that organizational change at the level of the individual franchise is pervasive and assumes multiple forms that originate externally and internally to the franchisor organization. The findings suggest useful though preliminary perspectives on the nature of perceived change at the level of the franchisee and points to a consideration of franchisor strategies in relation to, firstly, the origin of the experienced changes and secondly, the life cycle stage in which the franchise is located. These perspectives are briefly elaborated.

Internal-external change and the franchisor-franchisee relationship

Franchisee commentary on the salience of organisational changes confirms the intrusive nature of change originating in the operating context of the franchisor and, indeed, the vulnerability of individual franchises to these environmental jolts. At the same time these observations also suggest that the notion of a franchisor buffering role between the external environment and the franchise does not materialise simply because of the nested existence of the franchise within the structure of the franchisor (the legitimate ‘owner’ of the franchise – cf. Dant, 2008). The impact of the economic factors and global financial dynamics in this case example does not appear to be cushioned by the franchise’s encapsulation within a franchisor business format model.

The first two change themes (Table 2) approximate a radical Type II change (cf. Van Tonder, 2004; 2008; 2009) and, being an external environmental change, should affect the franchisor and franchisee equally. While the franchisor, seemingly, is not able to mitigate the experience of ‘external’ change at the level of the franchise, organisational changes originating within the formal boundaries of the franchisor institution suggest an area where the franchisor could alter the franchisees’ (franchises’) experience of change. Salient organisational changes ranked fourth to seventh (Table 2), all reside within the ambit of the franchisor’s control. These change dynamics could significantly compound the impact of external “environmental jolts” (change themes 1 to 3, Table 2) on the franchisee.

However, it is argued that the franchise’s experience of external change can be buffered through direct franchisor interventions designed to minimise or delay the impact of external change on the franchisee (effectively ‘shield’ the franchise from the change or its effects). Such a buffering role could also be interpreted as bolstering

(creating, enabling or strengthening) franchisee capacity for attending effectively to externally-imposed change. This can be accomplished in any of several ways. From the results of this study it would appear that internally-generated changes i.e. changes initiated by the franchisor and relating to, or impacting on... franchisee *financial practices / management* (change theme 4, Table 2), operational or *'in-store' management* (change theme 5), changes to the *distribution practices* of the franchisor (change theme 6) and changes to *franchisor systems* – specifically information technology systems (change theme 8) are pronounced. These change dynamics, which are ranked fourth to seventh after the 'external' changes, are essentially within the control of the franchisor organisation. Moreover, while the franchisor is not entirely responsible for the change dynamics conveyed by change themes 9 to 16 (Table 2), it 'owns' a significant portion of the change and / or performs a major instrumental role in the onset of these dynamics (e.g. by opening up other non-franchised, same brand businesses in the same catchment area; in the changes it introduces in its marketing strategies and campaigns, its negotiations with the labour unions; product pricing practices and policies). If it is acknowledged that franchisor policies in respect of franchisees often impede franchisee performance (cf. Michael & Combs, 2008) it follows that a considered franchisor approach and strategy when contemplating the introduction of changes may prove less problematic than that which contributes to the reported experience of change by franchisees in the current study. Such an approach can be accomplished through differentiated timing and implementation strategies, for example delayed or staggered change implementation carefully designed to align with franchise life cycle stage. A consequence of the latter will be that franchise (franchisee) resources such as focus, energy, time, and liquidity and cash flow, among other, that are otherwise tied up in internal organisational changes could be 'released' or made available for contending with those externally-induced changes over which the franchisor may have less control. Conversely, by not consciously considering the simultaneous impact of both external and internal changes in its change policies and implementation practices, the franchisor effectively increases the vulnerability of the franchise and inadvertently increases the level of risk for the franchisee.

Situated change perception: The franchise life cycle

Notwithstanding substantial parallels between Masurel and Van Montfort's (2006) conceptualisation of the life cycle of a small professional firm and that employed in the current study, the focus was not on validating the life cycle trajectory of the franchise but rather to qualitatively explore variations in perception – in this instance in respect of experienced organisational change. The results furthermore reveal patterns in franchisees' perceptions of organisational change that broadly align with these franchise categories. This is consistent with the Dodge and Robbins' (1992, p. 33) finding that the owner-manager has to contend with different problems during the different stages of the small business life cycle. This, they argue, points to different operational contexts that are evoked. In the current study four primary patterns in the perception of salient change are noted.

At a general level the frequency with which changes are cited across the full spectrum of change themes by franchisees in the *methods and systems* stage (Stage 3, $f = 23$, Table 2) it would seem that this stage is one of greater susceptibility to change and potentially more troublesome to franchisees. Although total change citations in the second and fifth stages do not differ substantially from the methods and systems stage ($f = 20$ and $f = 21$ respectively), the changes cited by franchisees in these stages are concentrated to a greater extent in specific areas. By contrast franchises in the *maturation / decline* stage (Stage 4, $f = 10$) appear the least affected by the changes in the franchisee environment – indicated by the low frequency of change citations ($f = 10$). One plausible account for this dynamic may relate to the level of competence and mastery that has been achieved by the franchisee and franchise at this point in the life cycle. The likelihood of encountering entirely novel challenges is remote, the franchisee has appropriate financial and logistical management capacity (unlike franchisees in the entrepreneurial stage) and has developed some skill in contending with the wide range of change challenges that are encountered during the methods and systems stage (stage 3). Secondly, while organisational changes originating in the external environment is felt by all franchises, the effect of these changes (notably change themes 1 to 3) is pronounced for the more established and mature franchises in the *methods and systems* and *renewal* stages and less marked for franchises in the early *entrepreneurial* stage. The disruption imposed by such extreme changes is likely to be greater and more damaging for established, competing and finely balanced businesses compared to start-up or young franchises experiencing rapid growth and that are still in the process of establishing a market presence and consequently not yet exposed to the full competitive force of similar businesses in the operating context. A third pattern or trend is suggested by the frequency with which changes impacting on or relating to financial and operational management in the franchise

are cited by franchises in the *entrepreneurial* and *methods and systems* stages, while no such citations are recorded for franchises in the *maturation/decline* and *renewal* stages (stages 4 and 5, Table 2). This suggests that these younger franchises may not as yet have developed the deep, internalized understanding of the business and the accompanying capacity that enables effective management of these challenges. Finally, several changes are perceived as disruptive by franchises *across all stages*. These relate to information systems changes introduced by the franchisor, physical and or contractual changes introduced by the shopping centre or complex management, in which the franchise is a tenant, and changes to the competitive environment in which the franchise operates (see change themes 6 to 8, 11; Table 2). It can be argued that these challenges relate to the core structure of the business format franchising model (franchisor-franchisee business) and that systems, facilities and competitive architecture are critical success factors in the overall sustainability of such businesses.

These findings suggest that the salience of organisational changes at the level of the franchisee is to a large extent situation-dependent, more specifically, grounded in the life cycle stage in which the franchise finds itself. There is consequently substantial merit in applying life cycle theories to the franchise domain. Moreover, the need for a differentiated franchisor approach not only in terms of the conceptualisation, structuring and implementation of change initiatives but certainly in terms of the nature and support provided to franchises during such changes, is bolstered by the results recorded in this study.

Notwithstanding the former, a few caveats need to be borne in mind. The exploratory objectives and consequently the methodology employed in the study precludes generalization of the obtained results and at best suggests transferability of perspectives to sufficiently similar franchisor settings. Although the franchise life cycle obtained from franchisor managers has some implicit validity that is born out to a degree by the results of the current study, the notion of conceptually distinct franchise life cycle stages need to be subjected to rigorous empirical testing. In addition to the research implied by these limitations, several potentially productive future research avenues are suggested by the current study. Generally franchises have not received meaningful research attention and available research tended to focus more substantively on the franchisor as opposed to the franchisee. Not only does this suggest a broadening of the research in this rapidly growing and important area of economic activity, but it also points to a deepening of knowledge in several areas pertaining to the nature of the franchise business form. These include the unique organizational form of the franchise (being a hybrid small business); the complexity and dynamics introduced by the existence of a regulating 'owner' which seemingly does not buffer the franchise from extreme environmental dynamics; the interpretation and enactment of the franchisor-franchisee relationship by both parties (a critically important sustainability factor), and the growth, decline and rejuvenation i.e. the life cycle of the franchisee.

The contribution of the current study consequently resides in the awareness that it creates for the multiplicity of changes that characterize the day-to-day functioning of franchises. Unlike other small businesses, franchises do not only contend with the typical changes (market dynamics) of a small independent business, but also have to deal with and incorporate franchisor-induced changes, all of which pose potential sustainability challenges to the franchise. The study furthermore suggests the importance and utility value of life cycle theories of organizational (franchise) functioning and development, especially in the franchisor-franchisee relationship where franchisor policies in most cases do not differentiate among franchisees on grounds of life cycle-specific needs and dynamics. Finally, although the franchisor-franchisee relationship is now acknowledged to be a critical sustainability consideration, the current study suggests the theoretical plausibility of a franchisor buffering role e.g. during change, and the need to consider the legitimacy (and legality) of franchise expectations in this regard.

CONCLUDING PERSPECTIVES

Sustainability of business format franchising does not appear to be under threat if the prolific growth of this business form is considered. However, franchisees are exiting the franchise system in favor of independent business endeavors and dissatisfaction and unmet expectations in the relationship are some of the important underlying causes (Frazer, Merrilees & Wright, 2007). While little is known about the unique behavioral dynamics at the level of the individual franchise, and how this is influenced by the presence of an overseeing franchisor, the current study has revealed that the franchise (franchisee) has to deal with an extensive range and variety of change dynamics that pose significant challenges to the sustainability of the franchise. A significant proportion of these changes are generated internally by the franchisor. By implementing policies that do not acknowledge the impact, consequences and unintended (and undesirable) side-effects of such changes the

franchisor may inadvertently erode the sustainability of franchises. While further research is required to illuminate the idiosyncratic dynamics that permeate the franchisor-franchisee relationship, awareness of the pervasiveness of changes impacting on the franchise (and franchisee) at this initial stage, is in the interest of both the franchisee and the franchisor.

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ENDNOTES

- 1 The entrepreneurial stage identified as the second stage, is effectively and technically the first stage in the life cycle of the franchise business and can be regarded as such as the formally defined business only commences operating in this stage. While most life cycle stage theories tend to commence with the start-up or entrepreneurial stage (i.e. stage 1) they effectively deny the important pre-launch and pre-identity dynamics associated with the 'gestation' stage merely by its omission from the theory.

THEORY OF CONSTRAINTS APPLIED TO HEALTH INDUSTRY

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ABSTRACT

The proposal of this article is to share the practice experience and concepts of Theory of Constraints. The practice gives an opportunity to a health organization to change the way that they work, become their results better, and earnig value to environment where they act giving benefits for local population.

The concepts treated were teachted to raise awareness and decrease the resistance to learn and incorporate the knowledge to their lives and business. These themes invite us to see our own behavior and attitudes, and give us the opportunity to do the things better.

OVERVIEW

This article emphasizes the organizacional behavior, the attitude change and the impacts proportionate by them. It was based in real facts and explored a problem faced by Health Company against Influenza H1N1 in 2009-2010 that brought a new reality.

A Brazilian particular health company with 38 hospitals, more than 250 clinics, attending people all around the country hired us to support their executives that have some difficulty to manage their projects in the new scenario that becomes more sensitive influenced by Influenza H1N1.

Until 11 august 2009 were confirmed in Paraná state (Brazil) 950 cases of H1N1 and 39 deaths due to complications caused by the disease, it also strongly impacted the results of the organization. The chaos was setted up for this company with the increasing the admission rate, hospitals and clinics crowded and the expanses was completely over.

Beetwen a lot of alternatives to minimize these impacts, a senior management recognize the need to change the attitude of the managers to become more efficiency in projects. After a procurement process our company was hired and I was responsible for this project.

Three days before start the consulting I had a meeting with the senior management to plan the work that will be developed, when he brought me a specific problem. It was: "How is it possible to complete more projects, faster, without sacrificing quality and the scope, when the team is more than overwhelmed?"

The first step, was to do the assessment and identify the vision of the group about their own organizational behavior. The challenger in that phase was to create measurement about their attitude during the project. It is important to say that they didn't have any methodology or indicators to manage their projects. To do the assessment I begun using a dynamic to identify how they usually work. As soon the aswers was appearing I recognize that Theory of Constraints was recommended to sensitize the team.

To confirm the recommendation of Theory of Constraints was applied the following questions:

- Are the projects late?
- Are the team overworked?
- Are there many changes in the projects (because the projects are so long)?
- Aren't the resources available (even necessary and provisioned)?
- Are there rework or priorities change?
- Isn't there in your organization an excellent work environment?
- Isn't there management of buffers time in projects?
- Aren't quick decisions taken by clients or decison makers?
- Aren't the informations shared?

- Aren't the suppliers usually late?
- Isn't the change management treated in team?
- Isn't there collaboration environment between seniors and pairs?

If this scenario does occur, it means that could have constraints in your business. There are evidences to explore the following themes: Multitasking, The Student Syndrom, Parkinson Law, Tasks Dependency and $2+2=5$.

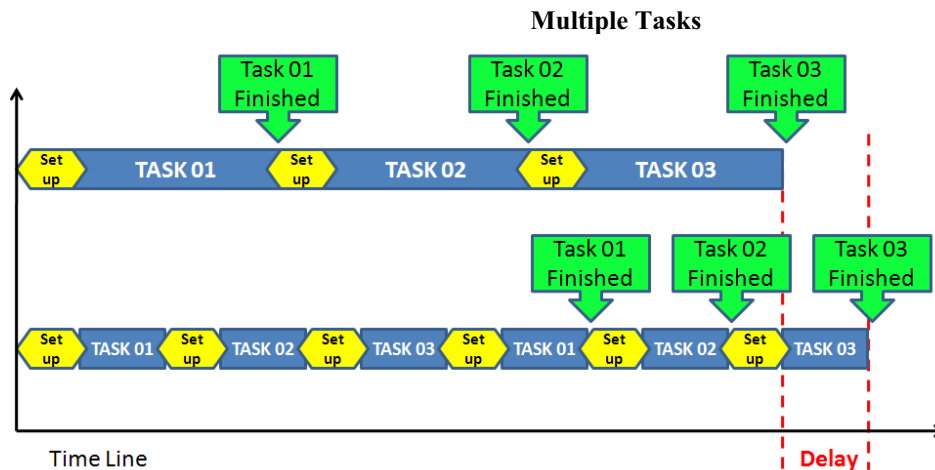
MULTITASKING

Ask to yourself if you dedicate five days just in one task? Usually you've got some interference in your work, or you've let some other activities behind. You need some assurance time to keep your commitment with your boss or your team. Then you usually put 30% or 40% more time to be comfortable and to maintain your credibility. Multitasking occurs when instead do a critical task, you do another task with less priority. How often it happen more time you lose. The time you don't dedicate to your critical tasks, exactly this time you are late and needs recovery.

It occurs when you have a lot of tasks to complete and you balanced them according to the nearest deadline. As soon a deadline comes, you dedicate more attention without thinking what is more critical for your organization.

Usually when someone will do an estimative, you consider time to multiple tasks, because you know somebody will call you at the phone, your boss wants your participation at the meeting, you are surprised with an emergency at your house, your son or daughter is sick and needs you take him or her to the doctor. What else? A lot of events take you out of your critical task. As you are responsible and you know that some of these undesired interferences could happen, you usually estimate your job with some lag.

This problem become more serious when everybody in your work do the same, based in their long experience. The consequence is that gradually all organization's work have a lag of responsibility, and the projects takes more and more time to finish.



As the figure shows, with the practice of multitasking there is natural wasted time with set ups - this is the time used to prepare yourself and the team to reenter into the task. It's time to review at what piece of work you have stopped.

The uncertainty is natural and expected in the task or project. It justifies the buffer time but an excessive fat is intolerable. It begins with a cycle of put and takes out the assurance time. That is another reason to fat constantly growing. As you already know that your boss will take out your extra time you put more and more.

Acceptable multitasking

There are some acceptable activities for multiple tasking like a telephonist, a cooker, or when you are doing something that needs a lag of time to become ready. Other exception for multiple tasks is when what you are doing is not critical and then you have a new task that is critical.

THE STUDENT SYNDROME

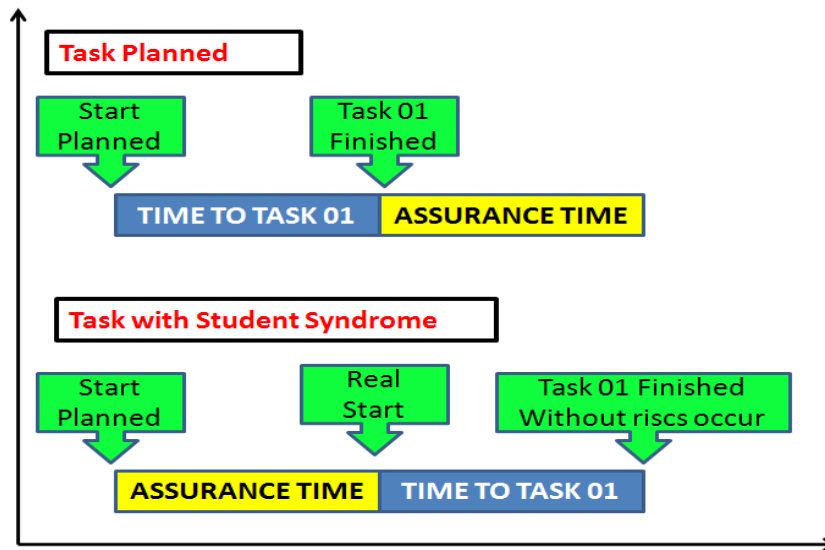
As a student or as a professor, we've already seen when a student begins to study in the last minute necessary to be prepared to the test next morning. It happens when all the free time was wasted and it was the last chance to start to study. Then the student does an extra effort to be ready for the test.

When Student Syndrome happens in organizational environment seems that the work to complete the task is like "The Labors of Hercules" - from Greek mythology to represents the almost impossible works to be completed.

With the Student Syndrome, an executive completes the task just few minutes before the deadline, and usually does not have time to increase the delivery quality. If something wrong happens, or Murphy attacks, the task will lose quality, the scope will be sacrificed or the time was not enough.

With the question: "When is the last minute to start your task, and finish on time?" "Now you have exactly the duration of the task without interferences.

Student Syndrome



If you are really busy and cannot start the task 01 immediately, alright, but nothing wrong can happen to your task, on the other hand, probably you will lose your deadline.

If you have time in your project to waste like a student it means that your project takes more time than necessary and loses competitiveness.

PARKINSON LAW

To estimate a task the first question is: "How long it will take?" And it's natural to include "protection time" to accommodate extra factors and multitask.

By definition, we understand that estimative is something that it's not exact. On the other hand, we expect to know how long the project will take. It is not a lottery, because risks occur, and the uncertainty takes part of projects. Even these affirmations usually the estimatives become commitments.

Estimatives are attributed by the median, or the normal distribution, used to describe any variation that tends to cluster around the middle. It means that the task has 50% to get on time and 50% to get late. In 10 times the task done, 5 were late and 5 on time. This level of performance is acceptable by your team, maybe not, maybe 90% is better. Do you prefer that your team gives you right estimatives, but the meaning of "estimatives" is only a approximation.

Is your task the only one in the project that has extra time included on estimative? Probably not. The manager takes all other estimatives and put his/her own safe time. Everybody includes extra time in their tasks because they want to avoid the responsibility of project delay.

If everybody includes extra time in their tasks why the project time isn't enough? The major of the tasks must finish before the time. If it doesn't happen, all the extra time is becoming wastes. Even task ends on time, it is unacceptable because the safe time was spent for contingencies that never occur.

TASKS DEPENDENCY

If the final date of the project slice one day it is so hard to recover. On the other hand it is so easy to be late, every time didn't dedicate to task it is lost time.

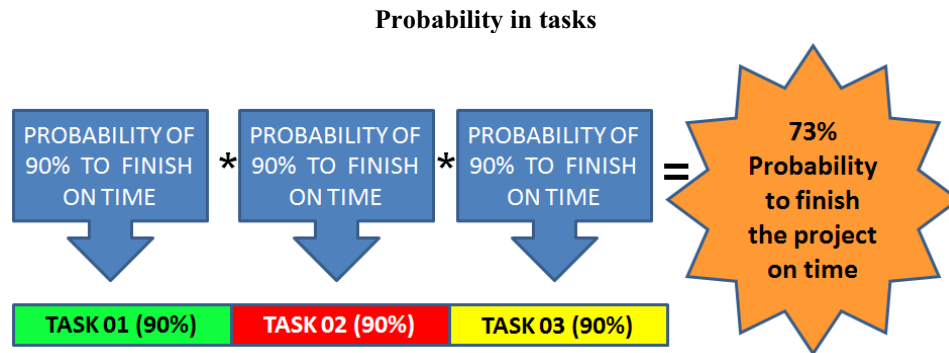
On the matter of facts, when you finish a task Is the next task ready to begin? Usually not. For instance if you planned 10 days to a task and you finish at 6th day, the next task is not schedule to begin in the 7th Day, then you lost your buffer of the task. And all the safe time is wasted.

It's necessary to establish a system which guarantees that every task begins, not like the schedule, but when the requirement inputs are available.

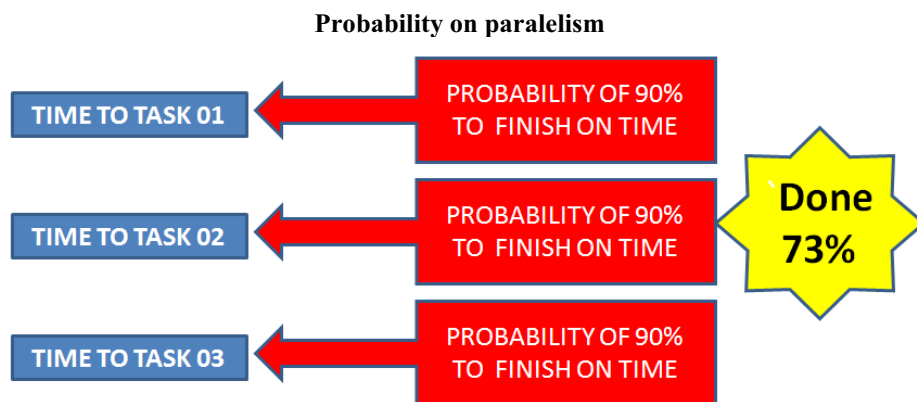
The probability of dependent events

This theory says that every time necessary for dependent tasks, in probability terms, is the multiplication of probability of all dependents events.

If you have three dependent tasks, and each one has the probability to finish in time of 90%, what is the probability to finish the 3 tasks on time? Almost 73%, let's see at the figure:



You may think it's not your problem because you work with parallelism, but we still need to do the same count: $90\% * 90\% * 90\%$ and the result is the same 73% of probability to finish all the three tasks on time. To have 100% probability to end the project on time the tasks must have time enough to get 100% and it represents so long time for the project to contemplate all occurrences and risks.



When a project is late, usually we think the next time we plan a project we will put more extra time and details. Like you can see we put more time to project, more safety, and your project with your experience take more time than the last, and it will become less competitive.

$$2+2=5$$

In a Project you are responsible for the activity 01 that was planned in two days; the next activity was planned in two days too. In normal conditions do we assume that the two tasks take 4 days? Let's see what happens. Considering that you work hard and focused in your activity until the end and finish it at the end of the last day how you undertake. But there is a question: Immediately after finish your work has you delivered to the next responsible? Usually not! By the way you finished the activity and only report the finish to get the credits for it. Next day you take your coffee, check your messages and the list of pending. So you get your delivery and pass it to the next responsible, and now we have lost half day of the project. Another question must be done: Will the next responsible stop immediately anything he was doing to start his new activity? Usually not! When you arrive at next responsible work space he thanks you for the delivery, talks about other things, and recognizes there is no hurry cause you delivered on time and he has a buffer. So, it's the end of the afternoon and one day was lost. If nothing wrong happens your project takes 5 days.

ANOTHER NEW SYNDROME

Besides, the five reasons related to human behavior, responsible for projects late. Were researched and discover about the preseenteism concept. Originally, the meaning comes from when workers have some diseases and even feeling sick they go to work. These workers's performance are affected by the symptoms and cause loss of concentration. There are a lot of studies about the impact of preseenteism in environment's work. For example: In 2008 in Brazil almost 1.8 million beneficiary received health assistance provided by the government. About the presentism there are a lot of practices already implemented like ergonomic studies, laboral exercises, and treatment of prevention of common diseases like sinusite, influenza, causes of headache, wellness, quality life, or encouragement to enter in health programs.

More recently the word "preseenteism" is associated to cases when workers are present in the company but are not concentrated in their tasks or activities even without diseases. This is a kind of activitie's sabotage that affected the achievement results. And with this theme one more question appeared and must be resolved: How can they treat the preseenteist conduct?

BUILDING THE SOLUTION

After explore the causes to affect the achievement results, was treated what can the team do in the future. Cause in 2010, probably the H1N1 will comes again. It was the phase called Bye into Responsibility presenting that only who can change their attitudes and the results in project management were themselves. And it includes to reply the knowledge to their teams. It was based in a lesson taught by Martin Luther King, Jr., had his own idea of what a work attitude should look like. He said, "If a man is called to sweep the streets, he should sweep streets even as Michelangelo painted, as Shakespeare wrote poetry, as Beethoven composed music. He should sweep streets so well that all the host of heaven and earth will pause and say, 'Here, lived a great sweeper who did his job well'".

THE RESULTS

The result of this work was the increase the maturity of the managers in project management. It was represented by an agreement that built the mainframe's methodology of project management, as following:

Accept a aggressive but possible time to finish the tasks. The goal is to eliminate all waste time.

The sequence os tasks must be reviewd and rearranged by the team. The goal is to optimize the task's arrangement.

As soon, the project manager was informed about a problem or changes in the project, he/she can spend time to manage it. On the other hand, if the project manager was informed in the last minute, he/she can not do anything more. The communication of problems must occur immediately. The goal is to have able time to resolv problems.

The activity only finishes when the next responsible confirms that received the deliverable in order. The goal is to have efficiency in the transition of activity.

All buffer of critical chain was shared by the project. The responsibility for it was exclusive from project manager. All the project team have visibility of the buffer and starts to think about the future of the project instead about the past.

And the question that must remain for all member of the projects in this company is: “What can I do sooner to avoid future problems in ours projects?”

CONCLUSION

There is no doubt that the results of this work are simple, but why so few companies actually changes their process and overcome adversities?

There was detected the engagement and support of senior management, and it usually happens when there are also almost chaos. The resistances against new work process must be treated and justified. And finally, shared work and results is a best practice.

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CURRENT TRENDS IN COMPUTER TECHNOLOGY

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ABSTRACT

The main focus of this paper is the current trends in internet communications and services which are experiencing an increase in volume and diversity both in their capacity and in their demand. The latest research and development efforts highlight the human aspects of the design in digitizing real world systems. The need for newer ways to efficiently allocating resources belong to a wide set of networks belonging to a collection of competing users. Computer interaction is rising with an increase in the complexity of their control and optimization, more so due to the heterogeneity of architecture.

DEFINITIONS

Algorithm – An effective method of solving a problem with a finite sequence of statements.

Avatar – A computer user's representation in the form of a three-dimensional model for computer applications.

Cryptology – a modern science integrated into smart cards for financial transactions, web browsers, operating systems, mobile phones, and identity cards.

Social Networking – A social structure made up of organizations or individuals called nodes connected by one or more specific types of interdependency.

Facebook – a social networking website privately owned.

MySpace – It is a leading social network offering customization of your profile and image on the web.

Twitter - a social networking and micro-blogging service enabling service enabling users to send and receive messages called tweets.

Text Messaging – It is a form of communication where the sender types words on a cellular phone using the keypad and sends it to another person, who receives it.

INTRODUCTION

We know what it was like six or so decades ago, without computers, no mobile phones, and no internet to access information. The new style of life is defined as the information age, where low cost information and information communication technologies are in use. Emerging technologies is giving wave after wave of new benefits in our daily life, and with organizations doing our purchases, filing tax, paying bills, and booking the next vacation. The Internet allows everyone to access information in a transparent way, independent of the location or computing device used. Knowledge management across organizations uses such tools as chat rooms, discussion forums, bulletin boards. Different tools have different functions, working efficiently in the appropriate environment. With varying levels of knowledge, experience, and computer literacy, the society is able to use the eSystems in a large number of application areas. The feeling of connecting with each other as well as helping and sharing of information is being used in different domains. Social software is used to build

dynamic online communities and subsequently used to improve the relationship between the community members, stimulating them to be more active. The future Internet will reinforce the need for interdisciplinary teamwork between the different domains of academia – engineering, computer science, and social sciences which have already moved forward and which need to be collaborating at a new level. Social computing is one of the growing fields of human computer interaction (HCI). The HCI field does incorporate communications and security for networks in which cryptography plays a major role (Prisco, Yung, 2006).

A tighter collaboration between industry and academia is of utmost importance since it is an era of ‘ServiceWave’. There are series of conferences at an international level as forums for educators, researchers, and practitioners to present and discuss the most recent innovations, trends, and experiences – the future of the internet services and the fundamental network technologies. The ServiceWave that we are seeing fosters the creation of a cross-community scientific and industrial expertise of various disciplines like computer systems, networks, distributed or parallel systems, wireless and mobile communications, grid computing, embedded and smart systems, systems and software engineering (Shih, 2009).

The next generation communication services are designed to fulfill user’s needs instead of focusing on technologies and protocols. As users needs are various and diverse, a single service is not suitable for all communication needs. The various services are kept separate with explicit boundaries and referred to as loose coupling where they are not tightly integrated. Each service is responsible for a given task offering a well defined interface to the other services. Cooperation between services requires a common understanding of what each service does, which is called a shared service description. Current service descriptor languages like Web Services Descriptor Language (WSDL) are focused on software aspects. The value is not in data treatment, but in the quality of the user interaction and the reliability of the executed tasks. Communication services are provided from the user’s point of view, describing the actions from both the service users and the provider’s point of view. Communication has evolved towards user-centric services. The usage evolves more in accordance with the transformation of the service sector. The service sector is largely healthcare, social assistance, education, finance, public administration and so on as defined in the North American Industry classification system. The economic growth of developed nations is driven by the service sector (Bertin & Crespi, 2008). Inside the Information Technology (IT) world, advances are driven by the information systems (IS). To adapt there is to the service mode, industries had to sever their boundaries to the various applications. The IT world has copied the Service Oriented Architecture (SOA) paradigm. Applications cannot be considered as stand alone entities, but as different services or discrete and independent units which perform a specific task reachable through an open and well-defined service interface. In network economics, biased voting and the democratic primary problem was used in “well-studied probabilistic stochastic process” modeling social networks in a basic and natural manner using undirected graphs (Kearns & Tan, 2008).

Cryptography

At the present time there is a clear need for cryptographic solutions. Encryption is the bread and butter of cryptography with well-established notions of security and a large variety of schemes to meet these notions. Encryption schemes, modes of operation, issues with Key-Management, and Self-Encryption of Keys are considered as important issues (Halevi, 2008). Adequate algorithms and protocols have been developed. There is also a decrease in cost of computation which makes it inexpensive to implement to implement symmetric and asymmetric cryptology. Research efforts in security are focused exclusively on building trustworthy infrastructures, and integrating these so called black boxes with algorithms and protocols into applications. Security systems fail usually due to reasons other than cryptographic flaws, such as incorrect specifications, or implementations, bad management, viruses, and social engineering attacks. Any cryptographic protocol: encryption, authentication, key establishment, e-payment, e-voting can be described as multi-party computations, and generic. A challenge would be to make these protocols more efficient both for general and particular problems. Public-key encryption and digital signatures are among the most common problems. We currently have a large toolbox of cryptographic algorithms and protocols. There is however a challenge due to the gradual wearing down of the computational models on which cryptology is based. The erosion is partly due to developments in computation, progress in electronics, optics, and quantum computing. There is also a need for progress in cryptanalytic algorithms (Preneel, 2004). To structure in these requirements, there should be high

performance and security levels at low cost. Whenever all three are not feasible at the same time, there are trade-offs depending on the situation, for example a high security level device, would mean a sacrifice in cost.

TRENDS

We are “evolving towards ambient intelligence, passive networking or ubiquitous which have completely new characteristics (Preneel, 2004). A field study approach is more appropriate for identifying the needs of social networking and human computer interaction. There were many early efforts to electronically link individual computers for social interaction. As early as 1978, Murray Turoff’s server-based Electronic Information Exchange Service (EIES). There were other computer-mediated services on Usenet, Advanced Research Projects Agency (ARPANET) by the Department of Defense research agencies, LISTSERV, and bulletin boards. This approach enables the study to be done in the real world to match the target environment which is for mobile use. A number of companies involved in the research and development platforms in Europe like electronic point of sale systems (EPoSS), New Sampling Sensor Initiative (NeSSI) are taking the task seriously. These platforms are “collaborating to define strategies for addressing the challenges to deliver software and computing resources as a service, to develop new, attractive, context-based, device independent services addressing the precise needs of the user” (Reding, 2008). Some of the technologies available are discussed here.

Email

To explain this everyday phenomenon, the first step is to identify actions and actors. The service involves 3 actors; the sender, the service provider, and the receiver. The actions involve contact selecting action (by sender), message composing (by sender), message sending (by sender), message delivering (by provider), mailbox checking (by receiver), and reading message (by receiver). Some actions require another action, for example message composing is required before message sending and these are described as dependencies.

- ✚ The signing in action requires the subscription to an e-mail account.
- ✚ The message composition requires the selection of a contact to which the email is to be sent.
- ✚ The message sending action needs to have the above two actions as prerequisite to send it.
- ✚ The message reading action requires the checking of the mail box by the receiver, and the delivery of the message by the service provider.
- ✚ The term principal is used in the email provider system which authenticates the identity according to the Liberty Alliance vocabulary (<http://www.projectliberty.org>)
- ✚ The mail delivering action requires the validity of an email address of the receiver, as well as a subscription to the email provider system.

The above actions and their dependencies are manipulated with Unary Modeling Language (UML) syntax as UML classes. The Enterprise Architect from the Sparx systems UML tools can be used as the storehouse for the service descriptions. About forty different actions are involved in the process for this commonly used communication service. The next step would be to use these action descriptions as a library for more services. The service user can select a contact from the address book triggering a new message, compose, and send it to the selected contact. The service descriptions are linked to technologies like IP Multimedia Subsystem (IMS), or Service Delivery Platform (SDP) to consider the technical patterns like protocols, and reference points, so that one can automatically compose a service in a web environment.

Blog

Blogs are used for publishing online journals when it was first introduced and is a promising tool for knowledge management. Blogs enable users to accumulate knowledge, as well as share and manage it. Five motivations for blogging: documentation, providing commentary and opinions, expressing deeply felt emotions, articulating ideas through writing, and maintaining community forums (Nardi, 2004). Blogs are used as a management tools to publish and distribute knowledge about a particular subject area, and the ones who read these blogs interact with the publisher and make their own opinions known leaving comments as reviewers. Blogs can be created and maintained by multiple authors within a workplace, a team or group using it as a computer mediated

communication tool. Corporate blogs include Microsoft, Sun Microsystems, SAP, Oracle, Macromedia , and so on. Corporate statistics show only 5.8 percent of the top Fortune 500 use corporate blogs (Ma, 2007). A blog has “coincided with and helped to impel an irreversible surge in faster, easier, more ubiquitous publishing to a web of increasingly index-able, searchable, findable and collaborative information” (Borau, 2009). A blog is neither a new nor a unique genre in the ecology of interactive web technology, but a bridge between multimedia HTML documents and text-based computer-mediated communication (Ellsworth, 2006). Bloggers help publish information, but use the blogosphere to increase their own knowledge by supporting or disapproving the claims. Blogs provide a method to deal directly with their customers with a human face and voice, rather than be inhuman to online audiences (Jue, 2010). Current popular search engines like google and yahoo constantly update and link rich web pages like blog posts enabling small businesses to increase their visibility.

Microblogging

The maximum visible characters on a cell phone are 140 characters or less. There are a few other microblogging and social networking sites: Plurk, Jaiku, and the larger ones are: Twitter, Facebook, MySpace, LinkedIn, and XING (Jue, 2010). They also provide a form of microblogging, though it is referred to as status update on these sites. Though it is one of the newer technologies on the social media scene, it is growing exponentially.

MySpace

MySpace became the most capable social networking website in 2006. Its headquarters are in Beverly Hills, California in the same office building as Digital media and is owned by News Corporation. The home page was redesigned in 2007 to compete with Facebook with status updates, and other applications like games, music, and videos (Jue, 2010). Through its Web site and affiliated networks it is second only to Yahoo. Google signed a business deal to provide a search engine facility and advertising to MySpace. Many small companies like Slide.com, YouTube were all launched on MySpace as widgets providing additional functionality to the site. In 2009, MySpace added a new status update feature. If a MySpace user had a Twitter account, the tweet will also update the MySpace status. Facebook also has a similar feature. MySpace allows users to customize their profile pages inputting Hyper Text Markup Language (HTML) script but not JavaScript. Thus, videos and flash-based content can be incorporated. A user can use Cascading Style Sheets (CSS) to change the appearance of the default style of the page. There are several websites offering MySpace layout design utilities which let a user select options and change what their page looks like with them. MySpace has recently redesigned its music page and some well known singers have gained fame through MySpace.

During the 2008 presidential election, candidates set up MySpace profiles to attract young voters. Many political organizations set up their own accounts to expand the membership base. Most profiles feature photos, blogs, videos, and other features to make viewers get involved. MySpace pages are designed sometimes by people with little HTML and CSS experience, a large number of the pages do not satisfy World Wide Web Consortium (W3C) regulations. In 2008, the State Attorney General’s office in 49 states wrote online safety guidelines for social websites. MySpace has started migrating from Hard Disk Drive (HDD) to Solid State Drives (SSD) ensuing space and power usage savings.

Facebook

Facebook was founded by Mark Zuckerberg with his college roommates and fellow computer science students while at Harvard. The concept was borrowed the Phillips Exeter Academy where the hand manual to students and faculty was called face book. He started with the Facemash in October 2003, and the following semester in January 2004, he wrote the code for a new website calling it the Facebook where the membership was originally to students at Harvard. Facebook is used highly in 2009 and 2010 and is the top social network in Philippines, Austria, Indonesia, Malaysia, Singapore, New Zealand, Hong Kong and Vietnam, while Google-owned Orkut is popular in India, Mixi-jp in Japan, CyWorld in South Korea, and Yahoo’s Wretch.cc in Taiwan. In September 2007, Microsoft approached Facebook proposing an investment, and during the same month Google expressed an interest, but in October of the same year Microsoft announced that it had purchased a 1.6% share of the Facebook for 240 million. Currently, 90 percent of its users are under 35 years of age (Jue, 2010). Facebook is often compared to MySpace which allows users to decorate their profiles only with HTML and CSS while it is

possible in plain text with the former. The features include the Wall on the user's profile page, where users can post messages depending on the privacy settings. In 2007, Facebook launched the Marketplace, which has been compared to Craigslist by CNET, with the difference in the former it can be seen only by the users on the same network while with the latter, anyone can see it.

The website is free to users, generating revenues from advertisements, serving only the ones that exist in Microsoft's inventory. In 2007, the Platform was launched which provided a Framework for software developers to create applications that interact with its core features. It lets users share home made videos. Applications that have been developed include games like chess which the users can play on the platform. According to its website, in 2008, the Facebook Server Infrastructure had the front-end servers running on a PHP LAMP stack software bundle, while the back-end services were written in a variety of programming languages including C++, Java, Python, and Erlang. In 2010, it is building the company's first custom data center in Princeville, Oregon.

Twitter

Twitter sprung up within the San Francisco-based podcasting company Odeo in 2006. Jack Dorsey created Twitter as a research and development project which became an internal tool for Odeo employees. In August 2006, it was launched publicly with his new company Obvious, and it blossoms as a tool. In May 2007, Twitter Incorporated was founded. In September 2008, comScore reported that there were 5.57 million visitors to Twitter. The number has increased five times (Jue, 2010). The use of Twitter's application programming language is used heavily for sending and receiving text messages by other applications.

Each blast of 140 characters or less is called a Tweet. Users can search for particular people and choose to "follow them" by receiving their tweets on their cell phones or on their computer. Twitter is a social networking service which enables users to send and read messages known as tweets. They are text-based postings up to 140 characters displayed on the author's profile page that is delivered to the author's subscriber's known as followers. All users send and receive tweets via the Twitter website, known as the Short Message Service (SMS). Though the service is free, it may incur expenses accessing it through SMS using the phone service providers. The Twitter Web interface uses the Ruby on Rails framework. To group the tweets by topic or type, users use *hashtags*, which are words or phrases prefixed with a "#". A username prefixed with a *d* allows users to privately send a message to those in their group known as followers. The @ followed by a username indicates the attached tweets are a reply to specific users. With the addition of a search bar and a sidebar on April 30, 2009 Twitter has become a discovery engine for finding out whatever is happening at that moment. Twitter is ranked as one of the 50 most popular websites worldwide by Alexa's web traffic analysis. The qualities that make Twitter seem inane and half-baked are what makes it so powerful, according to Jonathan Zittrain, Professor of Internet law at Harvard law school. Twitter has been incorporated into the actual courses to train students (). The approach gives more students the opportunity to express their views as well as to limit the use of characters to force them to get to the point. Twitter has been put on the primary school curriculum. They are taught to speak, write, and broadcast using blogs, podcasts, websites, email and video. Instant messaging systems like Twitter did a better job of getting news out during emergencies. Organizations that support relief during fires use Twitter. The American Red Cross uses Twitter to exchange minute to minute information about disasters. During the 2008 Mumbai attacks, Twitter users compiled a list of the dead and injured, as well as vital information such as emergency phone numbers, and location of hospitals needing blood donations. In January 2009, when US Airways flight 1549 experienced multiple bird strikes, a passenger, Janis Krums on one of the ferries that rushed to help send a picture of the downed plane to Twitpic before any other media arrived at the scene. The Australian Fire authorities used Twitter to send out regular alerts about the February 2009 bushfires and at the same time, the authorities sent messages from their Twitter account to send out information and requesting donations of blood and money, and where to get help.

Organizations are beginning to see the value of microblogging. Twitter is a little weird to use at first, but within two weeks you master it, and you will build a culture within your company, while building a loyal and engaged customer base. Many organizations are discovering the value of a microblog's capability. IBM has been exploring a number of social networking technologies, and Blue Twit is its Twitter-based solution. "Twitter is a quick, easy way to bridge the oceans" and allow people a much better glimpse of how their colleagues in other time zones and cultures live, which understanding helps people work more effectively. The power of micro-

blogging also lies in its ubiquitous ness. Team members can communicate key ideas with each other where ever they are. While standing at a coffee shop or watching son's football game, these moments are ripe for a flash of brilliance, which could be shared in real time with a flurry of tweets which can take matters in an entirely new direction (Jue, 2009).

LinkedIn

LinkedIn is mainly used for professional networking, and is business-oriented. It is one of the biggest social networking sites, aimed at a professional audience seeking jobs, resources, or specific information to help their work or career aspirations. It was founded in December 2002 and active users are over 23 million. It has more than 65 million registered users, spanning more than 200 countries and territories world-wide.. The site is available in English, French, German, Italian, Portuguese and Spanish. The membership grows by a new member every second. About half of the members are from United States and 11 million from Europe. India is the fastest growing user with 3 million users. The site permits users to give connections, maintaining a list which has names of people and details about them who you can use as business contacts. Employers can list jobs and search for suitable contacts. Users can also post photographs for identification purposes. The LinkedIn answers feature permits users to ask of the user community for them to answer. The questions are professional-oriented and the identity of the person asking as well as answering is unknown. In February 2008, a reduced version was made available for mobile phones. In October 2008, LinkedIn revealed plans to open its social network of 30 million professionals globally as a potential for business-to-business research.

Podcast

Podcast is a downloadable audio session sent to subscribers on demand playable on the computer or the mobile mp3 player. Podcasts are most useful to large organizations, where employees are accustomed to downloading files. The audio files describe the sales call, personalities and the needs of the key decision makers. At Oracle, podcasts are used as educational offering in group settings (Jue, 2010).

Wiki

Wiki is a Web site where many employees collaborate to work together adding, editing the content of the site. It offers a commonplace for a group of people to create a project together. Many free tools like wikispaces.com, pbwiki.com are among the common tools available (Jue, 2010). Wikis can be of three types: private ones which only members can see and edit, public, where readers can view it but cannot edit it, and protected ones which everyone can see but the editing is limited to members only.

YouTube

YouTube is a video-sharing website which is used to upload, share and view videos. It is based in San Bruno, California. It uses the Adobe Flash video technology to display a wide variety of user-generated videos. It gained popularity since it had the capability to be embedded in MySpace profiles. Media corporations including CBS and BBC offer their material on the site. Chad Hurley, Steve Chen and Jawed Karim are former PayPal employees who created it in February 2005. Hurley studied design, while Chen and Karim were computer science students. Alexa, is a subsidiary of Amazon. Com and ranks YouTube as the third most visited website behind Google, and Facebook. Google Inc. acquired YouTube October 2006, and a Forbes magazine projected the 2008 revenue to be US\$200 million, meaning a progress in sales. On October 9, 2009, on the third anniversary of its acquisition by Google, Chad Hurly announced in a blog posting YouTube was serving well over a billion views a day. YouTube has turned video sharing into one of the most important aspect of the Internet culture.

Text Messaging

The style and level of formalism of written natural language differs greatly depending on situations. In reports, scientific papers, and such like text is syntactically correct written in a formal fashion, while in online

messaging, blogs, and so on the text is informal and may include special symbols, abbreviations, and acronyms [16]. Text messaging has helped political campaigns.

Web Conferencing

In 1990, Web conferencing became available gaining popularity with many add-on features. In large corporations, it is the style in which teams hold their meetings, collaborating documents, and making decisions. Web conferencing permits participants to be anywhere in the world and yet be together. Some of the common web conferencing tools are Webex, GoToMeeting, and Live Meeting, with Oracle develop its own solution.

iPhone

iPhone is an Internet and multimedia-enabled smart phone designed, released and marketed by Apple, Inc., in 2007. iPhone functions as a camera phone with text messaging, visual voice mail, a portable media player (a video iPod), and an Internet client with e-mail, web browsing, and Wi-Fi connectivity. The user interface is a multi-touch screen with a virtual keyboard. Third party applications are available including GPS navigation, games, reference, social networking, and advertisements for films, shows on television. Time magazine named it the invention of the year for 2007. The 2009 iPhone 3GS has improved performance with high resolution, video capability, voice control, and support for downloading with limited support for uploading.

iPad

iPad is a tablet computer designed and marketed by Apple, Inc. Unlike other tablets, it uses fingertips for input instead of a stylus. It is a class of device between smartphones and laptops. The touch screen is a 25 cm liquid crystal display. Like the iPhone, the iPad runs the iPhone operating system (OS) and uses a multi-touch LCD for most user interactions. iPad uses wireless wide area networks (WAN) or WiFi to browse the Internet, and install software. Unlike the iPod, and iPhone that work in three orientations, the iPad supports all four orientations. Most iPad applications support both landscape and portrait mode. iPad has a switch to lock out the screen rotation function to avoid unintended rotation. There are four physical switches, including a home button below the display to return the user to the main menu and three plastic switches on the sides: wake/sleep, volume up/down, and a screen rotation lock. The iPad comes with the applications: Safari, Mail, Photos, Video, YouTube, iPod, iTunes store, Maps, Calendar, and so on. The iPad is not designed to replace a cell phone, a user can pair it with a Bluetooth headset and place the phone calls over wireless Wi-Fi Alliance or Third Generation (3G) using a Voice over Internet Protocol (VoIP).

CONCLUSION

The study indicates that people have needs to share a range of content while mobile. The technologies do support people's desire to create and share information with others. For more detailed sharing, a fixed environment is needed. To adapt services to user's needs, service providers should formally describe the actions to service users in a common library of actions. The service descriptions are worked out with marketers in order to help build a conceptual tool. This can help build new services according to existing logical dependencies between actions. The present research aims at "control and optimization of the Internet, ranging from performance evaluation and optimization of general stochastic networks to more specific targets like lower-layer functionalities in mobile networks, routing for computational grids, game theoretic approaches to access control, cooperation, competition and adverse capabilities in diverse environments"(Chahed & Tuffin, 2007).

In automated devices, weaker algorithms and algorithms with short keys is disappearing. Cryptology is evolving into a science (Preneel, 2004). Many applications of today are also evolving towards Service Oriented Architecture (SOA) with technologies like the Web services. Services are modeled through UML2 collaborations using the upcoming UML profile for service which is the SoaML. There is an increasing need for validation, which are based on syntactic descriptions of the services and of their interfaces. The social computing technologies are increasingly popular for they allow the ones who create it to share their own content. At the present moment, mobile devices are used more for communication, and for accessing information. The recent

wave of innovations include increased connectivity like Bluetooth, processing power, storage space, and enhanced multimedia capabilities supporting increased social interaction.

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DO STUDENTS' ACADEMIC ABILITY AND ETHNIC ORIENTATION INFLUENCE UNIVERSITY CHOICE?

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ABSTRACT

Higher education has become more competitive in recent years and the role of marketing and recruitment aimed at diverse student groups has grown significantly. The purpose of this study is to examine how well 23 choice factors discriminate between different ethnic groups in terms of their academic performance. Self-administered questionnaires were completed by a sample of 1 241 students from six higher education institutions in South Africa. The study showed that irrespective of academic performance, diversity and social life are the two most powerful discriminators between black and white students respectively. The results could assist higher education institutions to develop effective marketing and recruitment strategies.

INTRODUCTION

World-wide, higher education is in flux because of the numerous pressures and changes in the higher education landscape. Some of the issues are an increase in global competition, an increase in tuition fees of higher education, an increase in the need for alternative sources of funding together with cost containment, changes in financial policies, growth in student numbers, a changing profile of the student population and changes in the mode of education delivery (Rindfleish 2003; Gürüz 2008). In South Africa, higher education institutions face similar challenges, concomitant with pressure to deliver the much-needed graduates for social and economic development, while simultaneously addressing equity and diversity.

Many higher education institutions engage in various forms of marketing and recruitment activities to differentiate their institution from competing institutions. Higher education institutions therefore need a better understanding of students' search patterns and which institutional characteristics (often referred to as choice factors) are most important in their selection process. The purpose of this paper is to investigate the differences between various ethnic groups in terms of their academic performance and the importance they attach to a set of choice factors when selecting a higher education institution. First, the paper provides a theoretical overview of higher education in South Africa, followed by students' institutional selection processes. Next, the aim of the research and method are described, after which the results are reported. This is followed by a discussion on the implications of the findings, as well as a conclusion that briefly highlights the limitations of the study and identifies future research opportunities.

PUBLIC HIGHER EDUCATION IN SOUTH AFRICA

A combination of economic, social and political changes has affected higher education institutions, both nationally and internationally (Bajinath et al. 2007, 402). Globally, higher education is being aligned with the wider demands of economic development and competitiveness (Cloete et al. 2003, 13). In South Africa, the history of apartheid has led to a process of higher education transformation by the government. The nature of the political settlement in 1994, the emergence of a stringent macro-economic framework, the influence of globalisation and the impact of the underlying labour and economic patterns have all influenced the government to align higher education with economic development (Fataar 2003, 33). Some of these changes have put pressure on higher education institutions to deliver the needed graduates while simultaneously addressing diversity in the higher education system.

After 1994, South Africa's first democratically elected government inherited a racially segregated higher education system. The process of transforming higher education in South Africa has made great strides in policy implementation since 1994 (Makoe 2006). Key initiatives, such as the National Education Policy Investigation (NEPI), the National Commission on Higher Education (NCHE) and the Green and White papers on Higher education (2000), have all illuminated the need for change, planning and action (Bajinath et al. 2007, 401). Implementation has focused on aspects such as new funding provisions, student financial schemes, restructuring of higher education programmes and institutional mergers (Lange & Luescher 2003, 82).

For many decades, separate higher education institutions existed for different ethnic groups, which led to a divide in higher education and an uneven quality of the education provided. Consequently, one of the National Plan on Higher Education's (NPHE) five policy goals is to achieve diversity in the South African education system (Wangenge-Ouma & Cloete 2008). Growing student numbers and improved access to higher education, especially for previously disadvantaged black students, were seen by the South African democratic government as key to overcoming past injustices and producing high-level skills to drive economic growth. Enrolment of (mostly disadvantaged) students rose by 268 per cent in the decade to 2006 (MacGregor 2009). At institutional level, higher education institutions were compelled to improve access to students from previously disadvantaged groups (especially black students), be more responsive to the needs of the new society and to mirror the demographic profile of the population. Headcount enrolments have grown from 473 000 in 1993 to 784 000 in 2008 - with numbers expected to reach 837 000 in 2011 (MacGregor 2009). The participation rate of white students is approximately 60 per cent, while for black students is only 11 per cent. It should be noted, however, that the proportion of white students has shrunk from nearly half of the student population in 1993 to around 25 per cent in 2009.

Diversity, in an educational context, can be regarded as the inclusion of different genders, races, classes, sexual orientations, physical disabilities and religions, but more frequently it focuses on the access and success of students from under-represented racial and ethnic backlogs (Smit & Schonefield 2000, 17-20). The shift from a largely white elite higher education system to a mass education system (resulting from the increased need for access to accommodate a different profile of student) has implied fundamental changes in the composition of the student population and brought with it its own set of challenges. First, a greater number of students who are not academically well-prepared have sought entrance into higher education institutions. Second, the increase in access has led to lower throughput rates (up to 40 per cent drop out in their first year), especially among black students (MacGregor 2007). Third, the high drop-out rates have resulted in financial implications for higher education institutions, mainly due to the adoption of a new funding formula. In the previous system the numbers of enrolled students were counted, but under the new system both the number of students enrolled and their pass rates were taken into account. This funding problem was intensified by students' inability to pay their fees resulting in institutions tightening their admission criteria, offer new means of financial aid and develop cost-saving measures (Wangenge-Ouma & Cloete 2008, 918).

Higher education institutions (HEIs) will have to address the diverse student market using marketing, communication and recruitment strategies that must accommodate students' differences. Furthermore, increased pressure from government on broader access means that institutions should ensure that they recruit and attract students from different ethnic backgrounds. A useful way of developing effective recruitment and marketing strategies is to understand the decision-making process of students when they select an HEI because this will in turn, have implications for HEIs' future marketing and recruitment strategies.

SELECTION OF A HIGHER EDUCATION INSTITUTION

Choosing a HEI has become a complex and high risk process for students because the decision to attend a particular HEI can have an impact on a student's future career path. When selecting a higher education institution or field of study, students and their parents go through a number of unique stages. Their decisions will eventually result in enrolment or non-enrolment at a particular higher education institution, and this decision represent a major life decision (Beggs et al. 2008). Factors such as academic achievement, personal values and economic circumstances also influence students' decision-making process (Braxton 1990). In general, the process of selecting an institution involves three broad stages.

The first stage is the forming of higher education aspirations which include the factors and processes that influence and shape a student's educational aspirations. The second stage involves the identification, selection of, and application to a selected number of higher education institutions. During this stage prospective students acquire information from various sources about the institutions which they are considering. At this stage, students search for information relating to a wide range of decision criteria or choice factors. The selection process ends when a student applies to an institution. The final phase involves the student's admission, enrolment and attendance (DesJardin, Dunbar & Hendel 1999, 120). An HEI needs to understand the factors that influence a student's application and enrolment decisions in order to attempt to improve the fit between students' perceptions and the institution's expectations. Institutions need to focus on their strengths and/or situate themselves around choice factors that are important to students and at which they are or can become excellent (Maringa 2006, 467).

Hoyt and Brown (2003) consulted 22 previous US studies to identify and list the most important choice factors. These included academic reputation, location, quality of instruction, availability of programmes, quality of the faculty, cost, reputable programmes, financial aid and job outcomes. The next level of most important factors across the 22 studies included a range of factors, namely variety of courses offered, size of the institution, surrounding community, availability of graduate programmes, student employment opportunities, quality of social life, class size, admission to graduate school, extracurricular programmes, friendly/personal service, affiliation (with another reputable institution), admission requirements and attractiveness of campus facilities.

For UK students, Maringa (2006) identified programmes (details of course and field of study), price, place (diversity and campus accommodation) and prominence (reputation) as the four most important choice factors. In a Canadian study, findings showed that students value location, non-academic services and scholarships when selecting a higher education institution (Drewes & Micheal 2006). Findings from an Australian study identified reputation and prestige as important factors, but noted that first-year students at the University of South Australia also ranked career preparation, specific academic programmes, distance from home, quality of research programmes and library resources, as strong influences on their choice of university (Martin 1994). Five subgroups of choice factors were identified by a South African study, namely employment aspects, course content aspects, student experiences, sporting aspects, financial aspects and the influence of significant others (Bonnema & Van der Waldt 2008).

FACTORS AFFECTING HIGHER EDUCATION SELECTION

Earlier research by Hossler and Gallagher (1987) indicate that students' academic ability and socioeconomic status play a significant role in their HEI decision-making process. Several other international studies have reported on ethnic differences in terms of students' higher education selection process. One study determined that Black and Hispanic students were more cost conscious and therefore, financial aid and grants were more important choice factors to them (Hoyt & Brown 2003). Another study's findings showed that ethnic differences related to factors such as cost, financial aid, perceptions of prestige and reputation of institutions (Teranishi et al. 2004). Results of research by Braddock et al. (2007) indicated that academic and career issues represented the strongest factor, while social considerations ranked somewhat lower in importance for African American students. One UK study reported that a match or mismatch between students' identities as learners and the perceived identity of the institution is critical in the decision-making process for higher education study (Smith 2007). A South African study by Cosser and Du Toit (2002) highlighted the fact that black students are more influenced by parental and peer pressure as well as by the quality of sports facilities and a lower scale of fees than other South African ethnic groups.

Evidence suggests that student ability is also a factor that influences the predisposition, search and choice stages of the HEI process (Cabrera & La Nasa 2000). Paulsen (1990) observed that students with high academic ability consider higher education selection earlier in their life and consider a larger number of institutions during the process. Students' academic performance also seems to affect the importance they attach to choice factors. Research posits that students' academic ability affects the selection process and student preferences (DesJardin et al. 1999). Findings from one study show that students who perform well academically attach greater importance to academic reputation, quality and scholarships than students who are considered

academically challenged (Hoyt & Brown 2003, 3). Results from another study indicated that students with above-average academic ability are less affected by the higher fees of an education institution than by the academic reputation of that institution (Spies 1987). Furthermore, students with a high academic ability are likely to choose: an institution away from home; a high cost institution; a private rather than a public institution; and prefer more selective HEIs (Paulsen 1990; Braxton 1990). Conflicting results are reported by Avery and Hoxby (2004) who concluded that high academic ability students are sensitive to tuition fees and are attracted by grants, loans and work-study arrangements. The results of a study in the Philippines showed that students' academic ability account for differences in the assessment of the importance of HEI choice factors/academic ability (Tan, 2009). Factors such as cost and financial aid, security, friends and the social atmosphere were more important to average ability students than high ability students. The latter study contradicts other studies that reported that high academic ability students valued financial aid more.

RESEARCH OBJECTIVE

Based on the preceding literature review and suggestions by previous researchers, the importance of 21 choice factors were included in the study and entail: wide choice of subjects/courses; quality of teaching; academic facilities; entry requirements; fees; location of university; sports programmes; social life on campus; attractiveness of campus; campus safety and security; on-campus housing; parents went there; brother/sister went there; friends went there; academic reputation; financial assistance; language policy; links with industry; multi-cultural diversity; international links; employment prospects; flexible study mode and image of university. The objective of the study is to determine how well the choice factors discriminate between different ethnic groups and their academic ability.

RESEARCH METHOD

Sampling, Data Collection and Data Analysis

Non-probability, convenience sampling was used, since the characteristics of this method was considered suitable in view of financial and time restraints. Owing to the difficulty of obtaining permission from the Department of Education to include final-year secondary high school learners in the study, first-year university students were selected as so-called substitutes for the school learners. As suggested by Menon et al. (2007, 711), first-year students are considered to be suitable substitutes as they still have a relatively accurate recollection of the decision-making process which preceded their entry into higher education.

A total of 250 questionnaires were distributed to first-year Economic and Management Sciences students from six participating public South African higher education institutions, thus aiming for a sample size of 1 500 students. Data were collected by means of a quantitative, self-completion measurement instrument distributed during normal lecture periods to students in class. The questionnaire was based on an adaptation of the Admitted Student Questionnaire (ASQ) as well as the Cooperative Institutional Research Programme (CIRP) (Randall 2001). Respondents' opinions on the importance of 23 choice factors were measured using 5-point Likert scales ranging from (1) not important at all to (5) extremely important. The questionnaire also included questions to measure socio-demographic variables such as age, gender, ethnicity and home language.

A stepwise discriminant analysis was performed to determine how well the 23 choice factor variables discriminate between different groups. According to the stated objectives, the groups were identified as ethnic orientation (black or white) and academic performance (average and high performers) thus constituting four groups. The analysis was carried out using the P7M programme of the BMDP software package. A stepwise discriminant function analysis was used to build a step-by-step model of discrimination for each of the identified groups.

RESEARCH RESULTS

Sample

The representation of the six institutions in terms of respondents ranged from 11% to 21%. The demographic profile of the respondents comprised 36% male and 64% female. The ethnic orientation spread was 46% white, 41% black, Indian (9%) and three per cent coloured. Because of the small sample sizes of the Indian and coloured students, they could not be included in the further statistical analysis. At this point it may be relevant to note that the ethnic categorisation system of black, coloured, Indian and white used in this study is considered to be a valid basis of differentiation, as these are also the classification terms used by Statistics South Africa to classify race in the country's population censuses.

Discriminant Analysis

For the stepwise discriminant analysis procedure, four mutually exclusive groups were established based on the average marks obtained in the Grade 12 examination: average and high academically performing blacks, and average and high academically performing whites. The eigenvalues associated with these functions were 0.38049, 0.07224 and 0.01146 respectively, and accounted for 82 per cent, 16 per cent and 2 per cent of the explained variance. The first function calculated by the analysis procedure, which is always the largest and most important, thus shows the largest between-group variability (as is normally the case). The canonical correlations associated with this function were 0.52500, 0.25956 and 0.10644, indicating that 11% of the variance in the dependent variable (academically oriented ethnic groups) was explained or accounted for by this model. Wilks' lambda indicated that the mean test scores of the two groups were statistically different ($p=0.0000$).

It is important to note that 15 of the choice factors did not meet the significance criteria for inclusion and retention in the stepwise discriminant function analysis. Table 1 summarises the eight standardised canonical discriminant coefficients that were included in the discriminant function analysis. These coefficients describe the relative contribution of each of the selected choice factors in determining the selection or non-selection of an ethnic group. Larger standardised coefficients therefore indicate a greater contribution of the respective variable to the discrimination between groups.

Table 1. Standard canonical discriminant function coefficients

Choice factors	Function 1	Function 2	Function 3
Quality of teaching	-0.25819	0.15444	0.06452
Entry requirements	0.21061	-0.02236	0.78572
Sports programmes	-0.10389	-0.48753	0.36721
Social life on campus (eg RAG, music festivals, campus dances)	-0.64475	0.19677	0.16534
On-campus housing / hostels	-0.20198	0.38845	-0.09277
Friends went there	-0.22053	-0.30846	0.06624
Financial assistance (eg bursaries, loans)	0.16243	0.75743	-0.14281
Multi-cultural / diversity	0.67259	-0.00322	0.18934

The standardised canonical discriminant function coefficients in Table 1 indicate large coefficients for “social life on campus” and “multi-cultural/diversity” on Function 1 (absolute values), whereas Function 2 has a relatively larger coefficient for “financial assistance”. Function 3 has a relatively large coefficient for “entry requirements”. An inspection of the mean discriminant scores (centroids) for each group can assist to explain between which of the groups the respective functions discriminate. Table 2 outlines the canonical variables evaluated at group means.

Table 2. Canonical variables evaluated at group means

Group	Function 1	Function 2	Function 3
Black high academic performers	0.70469	0.34929	0.18157
Black average academic performers	0.70416	-0.12055	-0.10836
White high academic performers	-0.61360	0.18396	-0.04725
White average academic performers	-0.35829	-0.43626	0.11216

The canonical discriminant functions evaluated at group means (group centroid) suggest that both average and high academic black performers value the multi-cultural nature of an institution (positive mean scores on Function 1 in Table 2 are in line with the high positive coefficient for the multi-cultural variable in Function 1 of Table 1). On the other hand, both white groups (average and high academic performers) find a social life on campus to be an important choice factor. The high academic performers (both black and white) consider financial assistance to be an important choice factor. It is interesting that the average academic performers of both ethnic groups feel that sports programmes are an important choice factor. Black high academic performers and white average academic performers both indicated that the entry requirements of the institution are important when selecting an institution.

Moreover, the canonical discriminant functions evaluated at group means show that white high academic performers have negative values on Functions 1 and 3 and a positive value on Function 2 in Table 2. Since the choice factor of on-campus housing has negative signs on Functions 1 and 3 and a positive value on Function 1 in Table 1, this suggests that white high academic performers attach more importance to the availability of accommodation on campus. White average academic performers have negative values on Functions 1 and 2 and a positive value on Function 3 in Table 2, showing that sports programmes and friends who studied at the institution are more important to them (as this choice factor has negative values on Functions 1 and 2 and a positive value on Function 3 in Table 1).

The final criterion for assessing the discrimination value is the percentage share of cases that would be classified correctly on the basis of the discrimination functions. Table 3 shows the results in a classification matrix.

Table 3. Classification matrix

Actual group (N=931)*	Predicted B-H performers (%)	Predicted B-A performers (%)	Predicted W-H performers (%)	Predicted W-A performers (%)
Black high (B-H) performers(n=135)	47.4	24.4	20.0	8.2
Black average (B-A) performers (n=263)	31.9	34.6	14.1	19.4
White high (W-H) performers (n=350)	15.4	8.0	49.1	27.4
White average (W-A) performers (n=183)	10.4	18.0	32.3	39.3

* Sample excludes coloured and Indian respondents as well as missing responses.

Results from Table 3 indicate that for the high-performing black group, 47.4% of the variables were correctly classified, whereas for the lower performing black group this figure was 34.6%. For the high-performing whites, 49.1% were correctly classified, with the lower performers recording a figure of 39.3%. The variables indicate a relatively high degree of successful prediction as to which academically performing ethnic group will consider the eight choice factors to be more important and which will not, with these groups being accurately classified 42.9% of the time.

At face value the accuracy of the discriminant function may seem low. It was therefore decided to consider the suggestion by Malhotra (2004) to determine whether the classification accuracy achieved by discriminant analysis was approximately 25 per cent greater than that obtained by chance. The following calculations were made to determine whether the model in Table 3 has satisfactory predictive power.

Firstly, the proportional chance criterion was calculated to evaluate model validity. This criterion took a value of 28 per cent $[(135/931)^2 + (263/931)^2 + (350/931)^2 + (183/931)^2]$, while 42.9 per cent of the cases were correctly classified with this function. This means that overall classification accuracy was higher than the proportional chance criterion value (42.9% > 28%). The chance criterion was then used to evaluate whether the present function achieved a 25 per cent margin. The percentage of cases correctly classified in the present model was again higher than the chance criterion (42.9 > 35% = 28 x 1.25).

IMPLICATIONS FOR HIGHER EDUCATION INSTITUTIONS

The study showed that irrespective of academic performance, diversity and social life are the two most powerful discriminators between black and white students - with black students rating diversity as the most important and white students rating social life as the most important.

Since the findings show that black students select a higher education institution on the basis of their perceptions of the multi-cultural nature of the institution, higher education institutions should create feelings of closeness, acceptance and inclusion to enhance the recruitment of black students. This finding supports comments by Higher Education of South Africa (HESA) that some institutions still have alienating institutional cultures (MacGregor 2009), which may explain why this factor has emerged as the discriminatory factor among all the choice factors. The findings also suggest that higher education institutions could view black and white students as two separate market segments with different needs and preferences that require different marketing strategies. Such tailor-made strategies will guide South African higher education institutions to address the National Plan on Higher Education's goal of achieving diversity in the higher education system. Recruitment strategies and communication messages to black students should focus on the existence of a multi-cultural climate at the institution.

On the other hand, the results of the study indicate that a recruitment strategy for white students should mainly focus on providing opportunities for a social life on campus, complemented with the other important factors in the choice set. Social life is considered to be an important source of consumer motives and goals, as many consumers' behaviour is motivated by the desire to be integrated or affiliated with other people (Arnould et al. 2004, 288). Findings from a previous study by Cross and Johnson (2008) also indicated that students' needs are fragmented in terms of socio-cultural activities, leisure and recreation activities and sports. It is clear from the results that the provision of a social programme, as part of the overall student life experience, is the strongest discriminator for white students. The findings suggest that strategies need to be implemented to allow institutions to become more responsive to student needs (specifically those of white students) in terms of a social life on campus. Higher education institutions will have to investigate what type of social activities students prefer and focus their attention on those aspects.

With respect to academic performance, both black and white high performing students considered financial assistance to be an important criterion when they select a higher education institution. Currently differential pricing of study programmes exists across institutions as tuition fees are determined by the specific higher education institution. Owing to the changed educational landscape, many South African universities had to adapt to the decrease in public funding by adjusting (increasing) their tuition fees. The expressed need of high performing students for financial assistance seems valid because these students are serious about their studies, and who may even want to consider post-graduate studies in the future. These students may also expect to receive bursaries because they are high performers and therefore will only consider an institution that can "reward" their above-average academic performance.

An interesting finding is that average performing individuals (irrespective of ethnic orientation) value sports programmes as an important choice factor. Findings from previous studies have attempted to provide reasons for the observed lower academic performance of, for example, student athletes. These reasons included athletes' lack of motivation to do well academically as well as the amount of time spent training by athletes (Bhattacharyya 2005). Findings from a study by Judson et al. (2004) determined that although student athletes value the academic character of a university, sports activities are the most important criteria for them. However, low graduation rates within an athletic programme can severely damage the reputation of a university (Judson et al. 2004, 24) and HEIs should manage this potential problem. Conversely, successful sports programmes can serve as an effective means of providing HEIs with national visibility and can influence the public image and prestige of a university.

If used effectively, the study of the higher education selection process can provide valuable information in developing marketing, recruitment and retention strategies that are in line with the National Plan on Higher Education's policy goals. Many higher education institutions seem to expend a great deal of effort on 'selling' their institution to prospective students. Institutions can use the results from this study to develop marketing strategies designed to attract sufficient numbers of students with the desired ethnic and academic characteristics.

LIMITATIONS AND RECOMMENDATIONS

The findings of this study cannot be generalised to the South African population, as the composition of the non-probability sample only included six universities in South Africa. It is suggested that future studies attempt to draw a representative sample from all higher education institutions in South Africa, representing the four major ethnic groups, namely black, white, coloured and Indian. However, despite the non-representation of the sample, the sample size does add to the validity of the findings.

Future research could focus on diversity as the most discriminating factor. For example, was diversity cited as the most important selection criterion because black students do not feel that higher education institutions are culturally sensitive, or because they believe that only certain institutions have undergone a process of transformation. Future research on choice factors should focus on gaining a better understanding of the diverse nature of South African students when selecting an educational institution, similar to the American CIRP surveys.

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ENTERPRISE FINANCIAL MONITORING IN INNOVATIVE SOLUTIONS GENERATING

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ABSTRACT

This article is dedicated to solving problems of a management quality financial control organization in an enterprise in accordance with Innovative solutions generating. The problems of a quality control, management quality and financial management quality are the key problems in any enterprise. This very problem can be solved by constant enterprise financial monitoring. Therefore the problems of innovative solutions generating can be solved by constant enterprise financial monitoring & by using its results in decision making of innovations. In order to do optimal solutions for innovation in this article is proposed a table, based on data from the Financial monitoring report.

INTRODUCTION

We need finance management in any work on an enterprise, especially in new, innovative works, such as business strategies and technological innovations, in innovative solutions generating, its elaboration and realization. Financial monitoring is a systematic, independent and documented process for obtaining financial monitoring evidence and evaluating it objectively to determine the extent to which financial monitoring criteria are fulfilled. This article continues the solving problems of a quality control, management quality and financial management quality in an enterprise, the questions of organization and realization report preparation and content in the financial monitoring.

FINANCIAL MONITORING REPORT PREPARATION AND CONTENT

The financial monitoring team leader should be responsible for the preparation and contents of the financial monitoring report. The financial monitoring report should provide a complete, accurate, concise and clear record of the financial monitoring and should contain audit conclusions on issues such as the following, if within the financial monitoring objectives and scope:

- extent of conformance of the management system to the financial monitoring criteria;
- the effective implementation and maintenance of the management system;
- the ability of management review process to ensure the continuing suitability, adequacy, and effectiveness of the management system.

The financial monitoring report should also include, or make reference to the following:

- the identification of the organizational and functional units or processes financial monitored;
- the identification of the financial monitoring client;
- the identification of financial monitoring team members;
- the date(s) and place(s) the on-site financial monitoring activities were conducted;
- the financial monitoring criteria, and, if applicable, a list of reference documents, against which the financial monitoring was conducted;
- the financial monitoring findings.

The financial monitoring report can also include or reference, as appropriate:

- the agreed financial monitoring objectives, scope and plan;
- the time period covered by the financial monitoring;
 - the identification of the financial monitree's key representatives participating in the financial monitoring;
- a summary of the financial monitoring process including any obstacles encountered;
- a statement of the confidential nature of the contents;
- a distribution list for the financial monitoring report;
- confirmation that the financial monitoring objectives have been accomplished within the financial monitoring scope in accordance with the financial monitoring plan;
- any agreed follow-up action plans;
- any unresolved diverging opinions between the financial monitoring team and the financial monitree;
- recommendations for improvement, if specified in the financial monitoring objectives;
- areas not covered, although within the financial monitoring scope.

REPORT APPROVAL AND DISTRIBUTION

The financial monitoring report should be issued within the agreed time period. If this is not possible, the reasons for the delay should be communicated to the financial monitoring client and a revised issue date should be agreed.

The financial monitoring report should be dated, and reviewed and approved as defined in financial monitoring programme procedures.

The financial monitoring report should then be distributed to recipients designated by the financial monitoring client.

The financial monitoring report is the property of the financial monitoring client and confidentiality should be respected and appropriately safeguarded by the audit team members and all report recipients.

RETENTION OF DOCUMENTS

Work documents, including records, and reports pertaining to the financial monitoring should be retained or destroyed by agreement between the participating parties and in accordance with financial monitoring procedures and any applicable legal and contractual requirements.

Unless required to do so by law, the financial monitoring team and those responsible for managing the financial monitoring programme should not disclose the contents of documents, any other information obtained during the financial monitoring, or the financial monitoring report, to any other party without the explicit approval of the financial monitoring client and, where appropriate, the approval of the financial monitree. If disclosure of the contents of any financial monitoring document is required, the financial monitoring client and financial monitree should be informed as soon as possible.

REACHED FINANCIAL MONITORING CRITERIA IN INNOVATIVE SOLUTIONS GENERATING

In the development of innovative solutions, we must understand:

- in which the financial condition of the company;
- what nominal and potential financial resources it possesses;

- source of elaboration and realization of innovation;
- what guarantees the growth of the company's value or increase its capitalization.

The answer to this question can be achieved level of “complete criterion of quality enterprise finance management (CCQEFM)” [2: Anthony, Dearden, Govmdarajan. 2000; 4. Davenport, Prusak, 1998; 17: Битюцких, 2007; 18: Грязнова, 2005; 20: Караванова. 2006; 21: Лапуста, 2007] (see pic. 1).

Pic.1. A structure of complete criterion of quality enterprise finance management (CCQEFM)

The level of CCQEFM	Finance index (fact) of					
	Finance stability	Liquidity	Probability of bankruptcy	Return on sales (Profit margin)	Return on assets	Return on equity
Optimal	Absolute	Absolute	Low	Increasing	Increasing	Increasing
	Normal					
Low	Unstable	Low	Middle	Invariable	Invariable	Invariable
Critical	Critical	Critical	High	Decreasing	Decreasing	Decreasing

The finance statement level criterions represents in tab.1.

Table 1: The finance statement level criterions

Level	State	Formula
Optimal	absolute or normal finance stability	$FA + Inv \leq Eq + LTD$
	absolute liquidity	$DA \geq DD$
	low probability of bankruptcy	$MCA \geq CL$
	return on sails	$ROS_{bp} > ROS_{ep}$
	return on assets	$ROA_{bp} > ROA_{ep}$
	return on equity	$ROE_{bp} > ROE_{ep}$
Low	finance instability	$Eq + LTD < FA + Inv \leq Eq + LTD + STC$
	low liquidity	$DA \geq 0,5 * DD$
	middle probability of bankruptcy	$MCA \geq 0,75 * CL$
	return on sails	$ROS_{bp} = ROS_{ep}$
	return on assets	$ROA_{bp} = ROA_{ep}$
	return on equity	$ROE_{bp} = ROE_{ep}$
Critical	critical finance stability	$FA + Inv > Eq + LTD + STC$
	critical liquidity	$DA < 0,5 * DD$
	high probability of bankruptcy	$MCA < 0,75 * CL$
	return on sails (profit margin)	$ROS_{bp} < ROS_{ep}$
	return on assets	$ROA_{bp} < ROA_{ep}$
	return on equity	$ROE_{bp} < ROE_{ep}$
FA - fixed assets; Inv - inventory Eq - equity LTD – long-term debt DA - discount asserts (Cash + 0,5* Accounts receivable + 0,3* Inventory) DD - discount debts (Accounts payable + 0,5* Short-term debt + 0,3* Long-term debt) MCA - material current assets (cash and inventory) CL - current liabilities STC - shot-term credit ROS _{bp} – return on sails at the beginning of the analyzing period; ROS _{ep} – return on sails at the end of the analyzing period; ROA _{bp} – return on assets at the beginning of the analyzing period; ROA _{ep} – return on assets at the end of the analyzing period; ROE _{bp} – return on equity at the beginning of the analyzing period;		

Level	State	Formula
ROE _{ep} – return on equity at the end of the analyzing period;		

If we calculate the finance indexes by formulas tab 1 and data from appendix A, we will have the following results (tab.2):

Table 2. The finance statement level criterions.

Index	Finance index (fact) in analyzing period		Tendency
	at the beginning	at the end	
finance stability	critical finance stability 22400 > 19300	critical finance stability 34000 > 27490	invariable
liquidity	low liquidity 6040 -----=0,53 11330	critical liquidity 5410 -----=0,41 13140	bad
probability of bankruptcy	middle probability of bankruptcy 9525 ≤ 9800 ≤ 12700	middle probability of bankruptcy 10785 ≤ 9800 ≤ 14380	invariable
return on sails	0,20	0,21	good
return on assets	0,23	0,23	invariable
return on equity	0,49	0,47	bad

The enterprise “**complete criterion of quality enterprise finance management (CCQEFM)**” will be the following (see pic. 2).

Pic.2 The enterprise complete criterion of quality enterprise finance management (CCQEFM).

The level of CCQEFM	Finance index (fact) of					
	Finance stability	Liquidity	Probability of bankruptcy	Return on sales (Profit margin)	Return on assets	Return on equity
Optimal	Absolute	Absolute	Low	Increasing	Increasing	Increasing
	Normal					
Low	Unstable	Low	Middle	Invariable	Invariable	Invariable
Critical	Critical	Critical	High	Decreasing	Decreasing	Decreasing

In this very case an enterprise financial manager must make a solution how the enterprise can return in unstable finance state and how it can increase its profit. In order to do optimal solutions for innovation one can filled the following table 3, based on data from the Financial monitoring report.

Table 3. The enterprise complete criterion of quality enterprise finance management (CCQEFM).

The level of CCQEFM	Solutions					
	in which the financial condition of the company	what nominal financial resources it possesses	what potential financial resources it possesses	optimal source of realization of innovation	optimal source of realization of innovation	what guarantees the growth of the company's value or increase its capitalization
Optimal						
Low						
Critical						

Therefore the problems of innovative solutions generating can be solving by constant enterprise financial monitoring & by using its results in decision making of innovations.

APPENDIX A

Balance Sheets as of December 31, 2008 and 2009 (\$ in millions)					
Assets	2008	2009	Liabilities and Owners' Equity	2008	2009
Current assets			Current liabilities		
Cash	1,500	0,600	Accounts payable	8,700	9,380
Accounts receivable	4,100	2,270	Short-term debt	4,000	5,000
Inventory	8,300	12,250	Total	12,700	14,380
Total	13,900	15,120	Long-term debt	2,100	4,200
Fixed assets	14,100	21,750	Owners' equity		
Net plant and equipment	14,100	21,750	Common stock and paid-in surplus		
			Retained earnings		
			Total	13,200	18,290
Total assets	28,000	36,870	Total liabilities and owners' equity	28,000	36,870

Income Statement (\$ in millions)	2008	2009
Net sales	32,000	41,000
Net income	6,500	3,700

APPENDIX B

Main Definitions

Financial monitoring is a systematic, independent and documented process for obtaining financial monitoring evidence and evaluating it objectively to determine the extent to which financial monitoring criteria are fulfilled.

Financial monitoring criteria set of policies, procedures or requirements used as a reference.

Financial monitoring conclusions are the outcome of a financial monitoring, reached by the financial monitoring team after consideration of the financial monitoring objectives and all financial monitoring findings.

Financial monitoring client organization or department requesting a financial monitoring.

Financial monitoree is an organization or department being monitored.

Financial monitor is a person with the competence to conduct a financial monitoring.

Financial monitoring team is one or more financial monitors conducting an financial monitoring. One financial monitor of the financial monitoring team is appointed as financial monitoring team leader. The financial monitoring team can include financial monitors-in-training and, where required, technical experts. Observers can accompany the financial monitoring team but do not act as part of it.

Technical expert is a person who provides specific knowledge or expertise with respect to the subject to be monitored. Specific knowledge or expertise includes those on the organization, process, or activity to be monitored, as well as language or cultural guidance. A technical expert does not act as a financial monitor in the financial monitoring team.

Financial monitoring programme set of one or more financial monitors planned for a specific time frame and directed toward a specific purpose.

Financial monitoring plan is a description of the on-site activities and arrangements for a financial monitoring.

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QUALITATIVE ANALYSIS OF PARTICIPATION IN DECISION MAKING (PDM) AND ORGANIZATIONAL COMMITMENT (OC): SAUDI'S CASE

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ABSTRACT

Organizational commitment (OC) of employees has been found to be a function of other organizational variables such as participation in decision making (PDM). Many researchers have found that employees would like to be included in the decision making processes that affect their work in the organization. This exploratory study surveyed the non-management professional staff in the Road Projects Department (RPD), Ministry of Works and Housing, Saudi Arabia. Its objective is mainly to gather as many preliminary insights as possible in preparation for a more extensive study in a later stage. The data clearly signified that majority of the respondents were unhappy and frustrated with the lack of participation in the decision making process in the RPD. Their stories and shared views portrayed considerable disillusionment with an organizational culture that is not truly participative. This climate inevitably affects their commitment to the organization.

INTRODUCTION

One of the major concerns in the field of human resource management which is loaded with ideological and moral connotations is employee participation in decision making (PDM). As many other ideological movements, the impetus of PDM has come from intellectuals rather than from workers (Locke & Schweiger, 1990; Razali, 2009; Bernandi and Guptill, 2008; Sumrall, et al; 2008). Views which have been advocated or are cited in numerous published books and articles. Systems of management which do not stress PDM have been accused of being "exploitative", "dictatorial", "inhuman" and even "neo-Nazi" at worst and hopelessly "anachronistic and inefficient" at best (Locke & Schweigner, 1990).

There is no consensus on the set of necessary and sufficient contingency factors that need to be considered for most types of organizational settings and decision making issues. In addition, little direction exists as to how one can productively diagnose factors that are repeatedly advanced as essential for consideration (Bernandi and Guptill, 2008; Razali, 2008; Razali, 2009).

OBJECTIVES AND SCOPE OF THE STUDY

The purpose of this pilot study which is exploratory in nature is to investigate the relationship between attitudes of non-management professional staff towards participation in decision making and their organizational commitment in the Saudi Arabia Road Projects Department (RPD). Also it intends to analyze the extent to which organizational variables and individual/personality variables moderate or codetermine the participation-organizational commitment relationship.

SIGNIFICANCE OF THE STUDY

The general management literature suggests that the current state of knowledge suggests that we are far from able to identify generic, pan-organizational principles of participative decision making. Knowledge is needed on

how participative management can be applied in specific types of organizational environment. Thus, this study is important from the standpoint of management in Saudi Arabia and developing countries. It will add to the scant Saudi Arabian literature on management and organizational behavior. This study can also be viewed as a further development on the theory of participation. The results will provide evidence germane to existing literature on participation in the context of public organizations. The data base will be useful to further research on participation in a multiracial society, such as Saudi Arabia.

LITERATURE REVIEW

Numerous studies conclude that a situational or contingency approach to involving employees in decision making is more appropriate. The contingency approach to management does not begin with a premise that employee involvement in organizational decision making is either good or bad but rather that the situation and set of contingency factors impinging on a specific decision making issue should determine the nature of employee participation (Razali, 2008; Razali, 2009).

Organizational commitment has received considerable attention in the literature as an important employee-organization linkage in understanding employee behavior in organizations (Mowday et al., 1982; Razali, 2008). Organizational commitment is the strength with which an individual identifies with and is involved with an organization. The Organizational Commitment Questionnaire was developed by Porter, Steers, Mowday, and Boulian to measure organizational commitment (Mowday et al., 1982). Outcomes of organizational commitment have been reported in the literature to include job performance, tenure, absenteeism, tardiness, and turnover (Wolfe and Betz, 2004). The literature has indicated influential variables which act upon organizational commitment to include age, tenure on the job, educational level attained, and gender (Mowday et al., 1982). An important outgrowth of the human relations approach to organizational theory was a third school entitled human resources (Meyers, 1994; Razali, 1992). Raymond Miles is credited with a model to summarize the sequence of human outcomes associated with application of a human resources approach to organizational theory (Meyers, 1994). The model suggests participation of employees in decision making leads to an overall increase in quality of decision outcomes as subordinates exercise responsible self-direction in the accomplishment of decisions they helped to establish, which results in more satisfied employees, improved performance, and reinforcement of creative decision making (Meyers, 1994). Human resource theory and its emphasis on the linkage between employee participation, organizational commitment, job satisfaction, and higher levels of performance have received high levels of acceptance and following over the last few decades (Meyers, 1994; Wong, et. al., 2006). Human resource theory provides a theoretical foundation of support to the participative or shared governance movement and represents a significant theoretical alternative to classical organizational management (Meyers, 1994; Wong et. al., 2006 and Sumrall et. al., 2008).

METHODOLOGY

Qualitative versus Quantitative Approach

Considerable disagreement exists over the appropriateness of various methods and methodological stances for conducting research in the fields of social science. One debate of growing intensity centers on the distinction between quantitative and qualitative method (Lincoln and Guba, 1985). By quantitative method, researchers have come to mean techniques of randomized experiments, quasi-experiments, paper and pencil "objective" tests, multivariate statistical analyses, sample surveys, and the like.. In contrast, qualitative methods include ethnography, case studies, in-depth interviews, and participation observation. The qualitative aspects, as proposed by Glaser and Strauss's (1967) grounded theory has been inserted into this study.

The Research Site

The surveys were conducted at the Road Projects Department (RPD) headquarters office which is located in the office of Ministry of Public works and Housing in Riyadh, Saudi Arabia. The RPD is the technological arm of

the Government and serves as the main implementing agency for carrying out infrastructure projects for the whole country. It was formed with the objective of implementing infrastructure development, namely roads, water supplies, buildings, airports, ports and jetties to meet the needs of the nation.

Data Collection Procedures

Through the assistance provided by the Head of Management Division, twenty-five non-management professional staff in the Management Division of RPD voluntarily agreed to participate in the survey. They are professionals employed full time and do not fit the definition of either a top or middle manager. They do not hold managerial positions, such as head of a division or unit within the department. Basically, they are involved in the technical aspects of the work and not in the administrative side. After obtaining their names and addresses, a letter of invitation was sent to each respondent to attend a special meeting on a specific date. During the meeting the researchers explained in great length regarding the survey. Before the meeting was adjourned, each respondent was given a set of questionnaire with a pre-stamped envelope.

RESULTS AND DISCUSSIONS

The results are categorized into several categories: a) general perceptions toward participation in decision making practices; b) relationship between participation in decision making and organizational commitment; and c) factors affecting the decision-making process.

General Perceptions Toward Participation in Decision Making

When respondents were asked a general question, "What are your comments about the decision making process in the organization?" From the analysis, 17 (68%) expressed their dissatisfactions, 3 (12%) were moderately satisfied and 5 (20%) indicated high degree of satisfaction. Commenting on the present scenario of decision making processes in the department, one non-management professional bluntly indicated "we lack participatory management here!" Another strong remark supports the above view:

With the arrival of a new head in our division, there was great hope of improved staff participation in decision making. Unfortunately, the new regime has proven to be authoritarian in the extreme. This autocratic approach to the staff has resulted in "non-participation" in decision making, wide staff frustration, and the sharp decline in pride of jobs done well. Commitment of the majority of staff has gone down the drain!

One of the shared perceptions among these dissatisfied respondents is the on-going conflict between management and the non-management professional staff on matters of authority, control, and decision making prerogative. One person wrote:

Management does not want to let go their management influence in the decision making process. It's hard for them to sit there and listen to us. It's a kind of role reversal type situation. Although it may benefit employees like me, I believe especially first line managers have a hard time adjusting to that type of situation.

It is frustrating to discover that, despite the merits of the participative management concept, they have been in a vortex of managerial resistance to the very concept. One respondent's comments were so comprehensive and perceptive that they merit reporting here. While being positive about the ideological shift toward participative management in the Department, he also highlights some concerns:

I am delighted by the fact that this department is moving more towards involving employees at various levels in the decision making process. However, I would like to add here that I am of the opinion that the cry for participation at all levels should be analyzed and appraised carefully. To be sure, any thinking manager should recognize that he must listen to the staff at all levels, be sensitive to the attitudes and needs of the staff, and at the same time have enough common sense to sort and implement suggestions which are feasible and compatible with overall goals of the department. These goals must be recognized by the total staff as service goals. I do not

believe that the welfare of any individual should be in any way ignored or trampled upon, but I do think there should be a middle ground of rationality where decision making privileges are coupled with a strong sense of responsibility. I think it is most desirable that the total staff to have input into the decision making process. As there are generally conflicting sets of interests, as well as opposing philosophies, this may take some doing. This participation can be accomplished through cooperative committees, task forces, etc., and individual votes at times. However, I do not believe that every decision requires total participation. It is neither practical nor advantageous. Change is inevitable, compelling and necessary. Diversities in a staff add to its problems, but a mingling of ideas, with a mutual respect and, yes, even kindness should be the means to the end in this decision making process. Somewhere there is a happy medium of exchange, but it must be build on trust, understanding and responsibility.

In summary, there was a substantial majority of non-management professionals who were very pessimistic about the climate of the organization. They believed that lack of trust and tension between managers and non-managerial professional staff were prevailing throughout the organization. Another group of non-management professionals considered that the days of portraying the character of employees as passive recipients of instructions and orders were waning in the organization. From their perspectives, employees in the Road Projects Department were becoming more involved as active participants in their unit's decision making process.

Relationship Between Participation in Decision Making and Organizational Commitment

To search for the related contingent variables two questions were asked. One question asked: "Do you believe that an opportunity to involve yourself in the decision-making process increases your commitment to the organization? Why? or Why not?" (The respondents were asked to list the factors without ranking them in order). Although all of the respondents shared the perception that a participative decision making process improves employee commitment to the organization, they also indicated that other significant factors must not be ignored. For the purpose of this analysis, only the factors highlighted by at least fifty percent (50%) of the respondents are reported here, as shown in Table 1.

Table 1: Variables that affect employees' organizational commitment

VARIABLES	PERCENTAGE (%) & FREQUENCY OF RESPONSES
Salary	100 % (25)
Opportunity for career advancement	92 % (23)
Opportunity for innovation	72 % (18)

All of the respondents felt strongly that they were not getting the *salary* they deserved. Once salary falls from a reasonable level, it seems to become an important factor in diminishing one's commitment to the organization, even when the working atmosphere is more democratic or participative. Bluntly, one non-management professional wrote, "I will leave this public organization soon if the salary package does not improve, and I am seriously looking for better offers in the private sectors." Supporting this position, one professional staff-member explained that "salary is the main reason for low commitment because professional staff like me in the public sector always compare what their counterparts in the private sector earn and realize that they are worse off." Another non-management professional, who works as a training specialist, suggested that "limited career promotion or advancement was another factor that can affect employee commitment to the organization." In most public organizations in Saudi Arabia, the job is characterized by a limited chances of advancement. This low opportunity for advancement in the career "affects individual aspirations, self-esteem and commitment to the organization." Another respondent felt that "people who feel stuck in his or her career ladder often disengage and become less committed." In summary, although all the respondents perceived that participation in decision

making is instrumental in enhancing employees' commitment to the organization, it is not the only factor that must be considered.

Factors Affecting the Desire to Participate in Decision Making

Another question asked was, "What are the factors that can enhance and inhibit your willingness to participate in the decision making process?". The principle used in analyzing the previous questions was applied here, where only factors highlighted by at least fifty percent (50 %) of the respondents are discussed. The compelling structural and individual variables revealed by the exploratory survey are set forth in Table 2.

Individual/personality variables

All respondents shared perceptions that *attitudes of superiors* toward PDM were rather negative in the Road Projects Department and this factor affects the desire of the lower staff to participate in decision making process. They perceived management as having simply introduced the concept of participative management because it was mandated by politicians or higher officials in the Saudi Public Service; but, in actual day-to-day operations, they are paying only lip-service to participation. Their answers also illustrated that management had an attitude of looking down on the employees. .

Table 2: Variables that affect employees' willingness to participate in decision making process

VARIABLES	PERCENTAGE (%) & FREQUENCY OF RESPONSES
<i>a. Individual/Personality Variables</i>	
i. Attitudes of superiors toward participation	96 % (24)
<i>b. Organizational Variables</i>	
i. Communication process	88 % (22)
ii. Career advancement opportunities	80 % (20)
iii. Conflict/ Ambiguous superiors' expectations	72 % (20)
iv. Reward system	72 % (18)
v. Salary	72 % (18)

Their answers also illustrated that management had an attitude of looking down on the employees. For them, this attitude was antithetical to the true spirit of participation in decision making. It is ironic that the very management which introduced and implemented the participative concept in the organization is perceived by the employees as more interested in protecting territories and prerogatives than in advocating and demonstrating openness and commitment to a participative culture. One non-management professional staff-member wrote:

Something I'll never understand is that they allowed employees to participate in the decision making process, but there isn't a single professional staff at my level on any steering committees which decide whether your solution or resolution should be adopted. I don't understand, and they're saying we can work on the problem and give suggestions, but we have no say in the end. For example if I were to work on a certain problem of a particular project for six months, my recommendation could be erased in one meeting with the steering committee. And it just doesn't seem right that there isn't a couple of professional staff at my level on these steering committees. We are being look down upon. The management attitude toward us is disgusting!

Moreover, in the midst of bureaucratic tendencies, employees shared a view portraying themselves as victims of some managers who strive to take credit for preemptive use of employee ideas. Managers were perceived as not eager to give credit or acknowledge what are distinctly employees' ideas.

A *sense of competency* is also regarded by the majority of respondents as an important determinant for staff participation in the decision making process. If the staff-member has a high competency level, and his or her competency is highly relevant to the issues covered by a decision making unit, then he or she will be more inclined to participate. A respondent described his position relative to this factor by saying that "when I am being requested to participate in the decision making process not related to issues or areas beyond my knowledge and skills, by all means I try to turn down the requests because my philosophy is that when I participate, I want to contribute in all positive and constructive ways. " In the same vein, another non-management professional staff wrote that:

In almost every corner of the organization you encounter a very energetic employee who wants to participate in the affairs of the organization but I don't want to embarrass myself by giving ideas and suggestions on issues in which I don't have an iota of knowledge or skills.

Organizational variables

The respondents who wrote elaborately on this question discussed in detail the *communication process* as a major organizational variable inhibiting their desire to participate. Their problems with management center on a) listening and b) one-way communication. One non-management professional stated that "management, particularly the upper management is out of touch with the day-to-day realities of the participative process, particularly at the division level." Another problem related to communication process that hampers the employee motivation to participate is the "one-way flow of authority from above." One respondent indicated his frustration with the tendency of management to make decisions and impose them on the employees below, leaving no choice but to comply. Another respondent argued that everything that we do, it's communicated from upstairs." Sharing another perception's of the communication problem, a computer analyst explained that "basically it is the file that speaks and this does not encourage people to participate and share their ideas."

The situation is made worse by unresponsiveness, as another staff-member observed:

Communication goes up and never comes back down. It goes up in two weeks and it takes six months to come back. Even then, they don't direct it to the people that input it; they direct it to the Head of Division or project leader. We get letters from upper management that says, respond to this. You have two weeks to respond to it. Okay, you respond in two weeks. Six months, and you don't hear a damn word. This kills your desire to be active participants in any decision making process because management are not doing their part.

Lack of career advancement opportunities was considered by the majority of respondents as another organizational inhibiting variable that affects their willingness to participate in decision making. One non-management professional said that, "there is no point to crack your brain and contribute your ideas in decision making under limited opportunities for career advancement.

Besides depicting management as the villain, non-management professionals also portray themselves as victims of an organizational scene that is saturated with *conflicting/ambiguous superiors' expectations*. This is another major factor that destroys their interest to participate in a decision making unit. As one respondent asked "If you don't have a clear sense of direction, how can you participate in making decisions?" Another non-management professional explained his frustration when confronted with conflicting expectations from superiors:

Many times, I found a lot of conflicting instructions in my assignments from my superiors. On other occasions, my work assignments and priorities change in midstream. This created anxiety-stress, tension, and jeopardized my eagerness to participate.

Another respondent reported on the experience with conflicting expectations from the superior:

Many times, I am just confused about my superiors' expectation of me. On one side they are concerned about the quality and on the other they stress quantity. For me this confusion is an unmitigated evil! And this pushed me into a situation where I have low levels of trust, liking, and respect for those superiors. And I tend to have a continued sense of futility and am severely demoralized to get involved in any decision process.

Non-managerial professionals also indicated that the *reward system* in the organization could enhance the employees' willingness to participate in the decision making process. As one respondent wrote, "the reward policy in this organization continues to be unsatisfactory and does not applaud people who are actively involved in contributing ideas in decision making". One professional staff-member suggested that, "in order to encourage people to participate constructively in the decision making process, there should be either substantial monetary rewards or psychological rewards such as plaques, certificates, recognition luncheon or a banquet."

MANAGERIAL IMPLICATIONS

Thus, in an effort to improve performance and productivity, the managers in Saudi Arabia public service should seek to expand their conceptions of authority to include a sense of shared fate and responsibilities through a participative mode of operation in achieving a common good. However, when undertaking participation, managers in Saudi Arabia and elsewhere must remember that people can get slide into a situation where they are given freedom they cannot handle. Managers who are interested in using participation as an organizational tool must remember that true participation is not the absence of structure letting employees go off and do whatever they want but rather a clear framework that enables people to work within established boundaries in an autonomous and creative way.

There is also a need for a strong, clear educational effort by practitioners in both public and private sectors in Saudi Arabia to integrate participative management into their training programs. The Institute of Public Administration (IPA) of Saudi Arabia and other training agencies should also move into this direction and developed a collective effort to organize simple, standard and local-based programs of such skill development for the managers.

Also, it was shown that various organizational and individual/personality factors positively affect the relationship between participation and commitment. For the practicing managers who have the zeal and desire to implement participative management, it may be beneficial to recognize this relationship and the factors they may have overlooked or may not have been aware of, and to incorporate them in their strategy of implementing participative management.

However, it is important for the managers to recognize that PDM is only one of the factors that affects commitment. From this initial exploratory survey it is clear that there are some other factors (salary, opportunities for innovation, opportunities for career advancement) that also contribute toward enhancing commitment among employees. Razali (2008) suggests that those institutional structures such as who works with whom, who dominates with whom, and how members of occupational groups come in contact with one another are some important determinants of organizational behavior of both men and women.

Upon recognizing and accepting that participation is a right and may very well lead to positive organizational outcomes, top management would do well to incorporate the element of participative management in the department's "philosophy" statements. Various writers, such as Kanter (1983), Halal and Brown (1981), Razali (2008; 2009), Sumrall (2008), Bernandi and Guptill (2008) have suggested that the development of such clear and public statements of organizational values would be the first step in organizational change toward a more effective pattern of participative management.

CONCLUSION

The above analysis provides preliminary insights into a distinct community of non-management professional staff who are not enjoying their working life due to lack of participation in the decision making processes in the

Saudi Arabia Road Projects Department. They are also frustrated by top management's waning support for participative approach in the decision making process. Other distressful issues/problems are communication dysfunction, low level of competency, limited opportunities for career advancement, lack of encouragement for innovation, an unsatisfactory reward system, low salary, and confusion over superiors' expectations. What results is a climate of paranoid and distrust among non-management professional staff, which inevitably affects their commitment to the organization.

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LEGAL FRAMEWORK AND APPROPRIATE POLICY FOR ADULT PROSTITUTION

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ABSTRACT

Adult prostitution is a contested issue in which societal opinions are often polarized. The law and adult prostitution draws together a number of themes, ranging from the constitutional protection of human rights, including those of women, to the question of the role of the law in enforcing particular moral or religious values. The socio-economic context, in which prostitution occurs, and the impact of the current law relating to prostitution on prostitutes themselves as well as society as a whole are important considerations in determining the appropriate policy and legislative response. This paper seeks to address the relevant themes and to provide some of the necessary contextual information to deepen the analysis of the need for law to reform.

INTRODUCTION

The Constitution commits South Africa to “heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights.” (Preamble, Constitution of the Republic of South Africa, 1996). It also requires the state to promote these democratic values. Equally important is the recognition of the principle of *ubuntu* and our collective responsibility for the well-being of all.

Over the next decade South Africa could become a global trading Mecca and demand the imperatives set by the South Africa’s constitutional democracy to amend the laws dealing with prostitution. The paper will discuss the impact of the current legislative framework in South Africa on prostitutes and prostitution and society as a whole. The diversity of moral responses and the issue of prostitution and the consequent multiplicity of policy and legislative responses across the world play a role. Four models were identified that enable a discussion of the appropriate legislative response for South Africa, namely total criminalisation, partial criminalisation, non-criminalisation and regulation. Law enforcement in detail is discussed and the limited and selective nature of this enforcement and the manner in which prostitute’s rights have been violated.

International obligations that were ratified by South Africa without reservation were taken into consideration in considering research and arguments about the connections between prostitution and crime in the need to protect women against violence and exploitation. The current law impact on persons and society were assessed.

METHODOLOGY

This paper represents an analysis of the current thinking and opinions on the law relating to adult prostitution contained in research at local, national and international levels. It takes into account compliance obligations under international human rights treaties and the Constitution. It assesses the impact of current law on persons and society and the extent to which current laws assist the country in meeting its human rights obligations. Consideration is also given to the health challenges and imperatives, specifically those pertinent to the HIV pandemic, which are relevant to adult prostitution in a South African context.

DEFINING PROSTITUTION

The term prostitution comes from the Latin word *prostitute* which means “to cause to stand”, “to set in place”, which refers to the practice of standing in public to solicit clients. Therefore the word prostitute means to

expose publicly or to offer for sale. The shorter Oxford Dictionary refers to “the offer of sexual activity in return for payment” but it can also mean the sacrifice of a person’s self respect for the sake of personal or financial gain (Oxford Dictionary, 2002). The term prostitution encompasses the exchange of sexual acts for money or also for goods or both.

In South Africa sexual acts are frequently rendered for rewards other than monetary rewards for example food, clothes and accommodation. (Martens, Pieczkowski and Van Vuuren-Smyth, 2003) There are also relationships where young women exchange sexual favours for gifts from older men namely the “sugar- daddy” phenomenon. These women normally do not identify themselves as prostitutes.

Prostitution is described in section 11 of the Sexual Offences Amendment Act 23 of 1957 as “A person (‘A’) who unlawfully and intentionally engages the services of a person 18 years or older (‘B’) for financial or other reward, favour or compensation to B or to a third person (‘C’) –

- a) For the purpose of engaging in a sexual act with B, irrespective of whether the sexual act is committed or not; or
 - b) By committing a sexual act with B,
- is guilty of engaging the sexual services of a person 18 years or older”.

LAW AND MORALITY

The relationship between law and morality give rise to a complex jurisprudence debate. The law gives fundamental certainty to people - it provides security at a basic level (Du Plessis, 1999, 216). Western legal theoreticians distinguish the law as a means of social organization from particular morality (which is studied in ethics). A moral choice is characteristically voluntary. Rules of morality tell you what a situation should be, while the law tells you what a situation is (Britz and Ackermann, 2006, 2). The law tends to be official, external, objective and formal. Morality is dispositional, internal, subjective and informal. Yet the law and morality do not exist in separate worlds nor do they function in different spheres; they rather provide the impetus for two different kind of social strategies (Du Plessis, 1999, 217).

In reality people also conceptualise morality in relation to prostitution differently. Some may believe that prostitution is inherently immoral and may focus on the wickedness or sinfulness of sex for sale or the women engaged in prostitution. Others may focus on the harm that is caused by prostitution to society or to the prostitute herself. Given the diversity of views about the nature and causes of prostitution, and the harms related to it, governments across the world demonstrate a similar diversity of policy and legislative responses in dealing with prostitution.

EXISTING LEGAL POSITION IN SOUTH AFRICA

South Africa currently follows the model of total criminalisation or prohibition. Prostitution and related activities are criminalised by the Sexual Offences Act 23 of 1957 and the Sexual Amendment Act. The Criminal Procedure Act 51 of 1977 as well as municipal by-laws also contains provisions that are relevant to prostitution.

Section 20 (1)(a) of the Sexual Offences Act consists of the following elements: having unlawful carnal intercourse or committing an indecent act; a reward and *mens rea*. The penalty is imprisonment for a period not exceeding three years with or without a fine not exceeding R6 000 in addition to such imprisonment. Section 1 of the Sexual Offences Act defines ‘unlawful carnal intercourse’ as ‘intercourse other than between husband and wife’. The Act does not criminalise all instances of unlawful carnal intercourse only when taking place under certain specific circumstances when it is performed for reward. The term ‘act of indecency’ has been developed through judicial interpretation. In *S v A* the Constitutional Court explained it as “if it offends against recognised standards of decency. The applicable standards are those of the ordinary reasonable member of contemporary society” (1992 (1) SACR 174 (W)). The courts have accepted the dictionary definitions of ‘indecent’, namely ‘unbecoming in extremely bad taste; unseemly; offending against propriety or decency; immodest; suggesting or tending to obscenity (*S v C*, 980). The courts have also held the position against acts of indecency and is not limited to acts which would in the ordinary course of events lead to sexual intercourse. It also applies to sexual acts which do not lead to or amount to intercourse. The act must however be done for reward and it must be indecent (*S v C*, 176).

Reward could be monetary or other forms of compensation with pecuniary value or both. In *S v Jordaan* (2002) 6 SA 642 (CC) at par 48-49 the minority judgment state in light of the heading to the section “persons living on the earnings of prostitution”, the phrase “unlawful sexual intercourse or indecent act for reward” is only

capable of being read to include activity ordinarily understood as prostitution and should therefore be interpreted restrictively and not as any person. “Any person” could be applied to male prostitutes as well as female prostitutes I respect of hetero-or homosexual acts for reward.

Section 20 (1)(aA) is directed at the prostitute only and not the client. “Sunlight is justly commended as the best disinfectant, electric light as the best policeman” (Bandeis, JL) Wise words written long ago, but equally applicable to our time.

The Sexual Offences Amendment Act contains a potential anomaly. A child is legally allowed to consent to a sexual act from the age of 16 which includes touching or penetration whilst a consensual sexual act with a child is criminalised as exploitation of the child where such an act is accompanied by a reward.

In summary, the current legal position is that adult prostitution is totally criminalised for prostitutes and clients, as well as all prostitution related role players. Although child prostitutes are not subject to a criminal sanction, all surrounding role players are criminalised.

IMPACT OF THE CURRENT LAW

The impact of criminalisation on prostitutes is both subjective and objective. It could be a way in which government may choose to combat prostitution and the social ills that accompany it. The social stigma attached to prostitution also exists independently of legal responses, arising out of a moral judgment of prostitution because of the sexual nature of the work and the fact that prostitutes operate outside of conventional roles. Jivan and Perumal submit that reality reveals a picture of a segment of society largely as poor and who are vulnerable to exploitation at the hands of police, clients, pimps, landlords and even partners and identify prostitutes as immoral and relegating them to the ranks of criminals. It is subjective because prostitutes may see themselves as “less worthy” and adjust their behavior accordingly. It is objective because the criminalisation of prostitution and the attendant social stigma contribute to a climate in which society treats prostitutes with discrimination and violence, often with impunity. Prostitutes are denied their human rights. This occurs in a number of ways.

The stigma of prostitution and the fact that prostitutes are regarded as criminals by law create a series of barriers to prostitutes claiming their rights, such as the right of access to health and other services because they fear disclosure of their identity and prejudiced behavior on the part of service providers. Prostitutes are also afraid that if they seek these services and disclose their occupation they will be arrested or subject to discrimination (Fick, 2006). They try to be invisible and to avoid from those who enforce the law, namely the police. This also means that prostitutes work in dangerous places which make it very difficult for health service providers to reach them (Fick, 2006).

Secondly factors such as the criminalisation of prostitution, concurrent sexual relations, the difficulties in using HIV prevention technology, on-going exposure to high levels of violence, stigma and the barriers to accessing healthcare services compound and interlock to render prostitutes particularly vulnerable to HIV/Aids (Richter, 2008).

Thirdly the criminal nature of prostitution means that the prostitutes have no employment or workers’ rights. They operate outside the protection of labour laws because their work is illegal and they feel unable to challenge unfair labour practices. Brothel owners set their own rules and regulations and also determine the cut of fees paid by clients because they don’t need to comply with labour legislation (Legalbrief Today, 2008). Prostitutes have no written contracts of “employment” like a formal contract and therefore making them even more vulnerable to exposure. The contract is in any event illegal and therefore not enforceable.

Fourthly, the climate of criminalisation means that prostitutes are abused financially, sexually and physically by gangsters, clients, brothel owners and pimps often with impunity. Girls and women in prostitution have a morality rate 40 times higher than the national average (S v Jordaan). Prostitutes are vulnerable to all crimes of violence against women. Prostitutes are often mistreated, assaulted or verbally abused by police officers when arrested.

Lastly the impact of making an illegal existence has implications both for the ability of prostitutes to live with dignity and safety, and for their ability to leave the profession should they choose to do so. It is argued that the manner in which prostitution is currently criminalised in South Africa renders prostitutes even more invisible and limits their opportunities to move out of the profession. In particular, the unavoidable criminal record for prostitution related offences further stigmatises prostitutes and reduces their chances of finding alternative employment (Petzer, 2000).

COMPARATIVE JURISDICTIONS OF THE LAW ON PROSTITUTION

Different jurisdictions have addressed the issues of prostitution differently. It demonstrates the diversity of legislative responses that exist, and the different combinations of criminalisation and regulation that occur. The prevalence and occurrence of prostitution, as well as the policy and legislative responses of some jurisdictions may bear similarity to South Africa but comparative examples should always be approached with caution.

Prostitution laws in Sweden

Prostitution is not regarded as a social problem but rather as a symptom of the inequality between sexes. It means that a woman cannot consent to sell sexual services because she is said to be the victim of inequality. Sirkiä notes that both radical feminism and the traditions of a paternalistic welfare society were influential in the adoption of the approach in Sweden (Sirkiä, 2003). This puritan approach is thus opposed to free sex and the commercial sex industry. By making this a feminist question, judicial and social objections became unimportant.

The gist of the Swedish approach is that prostitution and its associated problems should be addressed at the root, rather than relying on piecemeal initiatives. It is therefore a holistic approach to the problems of prostitution and is regarded as a long-term project (Bindel and Kelly, 2004 par 2525). The government regards the role and function of the law to be not only that of detection and enforcement, but also of education and prevention.

The government places as much emphasis on raising awareness about the realities and consequences of prostitution as on enforcing the criminal law. The police and prosecutors must be educated on all aspects of the law which is considered vital for achieving effective enforcement (Bindel and Kelly, 2004).

In 2002 additional legislation was passed to bolster the original prostitution legislation. The Act Prohibiting Human Trafficking for the Purpose of Sexual Exploitation imposed criminal penalties for anyone trafficking in human beings for sexual purposes, drawing on the definition of trafficking in the UN Optional Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children of 2001. The legislation further strengthened the government's ability to pursue the network of persons that surround and support prostitution, such as the recruiters, the transporters, and the hosts.

The Act was amended to address problems as they become evident. In 2005 an amendment of the act was done to widen the scope of its application. The ban on purchasing sexual acts from children was strengthened. The Swedish government has also identified problems with the enforcement of the law and extensive funds were made available and police and prosecutors from the top ranks down to the officer on the beat received intensive training.

In July 2008, still emphasising the impact of prostitution on social equality, gender equality and the enjoyment of human rights, the Swedish Government adopted a further action plan for combating prostitution namely, higher standards and greater efficiency in the justice system. There is a need for effective and appropriate legislation for combating prostitution.

Prostitution laws in Netherlands

In October 2000 the Dutch government amended the Criminal Code to reflect the new Dutch policy that prostitution is a reality and will never disappear, causing government to take a realistic stance on the problem (Dutch Penal Code article 250a). It is no longer a crime to operate brothels in which adult prostitutes work of their own accord. The Dutch government is strongly opposed to forced prostitution and prostitution involving minors. Punishment for these forms of prostitution increased from four to six years imprisonment. A liberal approach was argued that prostitutes were no longer seen as victims and that women were entitled to control their own bodies and had the right to decide to sell sex. Voluntary prostitution was permitted and the operation of prostitution was regulated as businesses. Decentralisation to regulate prostitution was chosen as it is municipalities and local authorities that are actually faced with the matter of prostitution.

Local government developed systems to regulate brothels by prescribing conditions for licensing as well as the number and type of commercial sex based businesses by the municipality or local government. The

national government also issued guidelines and suggestions for community and regional levels and published them in the Handbook Local Prostitution Policy. The most important elements are:

- ◎ A contract of control with a set of agreements between local government, the police and the public prosecution on the correlation of administrative and punitive measures.
- ◎ Local government can organise a licensing system in order to regulate the prostitution sector on the basis of a model published by the Association of Dutch Municipalities.
- ◎ Specific guidelines were developed for the public prosecutors on how to proceed in cases of trafficking in persons and forced prostitution.
- ◎ A special guideline is written on how to deal with victims of trafficking in the legal procedures.
- ◎ A code of conduct for civil servants and policemen on how to behave in the prostitution milieu.
- ◎ Officials who are responsible for the issuing of licenses have access to criminal record in order to check the background of owners and managers of brothels.
- ◎ Prostitutes must identify themselves to the police to be protected by the law.

Mobility within the Netherlands and in neighbouring countries has increased as a direct result of the new policies and illegal prostitutes moved across the borders to Belgium and Luxembourg.

Prostitution laws in United Kingdom

The Sexual Offences Act of 2003 provides that it is an offence for a person to cause or incite prostitution or to control any of the activities of another person relating to such a person's behaviour, for the expectation of gain for himself or a third person. Section 51(2) of the Sexual Offences Act defines "prostitute" as: A person (A) who, on at least one occasion and whether or not compelled to do so, offers or provides sexual services to another person in return for payment or a promise of payment to A or a third person (Section 51(2)). Gain includes any financial advantage or the goodwill of a person. A person found guilty of these offences is, on summary conviction, liable to imprisonment for a term not exceeding 6 months or a fine not exceeding the statutory maximum or both; and on conviction on indictment, to imprisonment for a term not exceeding seven years.

In September 2007 the UK Government considers to prosecute clients of prostitution in a new effort to curb the demand for prostitution as Sweden did eight years ago. Sex trafficking was growing and the motivation was further to include large-scale programmes to name and shame men caught kerb crawling. Indoor-and outdoor prostitution could only be terminated by criminalising clients and send out the message that paying for sex is not acceptable.

In November 2008, media reports indicated that the UK Government intends to propose new laws that will make it illegal to pay for sex with women controlled for another person's gain such as pimps, traffickers or brothel owners. Ignorance will no longer be a defence and offenders will receive a criminal record and a large fine. In reaction to this proposal, the Metropolitan Police's Human Trafficking Unit responded that such laws could be unenforceable in view of the fact that it is difficult for the police to identify the prostitutes who are working against their will (Travis, 2008).

Prostitution laws in African countries

Adult prostitution is illegal under the Penal Code of Botswana. The Penal Code also prohibits living on earnings from prostitution, using any premises for prostitution, and maintaining brothels. Adult prostitution in Botswana is widely practiced. The possibility to legalise prostitution was discussed, but not decided (Sunday Standard, 2007).

Adult prostitution is not illegal in Nigeria, however, under section 225A of the Nigerian Criminal Code male persons who live of the earnings of prostitution or who persistently solicits in public places for immoral purposes, shall be liable to imprisonment for two years, and in the case of a second or subsequent conviction, shall be liable to caning. It is also an offence to keep or manage a brothel and a guilty party is liable to a fine or imprisonment (Nigerian Criminal Code).

Article 42 of the Criminal Code of Swaziland makes procuring girls and women for prostitution punishable by 5 years imprisonment or a fine of R1000 (Criminal Code of Swaziland).

Zambia has not legislation against prostitution but has laws that prohibit activities related to it. Under the Zambia Penal Code prostitution is referred to as a phenomenon with an economic dimension and certain aspects of it are penalised. It is illegal to solicit for clients, and to live off the earnings of a person who is

engaged in prostitution. It is also a punishable offence to detain a woman or a girl against her will and compel her to have sex with a man (Zambia Criminal Code).

Adult prostitution per se is not illegal under the Criminal Code of Ghana. Prostitution is defined by section 279 of the Criminal Code to include the offering by a person of his body commonly for acts of sex payment although there is no act of ordinary sexual connection. Brothel-keeping is an offence. In 2005 the Ghana Aids Commission Director-General proposed that commercial prostitution be legalised (Criminal Code of Ghana).

DIFFERENT LEGAL FRAMEWORKS FOR PROSTITUTION LAW

There are four different legislative models to address prostitution. They are:

- ⊙ Total criminalisation
- ⊙ Partial criminalisation
- ⊙ Non-criminalisation
- ⊙ Regulation

A major division between the models is between those that criminalise prostitution and those that do not.

Total criminalisation

The USA, Thailand and South Africa are examples of total criminalisation of prostitution. Criminalisation in South Africa is justified on moral grounds to prevent social ills such as child prostitution, trafficking in women and children, public health and other associated crimes. All aspects of prostitution are prohibited as criminal offences. These criminal provisions are usually enforced by police officials and other state law enforcement agencies that are authorised to apprehend and where appropriate arrest persons suspected of committing these offences. A person charged with or convicted of such a criminal offence will usually face punishment in the form of a fine or imprisonment, or both.

Total criminalisation penalises prostitution and all acts relating to prostitution. It may happen that the sanctions towards the prostitute and solicitor are stricter than those towards the role players.

Partial criminalization

In Sweden and the UK, prostitution is subject to partial criminalisation. The client of the prostitute is criminalised. The Swedish model focuses on reducing the demand for prostitution and the UK model emphasises the reduction of exploitation by third parties.

Non – criminalisation model

This model removes laws that criminalise adult prostitution and related activities. The supervision of prostitutes, other role players and business establishments typically takes place through general legislation on labour, occupational, health and safety and human rights.

A characteristic of non-criminalisation is self-regulation, namely that any special regulation of the prostitution industry, concerning, for example, zoning, rental property and professional associations, is done by involving prostitutes and other stakeholders such as brothel managers, clients, communities and other employed by the industry. Such self-regulation may entail the establishment of a monitoring institution and a code of conduct setting out standards to be regulated by that institution. The legal position of prostitutes in New Zealand is an example of the non-criminalisation model.

The regulation model

In the Netherlands and Germany prostitution is subject to regulation. Regulations refer to the removal of general criminal sanctions against prostitution in combination with measures aimed at state regulation and control of the industry.

The control measures in a regulated system are based on the prevailing social norms and conditions of the particular jurisdiction. These measures will typically prescribe health checks, registration of prostitutes, licensing of brothels and sometimes the zoning of certain areas in which prostitution is allowed (Levick, 1998). In many instances the specifics of the policy concerning the regulation are left to the state or municipal legislatures.

The sanctions for non-compliance with this regulatory system are usually of a criminal nature, with enforcement by the police or similar state law enforcement agencies. This means that criminalisation remains an element of the regulation model.

EVALUATION OF THE MODELS OF TOTAL CRIMINALISATION AND PARTIAL CRIMINALISATION

Under these two criminalisation models some or all aspects of prostitution are prohibited as criminal offences. These criminal provisions are usually enforced by police officials and other state law enforcement agencies that are authorised to apprehend and where appropriate, arrest persons suspected of committing these offences. Criminalisation of prostitution is therefore generally favoured by two categories: those opposed to prostitution on moral and religious grounds and those opposed to prostitution on human rights. Criminalisation of prostitution is a violation of prostitutes' constitutional rights and will not succeed in putting an end to it. According to both groups prostitution depends upon the willing or unwilling exploitation of a certain group and class of persons for another's personal gain and the proposed solution is to criminalised prostitution or certain aspects thereof. The underlying theory is that prostitution will be eliminated by strict legal measures and dedicated consistent enforcement of the applicable prohibiting legislation.

The inconsistent enforcement of legislation is also a problem. For example, in the United Kingdom there does not seem to be a national enforcement policy against the illegal prostitution related activities. The resulting lack of consistent enforcement means that neither the prostitute's rights organisations nor the residents' associations are satisfied with the way in which prostitution is controlled or regulated (Hindle and Barnett, 2003).

It is also argued that prostitution occurs with multiple power relations of domination, degradation and subservience: men over women, older over younger, citizen over alien, moneyed over impoverished, violent over victimized, connected over isolated, housed over homeless, tolerated and respected over despised. The criminalisation of prostitution merely legitimises these scenarios of domination.

EVALUATION OF THE NON-CRIMINALISATION MODEL

Non-criminalisation refers to the model of removing laws that criminalise adult prostitution and related activities. The supervision of prostitutes, other role players and business establishments typically takes place through general-legislation on labour, occupational, health and safety and human rights.

The advantage of the non-criminalisation model is that:

- ⊙ Fair labour practices, as prostitution will then be seen as a form of work.
- ⊙ Brothels will be run as normal businesses under general commercial law.
- ⊙ Recognition of prostitution as a legitimate form of work.
- ⊙ No stigma will be attached to prostitution.
- ⊙ Self-regulation by prostitutes setting of their own standards and rules.
- ⊙ Better access of health facilities
- ⊙ No person's human rights should be violated on the basis of trade, occupation, work, calling or profession.

Prostitution will be treated as a service industry like any other, in which people exchange skills for money or other reward, and that those people have the right to do so under the full protection of the law. The non-criminalisation approach of allowing prostitution with only minimal self-regulation accepts the socio-economic imperatives of prostitution and seeks to address the human rights of those involved in prostitution. Criminalisation of prostitutes infringes on, *inter alia* rights to privacy, freedom of trade and security of the person, dignity, privacy and equality before the law.

Prostitution falls within the private sphere of human existence and any state interference into private lives, particularly the economic and personal rights, should be kept to a minimum. In that sense non-

criminalisation allows prostitutes to go into business for themselves. No evidence is also available of any law that succeeded in stopping prostitution.

EVALUATION OF REGULATION

An argument is that instead of regulating prostitution, attention should be given to exit programmes to ensure that prostitutes are equipped to earn in a more socially acceptable and dignified way.

The advantages of regulating prostitutes include the keeping of a register of legal prostitutes; the ability to refer and coordinate; regulating working conditions to the advantage of the prostitute and client; providing prostitutes a voice and the possibility of union membership.

Specific measures should be enacted that includes regular health tests and liability for tax and conditional licensing. Strict licensing conditions regarding employment and employment records and pre-employment screening for criminal conduct are needed. Fees or income received by the management of prostitution-related businesses be regulated to ensure minimum wages for prostitutes.

CONCLUSION

Criminalisation of prostitution involves the use of criminal sanctions to control prostitution and related activities with the view ultimately to eradicate it. The underlying assumption is that prostitution is a social evil which cannot be countenanced in any other way. It is difficult whether or not it is possible, or appropriate, to attempt to eradicate prostitution through positive legislation. South Africa must accept prostitution as a reality that will never disappear. Hence it must seek to regulate prostitution to protect prostitutes from commercial exploitation, prevent involuntary prostitution, and advance the rights of those who work as prostitutes and eliminate criminal involvement in the prostitution industry. Prostitution is a contested issue in which societal opinions are often polarized and therefore there is a need for the law to reform.

South Africa will have to find a model mostly suited for its own unique circumstances. Under regulation, attempts are made to regulate prostitutes and prostitution-related businesses. The assumption is that prostitutes serve the sexual needs of others and by regulating prostitution the worst side effects can be controlled. The success of the regulation model may be compromised where government prescribes regulations without consultation and regard to what is needed by prostitutes themselves.

In a regulated system prostitution-businesses must be licensed and must be done on Local government level. They must also register with the authorities in order to ensure that they practice their trade within the prescribed legal framework. Their registration could be linked to other control; measures such as mandatory health testing to prevent the spreading of HIV infection through prostitution.

Outdoor prostitution or public prostitution may occur on streets, public toilets or public parks. Therefore outdoor prostitution must be illegal. A regulated system must authorise local communities to decide whether or not to allow prostitution in a particular area.

Regulation represents a compromise between the prostitution industry and the interest of social communities. A regulated system typically authorizes local communities to decide whether or not to allow prostitution in a particular area. Where local government structures are given broad discretionary powers to decide whether or not to allow prostitution-related businesses, the number of legal brothels may be sharply limited as communities seek to limit the existence of prostitution in their areas.

In conclusion, prostitution is one of the oldest forms of employment and is here to stay. The reality is that poverty cannot be eradicated overnight, leaving very real consequences for those affected by it. South Africa's international obligations is to realize various rights such as dignity, security of the person, equality, equal access to the law and access to health care as well as to provide effective remedies for violations of rights and must inform the decisions of this legislative. Government should find an amicable way of joining hands with this "industry" to find a lasting and legally sustainable solution to this age old problem.

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SCIENTIFIC RESEARCH IN TOURISM: REVIEW OF THE LITERATURE FROM 2005 TO 2009.

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ABSTRACT

This article presents the results of a review of the literature on tourism from 2005 to 2009. Precisely, 1.648 articles were reviewed and classified into eight macro-lines of research. The content of the Strategy macro-line was analyzed in greater depth, as it was considered to be an “umbrella” for the other dimensions pertinent to tourism. The literature thus provided significant elements confirming the appropriateness of the strategic network perspective for research on sustainable tourism management, and it also helped identify the actors that are most critical for leading the development of a tourist destination.

INTRODUCTION

Over the past six decades, tourism has been one of the world economy's fastest growing sectors. This trend was, however, interrupted in 2009 due to the financial crisis and the Influenza A/H1N1 epidemic. For the first time in many years, the numbers showed a decline in the sector's growth, with international disembarkations expected to have fallen by 6% in relation to 2008 (UNWTO, 2009).

Although this prospect in no way reduces the economic importance of a sector that generates revenues of around US\$ 900 billion a year and accounts for approximately 7% of global direct and indirect jobs (UNWTO, 2009), the growing social and environmental pressures that have come to the fore during the past decade, have increased the complexity of the challenges faced by the tourism industry's public and private managers.

In the academic sphere, complexity constitutes a powerful stimulus for investigation. The area's researchers have been seeking to develop a more robust theoretical foundation for tourism in order to firmly establish it as an academic discipline. For Cooper, Fletcher, Wanhill, Gilbert and Shepherd (2001), tourism as a field of study still requires a more solid conceptual basis, the lack of which may be attributed to the fact that academic research in the area mirrors the industry's fragmentation and absence of defined structures.

In order to, at least partly, fill the gap identified above, a literature review was undertaken of the articles published on tourism over the past five years. This article presents the most important results of this investigation, the aim of which was to (1) identify and classify macro-lines of research in the tourism area; (2) present the main trends revealed; and (3) perform an in-depth analysis of academic output in the tourism area that focuses on strategic issues using a network approach.

Tourism, despite being one of the world economy's most important sectors, has rarely been studied from a strategic network viewpoint (Donaire, Silva and Gaspar, 2009). A network approach to the subject is justified by the industry's notoriously multi-sectoral nature, with its series of distinct yet interdependent actors and activities (Tremblay, 1998; Cooper *et al.*, 2001; Barbosa and Zamot, 2004). Thus, the objective of this literature review was not solely to contribute to a greater structuring of scientific research in the field of tourism, but also to the development of the strategy literature in this area.

This article is divided into four sections, including this introduction. The second part explains the methodology adopted for the literature review. The third part presents the review's main results and the fourth

part concludes this study and provides suggestions for future research.

METHODOLOGY

The literature review followed the method proposed by Villas, Macedo-Soares and Russo (2008). The authors recommend initiating bibliographical investigations by way of an analysis of scientific journal rankings. Briefly, the method involves three key stages: (1) a survey of the initial sources to be analyzed, based on scientific publication rankings; (2) selection and analysis of articles, listing authors and keywords; (3) selection of new articles based on an analysis of the previously selected documents' bibliographical references.

Increasing the number of steps in relation to the method proposed by Villas, Macedo-Soares and Russo (2008), the present literature review used a five-stage procedure detailed below.

Selection of Periodicals

Two rankings of academic periodicals were adopted for the selection of scientific magazines and journals: the *Institute for Scientific Information* (ISI) system and the so-called "Qualis" ranking system of the Brazilian research funding body, CAPES. The review also included journals that are not classified by the ISI and Qualis systems, but which are often cited in the bibliographical references of the articles analyzed.

The research selected 139 journals, as well as six proceedings of congresses that were considered to be an important source regarding the area's research in progress, totaling 145 publications. However, when it was found that articles published in conference proceedings had also been published in scientific journals, they were removed from the literature review to avoid double counting in its database.

2.2 Identification of Articles

Having decided which scientific journals to include, the following step was to select articles that were pertinent to a literature review in the field of tourism. Each selected publication was investigated in virtual databases available through the Internet. The research used the keyword "tourism" in the search engines and adopted a "2005-2009" time frame.

1,648 articles were chosen from 56 different journals. A data base listing the articles was created in order to better structure the analysis of the material under investigation.

Classification of Articles

In the data base, each article was classified according to title, author, name of journal, year of publication and related key words. With a view to carrying out an analysis of these articles, it was decided to further classify them according to macro-lines of research using keywords, in accordance with the method proposed by Villas, Macedo-Soares and Russo (2008). The following criteria were adopted for classification purposes:

- 1) After reading each article's abstract, a single word that best represented it was chosen from the complete list of the article's keywords;
- 2) The articles that did not present keywords (a minority) were classified by reading their abstracts;
- 3) The keywords selected were grouped according to the criterion of conceptual proximity, thus establishing thematic axes.

Data Bank Analysis

The data bank was analyzed through the use of the simple univariate statistical tool of frequency analysis, identifying the main macro research lines in the tourism area, as well as the main publication trends where academic literature was concerned.

In-Depth Analysis

It is important to recall that this article is limited to the results of the in-depth analysis of articles pertinent to the *Strategy* macro-line of research that adopted a network perspective.

The research decided to focus on the *Strategy* macro-line because it was considered to be an “umbrella” that encompasses all the other macro-lines of research identified. Indeed, well formulated strategies will provide a basis for addressing most of the tourism industry’s critical issues. In the scope of our research, it was thus contended that the *Strategy* macro-line of research could provide support for all other dimensions of tourism.

The reason for choosing a network perspective was related to the characteristics of the tourism industry, which depends for its existence on the articulation of a network of actors and businesses for supplying the tourist product.

RESULTS

Macro-lines of Research

The adoption of the method explained in the previous section resulted in eight macro-lines of research, as shown in Figure 1.

Figure 1:

Macro-Lines of Research in Tourism and Related Keywords



Source: prepared by the authors

The macro-line of research named *Strategy* was identified from the group of words related to the concept of competitiveness. The *Management* macro-line resulted from grouping the words that referred to the management of tourist firms and institutions. *Marketing* was defined as one of the macro-lines to classify research dealing with issues related to consumer (tourist) behavior and destination branding. In the case of the *Development* macro-line, the grouped keywords were drawn from articles that focused on tourism’s impact on the development of host localities. *Sustainability* was the macro-line of research that congregated the greatest number of articles exploring themes related to the environment and sustainable development. The *Public Policies* line of research included the articles in which keywords referred to issues related to public sector policies towards tourism. The *Niche* macro-line was established due to the identification of a large number of articles that dealt with specific tourism segments such as religion and adventure. The *Research* macro-line emerged from the keywords related to research methodologies and academic research methods in the tourism field.

It should be noted that some of the articles’ content may overlap in terms of the macro-lines of research identified, given that some articles employ more than one conceptual approach. For example, some articles classified in *Marketing* deal with the issue of brand image from a strategic viewpoint and articles can be found in the *Sustainability* macro-line of research that examine issues related to the development of host communities or mention aspects of public policy. These examples confirm tourism’s status as a multidisciplinary area of study. However, for the purposes of the literature review, it was decided to classify each article under only one macro-

line of research. Thus, the classification of articles was based on the choice of a single keyword, in accordance with the criteria mentioned above.

Data Bank Results

Based on the analysis of the variables listed in the data bank that were generated from the articles' survey, it was possible to identify the first trends of tourism research undertaken over the past five years. Before presenting them, it should be observed that 16 journals concentrated 95% of the articles published in the tourism field (Table 1). Moreover, only a very small number of articles on tourism were published in traditional scientific administration journals. This may be due to the fact that there are a large number of publications specialized in tourism.

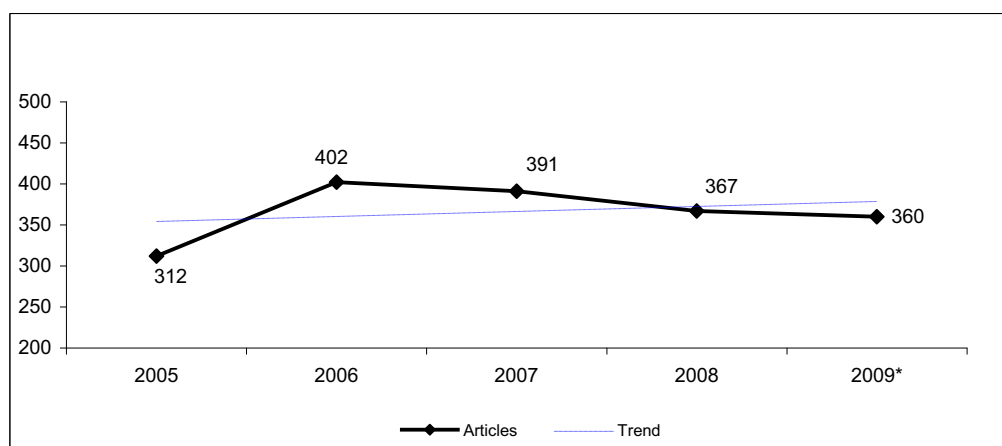
Table 1 - List of the 16 periodicals that published 95% of the articles surveyed.

Journal	RANKING	BRAZIL/INT.	TOUR./BUS.	QTY PAPERS	%
Tourism Management	ISI	INTERNATIONAL	TOURISM	460	28%
Journal of Travel Research	ISI	INTERNATIONAL	TOURISM	219	13%
Annals of Tourism Research	B1	INTERNATIONAL	TOURISM	215	13%
Journal of Vacation Marketing	ISI	INTERNATIONAL	TOURISM	98	6%
Turismo. Visão e Ação (Itajai)	B3	BRAZIL	TOURISM	93	6%
Estudios y Perspectivas en Turismo	B2	INTERNATIONAL	TOURISM	80	5%
Revista acadêmica Observatório de Inovação do Turismo	B4	BRAZIL	TOURISM	65	4%
Caderno Virtual do Turismo	B4	BRAZIL	TOURISM	61	4%
Tourism Studies	ISI	INTERNATIONAL	TOURISM	55	3%
Revista Global Tourism	B5	BRAZIL	TOURISM	53	3%
International Journal of Contemporary Hospitality Management	A2	INTERNATIONAL	TOURISM	35	2%
EnAnpad Congress	N/A	BRAZIL	BUSINESS	34	2%
Revista Eletrônica de Turismo Cultural	B5	BRAZIL	TOURISM	33	2%
Patrimônio. Lazer & Turismo (UNISANTOS)	B5	BRAZIL	TOURISM	31	2%
Journal of Business Research	ISI	INTERNATIONAL	BUSINESS	18	1%
Revista Científica Eletrônica de Turismo	B5	BRAZIL	TOURISM	17	1%
				1.567	95%

Source: prepared by the authors

Although the latter could be considered an indication that tourism as a scientific field is expanding, on the basis of the yearly distribution of articles published it was not possible to affirm that this was the case. Indeed, the analysis of the articles on tourism published per year (Graph 1) showed a relatively stable trend in the number published during the period surveyed.

Graph 1 - Number of Articles-Year



* The examination of the articles in this bibliographical survey ended in July 2009, with 176 articles analyzed during this year. The number presented in the graph is a projection.

The analysis shows that the *Marketing* research line possessed the greatest number of articles published (Table 2). The *Strategy* line of research occupied the second position but with less than half the articles classified. It is probable that the large number of articles concentrated in these two lines of research reflect a concern in tourism studies with how to assure touristic demand over time, as this is strategic for the development of tourist destinations and has implications for their marketing.

Table 2 - Number of Articles Per Macro-Line of Research

	Thematic Group	2005	2006	2007	2008	2009	Total	% Total
1	Marketing	86	136	147	128	72	569	34,5%
2	Strategy	50	54	57	50	23	234	14,2%
3	Niche	46	51	61	48	23	229	13,9%
4	Development	43	52	43	46	18	202	12,3%
5	Sustainability	32	38	31	37	7	145	8,8%
6	Management	19	40	26	32	18	135	8,2%
7	Research	31	15	17	19	11	93	5,6%
8	Public Policies	5	16	9	7	4	41	2,5%
	Total	312	402	391	367	176	1648	100,0%

Source: prepared by the authors

The *Marketing* and *Strategy* research lines were followed by the *Niche* macro-line, indicating that tourism is suited to segmented research. The *Development* and *Sustainability* lines of research revealed a growing concern with the issue of how to manage tourism's growth faced with the need to satisfy social and environmental demands. The line classified as *Research* suggested that methodological questions pertinent to tourism research were as yet not a priority. This appeared also to be the case where *Public Policies* were concerned, as only 2,5% of the articles focused on this topic.

In-Depth Analysis Results: Strategic Approach & Network Perspective in Tourism

Tremblay (1998) sees the cooperation network perspective as the new organizational paradigm for tourism management. His view is based on an analysis of the characteristics of the tourism industry, which is considered a dynamic system constituted by heterogeneous, interdependent and mostly complimentary activities.

Given tourism's complexity, reflected in the countless gamut of relationships generated by its various stakeholders, we argue here that a linear structure analysis model such as a value chain, for example, can hardly provide the necessary inputs to fully understand the tourist industry. This idea is corroborated by Garrido (2001) when she affirms that the production chain model, with its industrial sector assembly line characteristics, could not be further from the reality of tourism.

Despite the importance attributed by certain authors to the network perspective, the latter approach is still largely ignored by researchers. The literature review at issue here identified only 13 articles which adopted this approach (0.8% of the 1.648 articles on tourism analyzed).

The lack of publications pertinent to the network perspective led us to undertake an in-depth analysis of the content of those articles that adopted this perspective. This analysis was carried out according to their contributions regarding (1) their confirmation of the appropriateness of a network perspective for tourism research, and (2) the identification of the tourism macro-network's main actors.

Appropriateness of the Network Perspective for Tourism

March and Wilkinson (2009) contend that, in tourism, value is created for customers (tourists) through a complex network of interactions between interdependent actors. Scott, Cooper and Baggio (2008) complement this idea by defining that a tourist destination is composed of a group of independent suppliers who are articulated spontaneously to deliver the tourist product. In this context, the tourist destination's products are produced by adding different elements at the moment of their consumption in order to provide the customer's total experience (Wang and Krakover, 2008).

In sharp contrast to manufacturing industry, which delivers finished products to markets, tourism distributes customers to places where services are produced (Grangsjo and Gummerson, 2006). For Grangsjo and Gummerson (2006), this basic prerequisite affects a destination's marketing strategies and competitor network, as the services are partly delivered in an interaction with customers. This characteristic of tourism makes it necessary to develop cooperative relations between firms and organizations to join resources and develop a mutual commitment, with the common objective of attracting more visitors to the destination (Wang and

Krakover, 2008). In a similar vein, Scott *et al.* (2008) argue that tourism, more than other economic sectors, depends on the formal and informal development of collaborative relations, partnerships and networks.

The motivations behind collaborative relationships in tourism can vary substantially and their objectives can be economic, strategic and social or learning related (Wang and Fesenmaier, 2007). When these relationships form a cooperative network, firms obtain competitive advantages through sharing knowledge, resources, markets and technologies. (Novelli, Schimitz and Spencer, 2006; Scott *et al.*, 2008; Timur and Getz, 2008; Guimarães *et al.*, 2008; March and Wilkinson, 2009). Another important role of these networks is to minimize transaction costs and exploit scale and scope economies, sharing risks and providing access to complementary resources (Erkus-Ozturk, 2009).

Grangsjö and Gummerson (2006) similarly argue that the creation of a network of local competitors may contribute to improving each firm's individual situation when the collective actions undertaken lead to an improvement in the destination's competitive position in the market. Following this approach, Wang and Krakover (2009) affirm that three different types of relationships co-exist between tourism's stakeholders: cooperation, competition and co-opetition – a concept originally proposed by Brandenburger and Nalebuff in 1996.

Cooperation, according to Wang and Krakover (2009), is important to assure the most efficient use of a destination's limited resources. Competition, on the other hand, is important to motivate each separate business. Co-opetition may constitute an efficient way of dealing with both the cooperation and competition necessary for the development of tourist sector business. Thus the creation of a network is facilitated when local competitors build their social capital through trust and commitment and observe certain basic principles, such as acting in accordance with a collectively drawn up code of conduct (Grangsjö and Gummerson, 2006).

A cooperation network's success may lead firms to develop more formal relationships such as strategic alliances in order to share or co-develop products and services (Novelli *et al.*, 2006). Among the strategic alliances that are most pertinent to tourism, Pansiri (2008) highlights joint ventures, asset sharing, brand, franchise and license sharing, marketing and distribution agreements, joint sales and distribution, information and technology sharing, joint purchasing agreements and equipment sharing. For Novelli *et al.* (2006), strategic alliances generate an improvement in service quality, increase the visibility of destinations and open up opportunities for cross marketing activities with other groups of firms.

Wang and Krakover (2009) contend that the fragmentation and complexity of the tourism industry make a collaborative approach for this sector an imperative. Scott *et al.* (2008) also argue that the analysis of tourism's relationship network structures reveals important information regarding the competitiveness of tourist destinations, by providing significant insights that contribute to a destination's communication, planning and decision-making process. This argument is echoed by Shih (2006:1038) when he declares that "the analysis of networks is an appropriate tool for investigating the structural characteristics of a tourist destination". Moreover, Timur and Getz (2008) defend the use of a network perspective in the tourism industry, recognizing that a tourist destination is a system that consists of relations that can influence the opportunities, restrictions, behavior and values of the actors involved in it.

The views of the authors presented in this section strongly suggest that the network perspective is particularly appropriate for conducting research in a multidisciplinary sector such as tourism. By enabling the analysis of not only its structure but also its interconnections, this perspective contributes to a deeper understanding of the sector (Scott *et al.*, 2008). Indeed, it can reveal relational opportunities and threats, as well as shed new light on a destination's strengths and weaknesses. The gaining of new insights that are pertinent to tourism's network of relationships can also help increase the effectiveness of the sector's actors/firms in terms of contributing to the sustainable development of tourist destinations.

Main Actors of the Tourism Macro-Network

The network perspective has been used in tourism research to identify the network's main stakeholders, examine the interactions between them or the function of the network as a whole (Timur and Getz, 2008). Following the first line of research identified by Timur and Getz (2008), this article sought, amongst other objectives, to confirm which are the tourism network's most important actors, according to the literature review undertaken.

The tourism network's main actors are those identified as occupying a more central position in the group of touristic firms and organizations. A high level of centrality in the network enables the actors to manage information flows and influence other actors, thus endowing them with a strategic advantage (Timur and Getz,

2008). Moreover, in the light of the concepts of stakeholder theory, Timur and Getz (2008) show that the identification of actors that are critical to tourism's development is related to the analysis of two fundamental attributes: the power and legitimacy exercised by them in relation to other tourism network actors.

According to Scott *et al.* (2008), the tourism network's main actors are those with a wider interest in the issues affecting a particular destination. They are the largest firms with revenues from various sectors of the market and are involved in more than one community of interest in the destination, such as big hotels and airlines.

The following occupy an especially important place among the tourism network's main actors: Destination Management Organizations (DMOs, such as the Convention & Visitors Offices), hotels, tourist transportation firms, travel agencies, government agencies, tourist operators and event organizers, as well as tourist attractions (Timur and Getz, 2008; Donaire *et al.*, 2009; March and Wilkinson, 2009). The special place attributed to several of these actors is partly confirmed by the data presented in the World Tourism Organization's annual report (UNWTO, 2009) indicating that tourists' expenditures on lodging, food and drink, local transportation/transport, entertainment and purchases are the most important sources of revenue for the economy and development of many tourist destinations.

It is important to highlight the tourism network's main actors because of the responsibility attributed to these agents. These include the communication of the destination's development planning, the mediation to facilitate collaboration between stakeholders, the growing need to create awareness among network members regarding socio-environmental issues and the coordination of efforts to attain the tourist industry's collective targets (Timur and Getz, 2008). Thus, in order to understand how the tourism network as a whole functions, it appears to be fundamental to investigate the relationship network from each actor's viewpoint, analyzing how each of them manages it.

With respect to the latter, it is noteworthy that the research identified only one article whose proposal was to analyze the relationship network of each tourist system actor. Silva and Teixeira's (2007) study analyzes the case of a hotel in the city of Curitiba in the south of Brazil. As it is a unique case study of an exploratory nature, it is not possible to generalize its results. However the finding regarding the fact that the managers of this particular hotel did not possess a strategic view of inter-organizational relationships indicated a lack of awareness regarding the advantages they could derive from this perspective.

CONCLUSIONS

In summary, the study at issue in this article was motivated by the identification of a lack of solid theoretical bases in academic research on tourism (Cooper *et al.*, 2001). Its objective was to at least partly fill this gap by carrying out a literature review of scientific articles on tourism published between 2005 and 2009. Its aims were three-fold: (1) to identify and classify macro-lines of research in the field of tourism; (2) present the main trends encountered; (3) undertake an in-depth analysis of the academic production on tourism focused on strategic issues with a network approach.

As also already mentioned, in accordance with the methodology adopted, 1,648 articles from 56 different scientific journals were examined, and based on the grouping of their keywords eight macro-lines of research in tourism were identified: *Marketing, Strategy, Niche, Development, Sustainability, Management, Research and Public Policies*.

In keeping with the contention that the *Strategy* macro-line of research was an "umbrella" for the other dimensions of tourism, the research undertook an in-depth analysis of the articles classified in this macro-line. Due to limitations of time and space, priority was given to articles which adopted a network perspective. This choice was justified by the fact that the tourism sector's very existence depends on the articulation of a network of actors and businesses aimed at supplying the tourist product. These articles' content was analyzed in order to assess the contribution of the network perspective in tourism and identify the tourism network's main actors.

In terms of achieving its objectives, the literature review provided significant elements confirming the appropriateness of a network perspective for research in the tourism area, namely the fact that this perspective enables a deeper understanding of this sector by offering a framework for an analysis of its structure and interconnections. By the same token, it suggested that the insights gleaned from this perspective could contribute to a more effective performance on the part of this sector's actors/firms, in terms of leveraging tourist destination's sustainable development.

However, on the whole, the literature review confirmed that there was a dearth of studies on the advantages that tourism sector managers could obtain by using a strategic network perspective.

We thus recommend further investigations in the strategy macro line of research from this perspective, for example, on how each actor / stakeholder in the network can add value to effective tourism destination management oriented towards sustainable socio-economic development.

We also suggest that in-depth analyses be conducted of the literature pertinent to the other relevant macro-lines of tourism research identified in our study, considering the strategy macro-line as an umbrella for the other lines, with a view to deepening the understanding of this increasingly important industry within a systemic strategic network perspective.

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THE CHALLENGE OF EMERGING E-BOOKS TO TRADITIONAL PRINTED BOOKS--A PRELIMINARY STUDY

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ABSTRACT

This study, through an experimental and empirical survey to explore the readers' different views between printed books vs e-books. With only a small sample, the study finds electronic books have significant advantages over the traditional printed books. The advantages can also been seen in electronic newspapers and magazines, particularly many publishers offer free access to their websites, so the readers can easily and freely read the articles, mostly from their computers, rather than from special electronic reading gadgets, as those usable gadgets have only been introduced in the recent few years.. Some of the respondents expressed that they favor using their computers to read books, simply speaking why have to buy a special electronic gadget for ebooks. Although ebook downloading is growing rapidly, it, in some ways, still lacks some of the advantages printed books, e.g. they do not need to the concern of copyright. The findings of this preliminary study indicate that it may take some time before consumers will substantially change their reading behavior from the traditional printed books.

INTRODUCTION

In the past few years, a growing number of book readers have turned to purchase electronic books rather than printed books, with the help of electronic readers, e.g. Amazon's Kindles, Sony's eReaders, Barnes and Noble's Nook, the hot Apple's iPad, and HP'Slates. Apple's iPad hit the market on April 3, 2010 with 300,000 sold in the first day, and was expected to reach 5 million in twelve months [Wortham, 2010]. Electronic book readers have enabled book readers an alternative way to read books that provides them with lower cost, and more convenience to read, as well as making them easier to carry around. Book publishers and retailers have found an option to reach their customers and market in a hope to improve their bottom lines in this very competitive publishing world. The electronic book market is far smaller than the traditional printed book market; however, the growth rate is phenomenal [Rich, 2010].

The emergence of e-books is challenging the traditional way of publishing. However, the academic research is still quite limited to a large extent. This study, in an empirical experiment setting, examines from the book readers' points of views and their preferences, in order to provide a better understanding of this e-publishing market: what consumers prefer and how they make purchasing decisions. However, we focus mainly on the e-books and e-publishing related issues, and will study the e-readers in the future research.

REVIEW OF LITERATURE

There are no precise figures of how many eReaders were sold. At Amazon, the revenues from Kindles and e-books increased from 0.3% in 2008 to an estimate of 2.6% in 2010. These estimates provide the growth rate of Kindles and e-books; they outpaced Amazon's revenue growth rates. According to Jeff Bezos, Amazon's CEO, all eReaders sales would reach 7 million units in 2010, up from his original prediction of 6 million, excluding iPads sales. Table 1 presents estimates of e-book readers and e-book sales at Amazon [MacMillan, 2010].

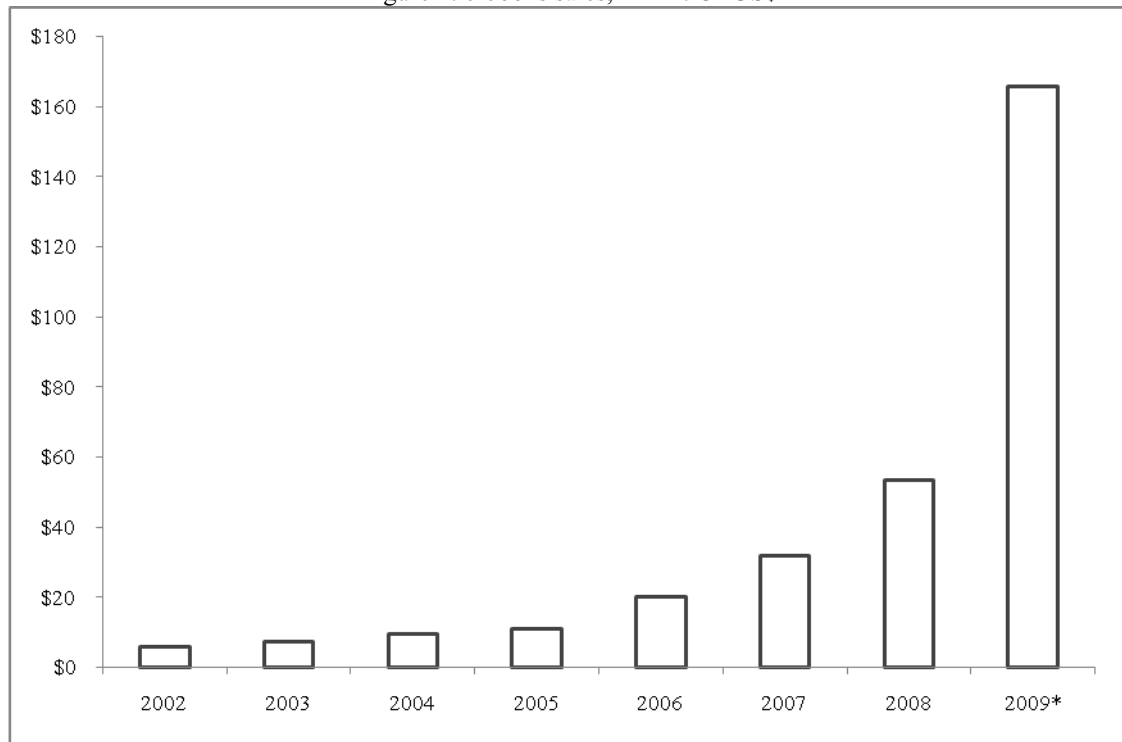
Table 1. Amazon's Kindles and e-books, revenues and growth

	2008	2009	2010e
Kindle units sold	189,000	467,000	2,208,000
Kindles and e-books yearly revenue	\$60,362,820	\$195,538,305	\$740,786,205
Kindles and e-books as % of Amazon revenue	0.3%	0.8%	2.6%
Amazon's revenue changes, year to year		22.5%	18.3%
Kindles and e-books revenue changes, yr to yr		164.3%	220.1%

Source: <http://www.techcrunch.com/2008/08/01/we-know-how-many-kindles-amazon-has-sold-240000/>

Amazon's information provides a glimpse of the electronic book market, the International Digital Publishing Forum (IDPF) provides more detailed information about e-publishing. Figure 1 presents the e-publishing sales from 2002 to 2009 [Source: http://www.opene-book.org/doc_library/industrystats.htm].

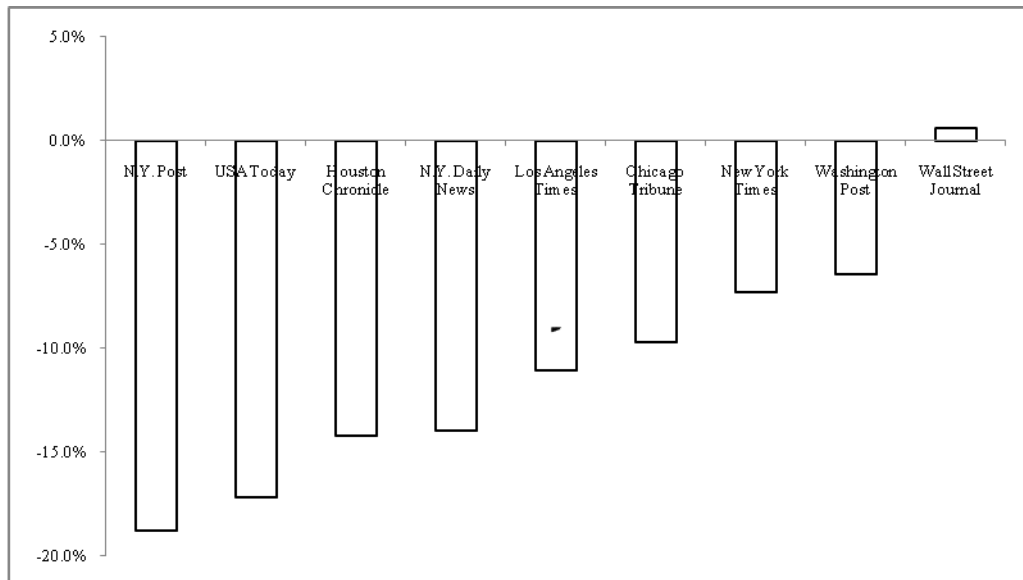
Figure 1. e-books sales, in mil. Of US\$



2009's figure is an estimate which excludes e-books purchased by iPad users.

While the revenues in e-publishing is growing rapidly, the total amount is still far below the total of printed publications. However, some of the printed publishing, i.e. newspapers, have experienced a sharp decline recently. Figure 2 documents the decline during April-September 2009 of some major newspapers in the U.S. [Source: Audit Bureau of Circulations; Ovide, 2009; Lewin, 2009; Trachtenberg, 2009; Vance, 2009].

Figure 2. Circulations decline of some major newspapers in the U.S. April-September 2009



Contrary to traditional printed publishing, the e-publishing market needs both electronic gadgets and electronic books. As far as the selection of electronic gadgets, consumers have quite a number to choose from tiny gadgets, such as iTunes, Blackberry, iPod touch, and iPhones, to specially manufactured e-book readers, i.e. Amazon's Kindles, Sony's eReaders, Apple's iPad, Barnes and Noble's Nooks, etc, to generic netbooks and laptops, even desktop computers. While for the e-books, there is no universal standard, just like with printed books which have a variety of type settings. Many publishers are concerned about what gadgets will eventually become dominant, since it will have profound impacts if they select wrong formats. Some developers believe that there is a limit to people's appetite for new digital media. Apple's iPad uses the same operations as iPod touch, iTunes, and iPhones. iPhones alone sold 42,482,000 in the U.S. from its introduction in June 2007 to March 31, 2010 [Sources: http://en.wikipedia.org/wiki/File:IPhone_sales_per_quarter_simple.svg; Ovide, and Adams, 2010; Pogus, 2010; Wayner, 2009; Clark, 2009].

To make the situation more complicated, often electronic gadget makers, publishers, and book retailers constantly disagree with one another so it is difficult to develop new business models for profit/cost sharing. Dominant players often pressure others to go along with their terms. Amazon has tussled with publishers recently over e-book prices, but a new pricing model that is emerging could improve Amazon's profit margin on e-books for any e-readers. Publishers will set prices for many e-books, with retailers such as Amazon and Apple taking 30% of the revenue. This guarantees a profit on every sale. Amazon's previous policy of discounting new e-book best sellers at \$9.99 typically resulted in losses, since it paid more than \$9.99 for those books. What's more, Amazon is years ahead of Apple in building relations with the publishing industry, being one of the biggest print-book retailers in the nation. Amazon now offers more than 450,000 e-books, and has access to more than 1.8 million free out-of-copyright titles. Apple has said it will start with 60,000 titles from five of the largest publishing houses [Kane, 2010; Trachtenberg, 2010].

Paper books are in the low technology. For many people, the problem with electronic books is that they come loaded with just many restrictions. Digital books bought today from Amazon.com, for example, can be read only on Amazon's Kindle device or its iPhone software. Some restrictions on the use of e-books are likely to remain a fact of life. Because of this, some potential e-book customers shy away from jumping on the band wagons of e-book. On the other hand, there is no single technology standard for e-books, while the early comers like Amazon tend to dominate in the nascent market [Stone, 2009].

Barnes & Noble Inc. has stepped onto the nascent electronic-book battleground with Amazon.com Inc. and Sony Corp., saying it would launch its own e-bookstore with bestsellers priced at \$9.99, in line with its rivals. It would offer more than 700,000 titles, including more than 500,000 public domain books from Google Inc., and that it expects to be able to offer more than one million titles by July 2010. Book formats supported by the new Barnes & Noble e-bookstore include those that can be viewed on Apple Inc.'s iPhone and iPod Touch,

BlackBerry smartphones and most Windows and Mac computers. However, titles bought through Barnes & Noble's e-bookstore are not compatible with Sony's Reader or Amazon.com's Kindle e-book reader, the two dominant e-readers in the U.S. market [Trachtenberg, and Fowler, 2009; Bilton, 2010; Rich, 2010; Rich and Stone, 2010; Trachtenberg, and Fowler, 2010].

Both book resellers and publishers want to provide their customers with an alternative of e-books. In addition to bring about new titles in an electronic format, they republish old titles by big-name authors. These approaches further enable the demand growth of e-books [Trachtenberg, and Kane, 2010; Rich, 2009].

METHODOLOGY

With the focal questions in mind, this research studied the views of consumers with regards to how they view e-books as compared to the traditional printed books. A survey was developed to investigate the issues related to the subject of this study, in the consumer preferences on products and their quality, price and promotion, deliveries. The following variables were based on literature reviews.

Variable Selection

The following variables affect how and where consumers make their purchase decisions.

1. *easy to obtain*
2. *low cost of possession of the reading materials*
3. *easy to read*
4. *attractive prices for possessing contents*
5. *easiness to carry around*
6. *weights*
7. *easy to share with others*
8. *need of special reading instruments, i.e. kindle, or eReader, iPad*
9. *free delivery or delivery incentives*
10. *compatibility in the formats*
11. *concern with copyright*

Hypothesis, test of hypothesis, and sampling

The hypothesis for this research is to find if there is a significant difference from the consumers' standpoint between e-book and printed books. The hypothesis for this study states:

H: There is no significant difference from the consumers' standpoint between e-books and printed books.

Alternatively, there is significant difference from the consumers' standpoint between e-books and printed books.

Due to the nature of this empirical study, the questionnaires were distributed to college students in a large university campus in the Northeast of the United States for a convenient sampling since students tend to browse on the websites and download e-books. The respondents were asked to evaluate the selected variables in a five point Likert scale, with 5=strong agree, 4=agree, 3=neutral, 2-disagree, and 1=strongly disagree. Since the data collected are of ordinal scaling, the Kruskal-Wallis nonparametric statistic test was used to test the hypothesis. The Kruskal-Wallis test is based upon a test statistic calculated from ranks established by pooling the observations from k independent simple random samples, where k is at least equal to two. The experimental situation is one where k random samples have been obtained, one from each of k possibly different populations, to test the null hypothesis that all populations are identical against the alternative that some populations tend to furnish greater observed values than other populations [Conover, 1980]. The null hypothesis is that the populations are identically distributed, or alternatively, that the samples were drawn from k identical populations

[Hamburg, 1977]. The Kruskal-Wallis test is believed usually to be more powerful than the several other nonparametric statistics [Conover, 1980]. Because the Kruskal-Wallis test is designed to be sensitive against differences among means in the k populations, the alternative hypothesis is sometimes stated as the k populations do not all have identical means [Conover, 1980]. In this study, a 5% significance level for the Kruskal Wallis test was selected to determine whether to accept or reject the null hypothesis. The null should be rejected if the significance level is less than or equal to 5% in any one criterion.

RESULTS

213 hundred consumers were surveyed at a college campus in the eastern U.S., with 97 completed responses for analyses, representing 45.5 percent of the total surveyed. Table 1 presents the general information of the respondents. All the respondents had experience in downloading electronic articles and/or books from websites. Table 2 presents online activities related to ebooks, electronic newspapers, and electronic magazines.

Table 1: Backgrounds of the respondents

<i>1. Age 1<18; 2=18-35; 3=36-55; 4>55</i>	Groups	Valid %
	<18	1
	18-35	99
	Total	100
<i>2. Your gender, male=1, female=2</i>		
	male	65
	female	35
	Total	100
<i>3. family annual income?</i>		
	<\$30k	19
	\$30-50k	15
	\$50-75k	27
	>\$75k	40
	Total	100
<i>4. Your highest education</i>		
	high school	7
	college	81
	graduate	11
	Total	100

Table 3 presents the Kruskal-Wallis test results. Significant differences are found in six variables: *easiness to carry around, low cost of possession of the reading materials, easy to share with others, easy to read, attractive prices for possessing contents, and free delivery or delivery incentives*. Therefore the null hypothesis is rejected.

MANAGERIAL IMPLICATIONS

Through our experimental and empirical survey we find that consumers do not have special electronic reading gadgets, as those usable gadgets have only been introduced in the recent few years. Electronic books and others have significant advantages over the traditional printed readings. Many electronic newspapers and magazines provide free access to their websites, so the readers can easily and freely read the articles, mostly from their computers. Some of the respondents expressed that they favor using their computers to read books, simply speaking why have to buy a special electronic gadget for ebooks. Although ebook downloading is growing rapidly, it, in some ways, still lacks some of the advantages printed books, e.g. they do not need to the concern of copyright. The findings of this preliminary study indicate that it may take some time before consumers will substantially change their reading behavior from the traditional printed books.

Since this research, as it surveyed only college students, we must be cautious in trying to generalize the outcome of the research, as the sample size and the representation were both narrow. It might be concluded that college students are the pioneers in adopting ebooks, more than other age groups.

Table 2. Issues related to reading of electronic books, newspapers and magazines.

6a. have you ever read any book, newspapers, and magazines on computer or on any electronic form?		Valid %
	Yes	95
	no	5
6b. do you have any e-readers, i.e. Amazon's Kindle, Sony's e-readers, or any other brand?		
	yes	13
	no	86
	3	1
7a. each week, how many hours on average do you spend on reading printed books, newspapers, magazines, including textbooks		
	<5	41
	5-10	39
	11-15	14
	16-20	1
	>20	4
7b. each week, how many hours on average do you spend on reading electronic forms of books, newspapers, and magazines, including textbooks		
	<5	53
	5-10	23
	11-15	12
	16-20	7
	>20	5

Table 3: *Kruskal-Wallis test* results for all variables.

Variables	Chi-Square	Asymp. Sig.
<i>easiness to carry around</i>	27.2682	0.0000
<i>low cost of possession of the reading materials</i>	20.9180	0.0000
<i>easy to share with others</i>	15.2329	0.0001
<i>easy to read</i>	9.1157	0.0025
<i>attractive prices for possessing contents</i>	5.9952	0.0143
<i>free delivery or delivery incentives</i>	4.9166	0.0266
<i>concern with copyright</i>	3.4174	0.0645
<i>easy to obtain</i>	2.5915	0.1074
<i>Weights</i>	2.1347	0.1440
<i>compatibility in the formats</i>	1.5880	0.2076
<i>need of special reading instruments, i.e. Kindle, or eReader, iPad</i>	1.5220	0.2173

Degree of freedom=1

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JAPANESE DEPARTMENT STORES: FACTS AND CHALLENGES

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ABSTRACT

The paper introduces first Japanese department stores and their functioning. Then, it discusses the challenge of sales decline at these stores and the responses to tackle these problems. Finally, it comments on these responses and gives some insights on what should be done to properly deal with the current situation of the Japanese retailing sector.

INTRODUCTION

Department stores began appearing in Japan around 100 years ago when established clothing stores began transforming into Western style department stores. About one century later, Japanese department stores have changed dramatically, and now operate as highly reputed large-scale retailers with a history and tradition of stocking a variety of merchandise consisting of both Japanese and top international brands including cosmetics, bags, jewelry, fashion items and lingerie. Currently, there are around 300 department stores located in the major cities across Japan, and are thought as city landmarks by customers who frequent them on a daily basis.

After an era of remarkable growth, Japan's nationwide department store sales have declined for eleven years in a row. In June 2008, they fell 7.6% year-on-year, and in May they slid 2.7%. February 2008 is the only month so far to have seen a rise in department store sales, and that was by less than one percent (Japan Department Store Association, 2008). In September 2009, sales at Japanese department stores total to almost 476 billion Yen with a slump of 11.7% one year ago. Almost all items sold at department stores have suffered a decrease in sales comparing to the same period of 2008. Furniture, housewives clothes and jewelry experienced the highest losses exceeding 10%. The only items that knew slight growths are foods namely sweets and imported foods, and home appliances (Japan Department Store Association, 2009). Many attribute the later items' sales growth to two main factors namely the strong Yen allowing sales of cheap imported items especially foods to invade the Japanese retailing sector and the Japan Eco-Point program stipulating sales of green home appliances (Koubaa, 2009).

In the decades of economic boom, Japan's department stores grew rich by selling high-priced luxury brands. So when recession hit and Japanese consumers started to demand value for money, department stores suffered more than other retailers, losing business to fast-expanding discounters and to the superstores operated by general dealers.

Hammered by these conditions, department stores in Japan are busy restructuring operations, negotiating mergers with rivals and re-conceptualizing the whole traditional philosophy of high luxury items, high personalized services and focus on senior customers segment that drove the Japanese department store for the past century.

At the first part, this paper presents and describes Japanese department stores as well as their functions and then explains their uniqueness. Afterward, it gives details on the current performance and strategies of these stores and comments on what has been taken to tackle sales declines in the third part. The paper closes with concluding notes.

JAPANESE DEPARTMENT STORES

History

The first "Western-style" department store in Japan was Mitsukoshi, founded in 1904, which has its root as a kimono (kimono is the traditional Japanese dress) store called Echigoya from 1673. When the roots are considered, however, Matsuzakaya has an even longer history, dated from 1611. The kimono store changed to a department store in 1910. In 1924, Matsuzakaya store in Ginza, the luxury district in Tokyo, allowed street shoes to be worn indoors, something innovative at the time. These former kimono shop department store dominated the market in its earlier history. They sold, or rather displayed, luxurious products, which contributed for their sophisticated atmospheres. Another origin of Japanese department store is that from Railway Company. There have been many private railway operators in the nation, and from 1920s, they started to build department stores directly linked to their lines' termini. Seibu and Hankyu railways companies are the typical examples of this type. In Japanese, a department store is called "Hyakkaten" meaning "one hundred goods shop". They are also called "Depato", a name brought from the English name department. As the term "Hyakkaten" suggests, they sell various kinds of stuff from fresh food, delis -usually on the basement food floors- to cosmetics, jewelry, clothing, daily-necessities, traditional goods such as kimono, pottery, lacquer ware, iron ware, furniture, etc. All items are of good quality. On the upper floor, there are many restaurants ranging from traditional Japanese to Western or Chinese, or so on for every generation. They also have amusement space for children to have fun, or often offer nursery for customers with babies. Depending on the week, they hold certain "Special Event", often collecting local specialties not only from local areas but from abroad inviting artisans of handicrafts or sales-clerks well experienced. Just in front of the customer, they have the demonstration about how they are making the stuff they've cherished for long. While at the food-counters, they offer customers some for tasting with reasonable explanation about their selling points. The customers, feeling as if they're visiting the local areas just for a while, or recalling the places they've visited before, can trace the areas surrounded with the very local areas. When they're going to have this special event, customers can usually learn the contents through commercials or advertisements. Many are looking forward to going to the department store to buy something special or just to enjoy the atmosphere, often lining up before the opening time of the stores. Among this kind of special event held in the department stores all over Japan, "Hokkaido Fair" is the most popular collecting most people because of the good quality of food of all kinds.

For customers who love to look at some Japanese artworks, they usually have the floor for art-exhibition. As they are proud of the good selection of goods in Japan, high quality items is always assured at Japanese department stores. Sales-clerks are so well trained, kind and polite and good at artistic wrapping skill. Department stores usually open from 10, closing around 7:30 to 8 or 9 depending on the location.

From the 1980s and onwards, Japanese department stores are facing the fierce competition from supermarkets and convenience stores, gradually losing their presences. Still, *depato* are bastions of several aspects of cultural conservatism in the country and gift certificates for prestigious department stores are frequently given as formal presents in Japan.

Japan totals today around 300 department stores all over its territory with a high concentration in big cities such as Tokyo, Nagoya and Osaka.

Unique services at Japanese department store

The most unique aspect of department stores in Japan is their second-to-none attitude to service and amenities. Within a comfortable and luxurious shopping environment, customers are the main focus as they are instantly greeted in a high quality, polite manner that cannot be experienced at any other department store anywhere else in the world probably. Almost all Japanese department stores offer the following services:

- Bowing uniformed assistants greet customers at opening of store. This is a daily ritual.
- Abundant sales help is available at every counter. Prospective customers are greeted with a smile and a welcome.
- The sales help is courteous and attentive. Staffs constantly smile and are not rude or nasty.
- Some elevators have bowing elevator operators.
- All purchases, no matter how small, are beautifully wrapped and presented. Shopping bags are provided.

- Customers are encouraged to touch and to try on merchandise. Products are not alarmed or chained.
- Money exchange centers are available and customers can change major international currencies and nearby countries' currencies.
- Modeling demonstration by computer imaging and free trial séance usually for beauty and skin care products
- On rainy days plastic bags are provided for umbrellas so customers and floors do not get wet. Plastic bags are recycled.
- Most Japanese department stores have a lower level devoted to the sale of a wide variety of foods such as:
 - sushi and sashimi (Japanese traditional food from row fish)
 - obento boxes (beautifully presented lunch or dinner combinations)
 - okonomiyaki (Japanese pizza)
 - uncooked fish and meat
 - candy, cookies, breads (freshly baked, samples)
 - coffees
 - ice cream (Japanese, Baskin-Robbins, Italian gelati)
 - fast food for snacks
 - Fruits and vegetables (fruits are usually individually wrapped and are, by international standards, very expensive.

Besides the staff' services, Japanese department stores are unique in the range of products, and international luxury brands, and services they sell. Most department stores sell luxury goods: jewelry and clothing from France, Italy, U.S., and Hong Kong. These items are quite expensive. Cosmetics sell very well as there is an emphasis on grooming. Japanese women, main buyers at department stores, are concerned with how they look and the quality of what they buy. In term of services, most Japanese department store have a bridal floor selling traditional wedding clothes and services for Shinto (one of Japan religious practices) ceremony and Western wedding clothes and services. Most stores offer a variety of moderately priced restaurants on the top floors; and an exhibition space for art galleries and special events such as an International Fair.

JAPANESE DEPARTMENT STORES AT CRISIS

The Japan Department Stores Association, the organization in charge of regulations and statistics about department stores delivers a grim image on the performance of Japanese department stores the last 18 months. The economic downturn hits hard sales volume and profit at these retailing spaces. Consumers looking for more effective value-quality ratio, abandon buying high price luxury items mostly sold at department stores and turn to less expensive retailers such as supermarkets, discount stores and online shopping. Moreover, the economic recession slumps households' incomes especially bonuses that were downgraded by 30 to 60 % and sometimes totally vanished. Housewives, traditional buyers at department stores and keepers of the household finance, lost much of their appetite for luxury items and for spending overall (Japan Statistics textbook, 2009). Consequently sales at department stores especially clothes and furniture dropped dramatically and hence department stores could not cope with the high cost of stores' activities and the considerable decline in sales of high-margin items. Overall, the crisis at Japanese department stores shows itself along three phenomena: sales decline, mergers, and launch of new items and targeting of new segments.

Sales decline:

Japan's department stores have little to feel positive about after sales results rolled in. From 2000 to 2008, sales per unit area have dropped consecutively in all major regions by more than 80%.

Table 1: Changes in department store sales per unit area in major cities (1,000 yen/sq. meter)

	Tokyo (23 wards)	Nagoya	Kyoto	Osaka	Kobe
1991	3,372.5	1,976.5	2,268.3	2,541.5	2,668.3

2000	2,203.3	1,333.4	1,288.0	1,738.8	1,378.7
2008	1,860.1	1,281.4	1,318.2	1,440.1	1,151.4
2000/1991	65.3%	67.5%	56.8%	68.4%	51.7%
2008/2000	84.4%	96.1%	102.3%	82.3%	83.5%

Source: Japan Department Store Annual Statistics 2008

According to data released by the Japan Department Store Association, sales at department stores nationwide fell 11.7% in September, marking the seventeenth consecutive month of decline. The survey covered sales at 87 department store operators with 272 shops.

Here is the breakdown of sales by individual categories:

- Clothing: 35.0% of total sales, down 15.6%
- Personal Effects: 11.9% of total sales, down 12.9%
- Miscellaneous Goods: 12.7% of total sales, down 13.5%
- Household Goods: 4.5% of total sales, down 11.5%
- Food: 30.7% of total sales, down 6.9%
- Services: 1.7% of total sales, down 0.8%
- Other: 1.6% of total sales, up 8.0%
- Gift Certificates: 5.4% of total sales, down 13.7%

In terms of trends, clothing sales at department stores continue to take a beating, as food sales remain higher than two or three years ago as a percentage of overall sales. Moving forward, it seems as though department store operators would do well to sell more of the “other” category- other than clothes, accessories and furniture that had been traditional items sold at department stores-. For the seventeenth month in a row, unseasonable weather has been blamed by officials at Japan Department Store Association for the decline in sales at department stores. In September 2009 sales plunged 7.8 percent from a year earlier on a same-store basis, the largest drop for the month since 1965 when comparable data became available (Japan Department Store Association trimestrial press release September 2009). The data covered 270 stores run by 87 department store operators.

Department store sales fell for the 19th straight month. Sales in the reporting month totaled 476.2 billion yen.

The steep decline shows the ongoing slump in personal consumption, reflecting the current trend for consumers to cut down on spending amid continued concern about the economic downturn, including rising unemployment and falling incomes. Seiichi Iioka, senior managing director of the Japan Department Store Association, expressed the view that it would remain difficult for sales to pick up for the time being, saying, "Employment concerns and income worries are expected to persist for a while." Meanwhile, the pace of year-on-year decline was smaller for the second straight month partly because favorable weather helped to increase the number of customers, the association said. In September 2009, sales of luxury art and jewelry items plunged 16.0 percent and those of clothing declined 10.5 percent. While overall food sales fell 2.5 percent, sales of confectionery edged up 0.5 percent on demand during Japan's so-called "Silver Week" holidays in the reporting month.

Merger of major department stores

Japan has a lot of shops. With the second highest sales in the world, Japanese retail is big business, and the biggest individual operators are the department stores (Maeda, 2004). As of October 1st 2009, Japan Department Stores Association counts 86 members holding 256 stores across Japan. Japan is seen by many analysts (e.g., Muramoto, 1937) as overcrowded by department stores to a level where cutthroat competition is dominating business practice among rival department stores. This number is expected to fall in the coming years after several mergers and/or acquisitions have been finalized or in the way to be finalized between major department stores operators in Japan and the shutdown of several stores due to sales decline and profit fall.

For instance, as part of efforts to accelerate the company's revitalization, Isetan Mitsukoshi (On April 1, 2009 Mitsukoshi and Isetan integrated their managements under Isetan Mitsukoshi Holdings, creating Japan's largest department store group in terms of annual sales) announces the shutdown of Kichijoji store – Kichijoji is a fashionable suburb of Tokyo – in March 2010. The 20,758 sqm store had sales of 17.4 billion Yen in 2008, down 6.5%, and employs 415 staff, and was refurbished just four years ago. This is the third closure announced recently. The company already closed the doors of two Mitsukoshi department stores earlier in May – the Ikebukuro store in central Tokyo and its Kagoshima store in Kyushu. Isetan Mitsukoshi is suffering like all major department stores, many which have seen sales fall each month since October 2008 by more than 10% –

and as much as 20% in some cases as detailed in Japan Consuming monthly report (Japan consuming, August 2009). Early November 2009, the company announced it only managed a tiny net profit for full year 2008, of 4.68 billion Yen from sales of 1.427 trillion Yen. Sales at Isetan stores fell 13% on year in April, following similar falls in February and March, and marking the ninth straight month of decline. Mitsukoshi sales fell 14% in April, the 12th consecutive month of decline. Thanks to store closures and cost cutting, the company forecasts its net profit will grow more than fourfold to 20 billion Yen in forthcoming year 2009, despite a forecast 10% fall in sales to 1.280 trillion Yen. Moreover, there will be some major rebranding in the Mitsukoshi and Isetan portfolio of stores. The newly merged group of Isetan Mitsukoshi Holdings Ltd is to open its department store in Osaka in 2011 under the double branded Mitsukoshi Isetan name, rather than the initially planned Mitsukoshi brand (Mitsukoshi press release). More significant is the fact that the new store will be managed by JR West Isetan, the joint venture company run by JR (Japan railways) and Isetan that currently manages the JR Isetan store in Kyoto. In effect, it will mean current Isetan managers will be in charge of the new 50,000 sqm Osaka store which is forecast to have sales of 55 billion Yen. This is perhaps not surprising; JR West Isetan has performed strongly, with sales growth for the last 10 consecutive years. The use of the Isetan name will likely give a more competitive edge to the new Osaka store, and lure fashionable customers more easily, a necessity given the new competition from the recently opened Hankyu Mens Kan, a rival railways company store of men's clothes. In addition Hankyu will reopen its Umeda (center of Osaka) flagship store in 2011 after a complete rebuild making for an intensely competitive local market for department stores. However the use of the double name is a compromise; Isetan executives were pushing for the store to be an Isetan store but were forced to concede the double name to help save face for Mitsukoshi. The saving of face could however end in a greater embarrassment if they fail to make the positioning clear and just end up confusing both Isetan's more fashionable target and Mitsukoshi's older customers. The new double name is significant and may provide a compromise elsewhere, there was speculation that the new company would change the name of the Mitsukoshi Ginza store to Isetan Ginza following a complete rebuild in 2010 but that there was still resistance from Mitsukoshi. A change to Mitsukoshi Isetan Ginza may provide the answer.

J Front (a famous department store in Tokyo), from its part, has agreed a deal with Seven & I to buy the Sogo flagship store in Shinsaibashi area in Osaka. The Daimaru -led company (fourth largest department store) is believed to have agreed a payment of 37 billion Yen for the store which has been loss making since its re-launch (NHK news) – while sales for 2008 stood at 44 billion Yen, they have been falling at double digit rates over the last year. The 40,000 sqm Sogo store will be merged with the Daimaru store next door, creating a 78,000 sqm emporium, making it the third largest store in the country after Matsuzakaya Nagoya (another J Front store) and Tobu Ikebukuro (a rival store). While J Front has not announced plans for the space, it is likely that it will use the merger to create a new space for specialty chain tenants given the already excess of department store capacity in Osaka, and the poor sales of the sector. Seven & I is currently overhauling the Millennium Retailing business through merger of head office operations and review of stores for sale and closure.

From their parts, Daimaru and Matsuzakaya are in the process of finalizing the details of a plan to merge their two businesses. Daimaru, which is the fourth largest department store group, and Matsuzakaya, a smaller operator, are expected to complete negotiations in the next few weeks. The combined group would become the largest department store group with sales of just over 1.15 trillion Yen, putting it ahead of Takashimaya which is forecasting sales of 1.05 trillion Yen for the year 2010 ending February 28. The deal makes sense and is in line with forecasts by analysts that the smaller chains would have to merge with the top four in order to survive an increasingly tough trading environment.

New items and new segments:

With clothing sales being pounded over recent months, department store operators in Japan have been pouring massive investments into their stores in order to upgrade facilities and introduce new product lines. Some of this - particularly in Tokyo's Ikebukuro, Shinjuku and Shibuya areas - has been motivated by the opening of new subway line.

Nikkei reports that "Fast Retailing", a clothing store owning the quickly growing clothes brand Uniqlo, plans to open a string of new stores within Japan's beleaguered department stores.

Starting this autumn with a store inside Seibu's Yokohama store, Fast Retailing will work with leading department stores to open 1,000 sqm plus large format stores. For Fast Retailing it will solve the problem of finding good city centre locations to affect its strategy to shift store locations more towards cities from suburbs; and for the department stores are hoping that Uniqlo's current popularity will translate into higher footfall.

Seven & I, which owns Seibu department store, is reported to be planning to invite Fast Retailing to open Uniqlo in other Seibu stores as well as in the Sogo chain. This confirms early news that Seven & I is planning to convert the bulk of its department store portfolio into hybrid department store/specialty shopping buildings. If executed well, Seven & I's plan could save its department store business, and provide a format that would work long-term. The trick will be to manage the positioning so that mass market chains like Uniqlo don't detract from the upscale image of department stores. Meanwhile Takashimaya is also reported to be planning a 2,000 sqm Uniqlo store at its Shinjuku branch, and other department stores including J Front are said to be in negotiations (Nikkei, August 2009).

If the Uniqlo stores work, the move will likely open the floodgates, allowing many more successful specialty operators like Point (clothes and accessories chain store) to open more stores in department stores – since Japanese department store chiefs will no longer lose face once the precedent has been set. The big question however is just how sustainable this strategy would be. Uniqlo is the hot chain of the moment but its popularity wane before. If that happens again, department stores will again be left with lower footfall sales space. On the other hand, with the precedent in place, adding more popular specialty stores will be easy enough.

Odakyu Shinjuku, one of the largest department store in Tokyo, opened a new floor for women in their 20s-traditionally not targeted by department store- October 1st. The space, called “Heat Up Parts” is located on the 4F and is an attempt to counter the tough competition from Isetan – which opened “Isetan Girl” aimed at the same market last month – and particularly Lumine, women's fashion store, where sales have risen rapidly while nearby department stores have fallen. The new space offers brands usually seen in the likes of Lumine and certainly never seen at Odakyu where most customers are usually over 40. 31 brands are on offer in the new 900 sqm area including Solberry, Indivi, Bianna Luxury and others. Odakyu also opened a new store called About a Girl by FrancFranc, selling household accessories for the same segment of young women.

In addition to renovating stores and assortment and improving customer-oriented services, department stores are also accelerating efforts to attract tourists from overseas, especially those from China and very recently Russia, to survive the intensifying competition from other retailers. Department stores are starting to accept China Union Pay debit cards and are offering store information in more languages including Japanese, English, Korean, and Chinese as well as employing more salesclerks who can speak Chinese and other languages. Mitsukoshi went further and plans to set up a tourist center and to provide parking space for tourist buses after the ongoing renovation.

COMMENTS ON JAPANESE DEPARTMENT STORES' RESPONSES TO SALES DECLINE

Despite strong political and economic back up, Japanese department stores reactions to sales slump and renovation plans put in place could not up to date bring efficient results. Many, however, have been criticizing the inadequacy of these measures, blaming the whole philosophy of department store business in Japan for the sales decline and calling for a reconsideration of the business model of these retailing entities. One might think simply, “They don't know what to do”, says The Nikkei (October 14). This seems a move from beyond desperation, analysts at Nomura Securities said. The Nikkei puts it simply: “Department store operators tend to cater to middle-aged and older consumers. Faced with sluggish sales of relatively expensive items, however, these retailers should now offer more products that younger consumers can afford.”

Shibuya's Tokyu Department store, for instance, is spending 180 million yen for a renovation that it believes will lead to a 10% increase in sales. Generally, department stores who have announced this strategy appear to be targeting women in their 20s. Shinjuku's Odakyu department store is spending 150 million yen - a fraction of the 8.5 billion yen it intends to spend overall by the end of fiscal 2009 - in order to create a new section of products designed to appeal to women in their 20s. These late moves appear to be less efficient. Driven by the history and the practices targeting senior consumers -probably the wealthiest segment in the Japanese society and the most willing to pay for high special services usually granted in Japanese department stores- department stores opening new floors for young consumers seems to unintentionally ignore young consumers' limited financial capacities and less admiration of excellent services compared to seniors consumers. Renovation plans made available young customers' products but could not ensure their affordability. “We would love to see the reports leading to the conclusion that such a move could result in a 10% increase in sales. With the way that declining department store sales are blamed on bad weather by the Japan Department Stores Association month after month, it would

almost seem to make more sense to invest the money in a weather control machine at this point", The Nikkei adds.

Japanese department stores should accept the realities surrounding their business and deal with these facts properly. It is not wise to keep with the high retailing store image while consumers are value-oriented during a time of crisis. The steep decline shows the ongoing slump in personal consumption, reflecting the current trend for consumers to cut down on spending amid continued concern about the economic downturn, including rising unemployment and falling incomes. Strategists at department stores should provide the later customers with what they need and they can afford. The later segment of consumers represents a major part of the Japanese society today. Department stores unwilling to tackle the characteristics of this segment would not find a way out of sales decline. In addition, the crisis seems to be more lasting and department stores' managers should anticipate further sales declines and further worried consumers. Seiichi Iioka, senior managing director of the association, expressed the view that it would remain difficult for sales to pick up for the time being, saying, "employment concerns and income worries are expected to persist for a while."

Renovations plans at department stores should incorporate these facts and hence new strategies should be built based on today's Japan market characteristics. The 70s, 80s and 90s Japanese consumers willing to spend high to get special range of services and luxury products are not now as many as they were. Actual Japanese consumers worry a lot about their budgets and their futures; therefore, they are more willing to sacrifice on services and luxury in profit of competitive prices. Driven by this spirit, these consumers cannot fulfill their consumption needs at the department stores with their actual business model. This explains why other retailing formats such discount stores, supermarkets, and online shopping are doing much better than department stores despite the common environment of economic crisis.

CONCLUDING NOTES

Japan has a lot of shops. With the second highest sales in the world Japanese retail is big business, and the biggest individual operators are the department stores.

In the course of their growth Japanese department stores developed a network of stores and suppliers that spread across the entire country, and coupled with their prestigious positioning, they wielded significant marketing clout, yet, that ended in the early 90s. They have experienced near-continuous decline in terms of store numbers, employees and sales figures. Whilst they still have a major role to play in the Japanese retail landscape, not least of which being their physical presence in some of the largest and most valuable real estate in Japan, they are a much-reduced power.

At the core of their business, Japanese department stores have traditionally been simple purveyors of premium-quality goods. Consequently, and in the course of their growth, they relinquished significant control of their business to their manufacturers and suppliers. Following the recession of the 1990s and some major developments within Japanese retail as a whole, their passive business model meant they were increasingly unable to adapt and compete.

A maturing consumer orientation with respect to brands means the average customer now seeks a range of brands across a range of prices. Within the apparel sector for instance, this range of price-points was not being offered by the department stores and there new consumer needs provided opportunities for a more flexible retail format to emerge: the Specialty Private (Label) Apparel (SPA) chain.

SPAs focus on a branded strategy and a vertically integrated business model that allows much greater control and flexibility over the supply chain, meaning they are far faster to adapt to the changing needs of an increasingly fickle, fashion-hungry market. The result of which is that most of the major SPAs in Japan have experienced strong growth in recent years in terms of sales, employees and outlets. Some prominent examples of which are, the domestic retailer, Fast Retailing (with its Uniqlo brand), and the international fast-fashion retailer Zara. As the SPA model demonstrates further success in Japan it seems likely to attract additional resources from the large domestic trading firms.

Facing this new competition, department stores have lost a great deal of their retail power. Whilst the large urban stores still provide an important retail function, especially with regards to luxury cosmetics and premium food, these former mainstays of the market are being increasingly marginalized. Department stores are now positioned between the bulk of the market, who are increasingly served by SPAs, and the top-end consumers of luxury brands (seniors consumers) - not the sweet spot in the market by any stretch.

In the face of increased competition and overall decline, department stores have turned to increasingly centralized corporate management, and the sector has experienced widespread consolidation. Following a flurry

of recent mergers the market is now led by only four major operators, J. Front, Isetan Mitsukoshi Holdings, Takashimaya Co. and Millennium Retailing Inc., with each group boasting annual sales in excess of 1 trillion yen (around 10 billion USD).

Clearly, such formidable businesses are not likely to disappear anytime soon but, with a dwindling influence over the market as a whole, those that fail to understand and respond to their consumers may be consumed themselves.

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THE CONSTITUTIONAL RIGHT OF CHILD-HEADED HOUSEHOLDS IN SOUTH AFRICA TO ACCESS SOCIO-ECONOMIC RIGHTS

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ABSTRACT

A variety of factors, including the HIV/AIDS pandemic, cause children under the age of 18 years to care for their younger siblings in the absence of an adult primary caregiver in so-called child-headed households. These children are particularly vulnerable in society as they are often discriminated against. It is difficult for children in charge of a child-headed household to access socio-economic rights to help lighten their burden. This paper will focus on the applicable legislation implemented by the South African government in an effort to make access to social assistance a reality for children in charge of child-headed household.

INTRODUCTION

In the Southern African context orphans are defined as children under the age of 18 years as children whose mother, father or both parents are deceased. South African orphans can therefore be divided into three categories, namely maternal orphans (mother is deceased), paternal orphans (father is deceased) and double orphans (both parents are deceased). Where a parent's status is described as unknown the child is also considered an orphan.

The General Household Survey of 2007 indicated that approximately 20% of all South African children are considered orphans in terms of the definition mentioned above. This amounts to 3.7 million children. 12.9% of South African children are paternal orphans, 3.4% are maternal orphans and 3.8% are double orphans. This number increased with 700 000 children since 2002. The increase in orphans is mainly due to the AIDS pandemic.

The term OVC (Orphaned and Vulnerable Children) is widely used to describe children orphaned and affected by the HIV/Aids pandemic where these children are living and caring for family members suffering from the disease. Children orphaned by Aids are not the only children living in child-headed households. Because of the high prevalence of poverty and unemployment in South Africa, it is necessary for large numbers of adults to move away from home in search of employment without being able to move the family with them. This leaves the children staying at home looking after themselves if no other adult caregivers are available to take care of them, creating a child-headed household.

A child-headed household (also called a child-only household) is defined as a household where all the members in the household are under the age of 18 years or where a child is in charge of a household where an adult is terminally ill and the responsibility for taking care of the household falls on the shoulders of a minor. The child then needs to care for children (and possibly terminally ill adults) while they are still children themselves. At a time when they need an adult taking care of them, they have to assume the responsibilities of an adult, taking care of the physical, emotional, social and financial needs of others.

Although statistics show that only 0.8% of the children in South Africa are living in child-headed households the numbers involved indicates that this amounts to 150 000 children living in 79 000 child-headed households. 49% of children living in child-headed households are over the age of 14 years and 9% are younger

5 years old. This number has not significantly increased from 2002 (from 0.67% to 0.81%), but is expected to rise in future to more and more people dying of AIDS-related diseases.

Sloth-Nielsen argues that the reason why we should be concerned with a rise in child-headed households, are because the kinship networks are “stretched to the limits”. Where orphans were cared for by family members in the past, this situation is changing as caregivers (e.g. grandparents) are already caring for other siblings, or are deceased as well.

Even though a large percentage of orphaned children living in child-headed households are only living in these conditions on a temporary basis whilst other arrangements are being made to accommodate them, the challenges facing them in the interim are still very real. For other children living in a child-headed household is not a temporary situation, but the only possible solution that they find acceptable.

South Africa has a very extensive social assistance policy, assisting vulnerable groups of people through social grants available to them. The problem faced by many children in child-headed households is that these benefits can only be accessed if the applicant is in possession of a South African identity document, as well as other supporting documents like a birth certificate for the child in an application for child support grants. The child in charge of the child-headed household often is not in possession of an identity document or the other necessary documents, and is in no position to obtain them. The child can therefore not access the grants that should be available to them.

LEGISLATION AND CHILD-HEADED HOUSEHOLDS

The South African Constitution (Act 108 of 1996)

After apartheid was abolished by the first democratic elections in South Africa in 1994, the South African Constitution was introduced as the supreme law in the country. The Constitution is based on the fundamental values of freedom, equality and dignity. S9(1) of the Constitution states that all people are equal and that neither the state, or any other person is allowed to unfairly discriminate against anyone on various grounds, including race, gender and age.

South Africa has one of the most progressive constitutions in the world in terms of human rights included in the constitution. Chapter 2 of the Constitution (the Bill of Rights) does not only include civil- and political human rights, but also socio-economic rights that the people of South Africa are entitled to. The sections of the Constitution relevant to children in child-headed households are s27 and s28.

S27(1)(c) states that everyone is entitled to receive social security, which includes social assistance if they are not able to care for themselves or their dependants. This right to social security and social assistance is not an immediate right, but a right that must be realized in a reasonable time, within available resources.

Children’s rights are discussed in s28 of the Constitution. S28 is not subject to progressive realization, but is immediate rights all children under the age of 18 are entitled to with immediate effect. S28(1)(c) entrenches a child’s right to basic nutrition, shelter, basic health care services and social services. S28(2) clearly states that in all decisions regarding children, the best interest of the child is of paramount importance.

It is clear that the South African Constitution intended children to be included as recipients of socio-economic rights. The South African government implemented various pieces of legislation to give effect to the constitutional duties placed on them relating to the socio-economic rights of children.

Children’s Act 38 of 2005 (as amended)

The Children’s Act of 2005 gives the Children’s Court the authority to place a child in a child-headed household, headed by a child, under the supervision of an adult person designated by the court (s46(1)(b)). The Children’s Act of 2005 did not give adequate protection to children living in child-headed households. This situation was rectified by the implementation of the Children’s Amendment Act of 2007. The Amendment Act

dedicated a specific section (s137) on child-headed households, affording children forming part of a child-headed more rights and protection than in the past. The Children's Act of 2005 and the Children's Amendment Act of 2007 are now referred to as the Children's Act (as amended).

Children living in a child-headed household were classified by the Children's Act (as amended) as children in "especially difficult circumstances in special need of care and protection".

This Act (s137(1)) gives the provincial heads of the Department of Social Development (DSD) the authority to recognize a household as a child-headed household if it meets the following requirements:

- The parent or primary caregiver is terminally ill, has died or the status is unknown
- No adult family member is available to care for the under-aged children in the household
- A child over the age of 16 years has taken on the responsibility of caring for the household
- It is in the best interest of the child/children to remain in the household.

S137(1) of the Children's Act (as amended) recognizes that it is not always in the best interest of the child to be placed in alternative care structures, whether it is foster care or formal placement in a child care facility. Where siblings live together in one household, it is in certain circumstances preferable to keep them together in the same household, instead of splitting up the family unit by placing the children with different caregivers. In order for children, who were orphaned or abandoned by their parents, to keep possession of the family home it is sometimes also necessary to keep the children together in the home under the care of a under-aged primary caregiver.

In terms of S137(1) the primary caregiver in a child-headed household needs to be older than 16 years. This creates a problem if the primary caregiver in the household is younger than 16 even though research shows that the primary caregiver in the majority of child-headed households are older than 16. Unfortunately there are households where children as young as 8 years old are heading the household. Children younger than 16 years responsible for a household is primarily found in situations where the parent or adult family member in the household is terminally ill and the young child needs to take care of the patient as well as younger siblings.

The Children's Act (as amended) recognizes that children do not always have the experience and knowledge to spend the social benefits wisely. Children in charge of child-headed households also do not have the authority to apply for access to social support grants. To remedy this situation s137(2) makes provision for the supervision of an adult designated by the Children's Court, an organ of the state or a non-governmental organization (NGO) to apply, collect and administer any social grants the household may be entitled to. This supervising adult is accountable to the Provincial Department of Social Development, the Children's Court or the applicable NGO for the administration of any money received on behalf of the child-headed household.

The supervising adult can only make decisions regarding the household with the consent of the child acting as the head of the household, and any other children in the household where they reached a stage of maturity to the extent that they can be involved in the decision-making process.

The child in charge of the household is still the person responsible for making the decisions involved in the day-to-day running of the household as the primary caregiver. The appointed adult must, however, assist the head of the household in accessing the social assistance grants and acquiring any required identification documents. The supervising adult must also assist the members of the child-headed household in accessing their other socio-economic rights, such as education and health care treatment.

The Children's Act (as amended) also provides for other forms of relief for the vulnerable citizens in our society. These forms of relief include services to prepare children for general education, such as the early childhood development (ECD) programs. Support to children in child-headed households is provided through mentoring programs to ensure that all children in the household attend school. Drop-in centers will be established in vulnerable communities. These drop-in centers will offer after-school programs to assist affected children with homework. The centers will provide nutritious meals to vulnerable children in areas where food insecurity is high. All these programs will be introduced to try and prevent children from entering the labor market too early in an attempt to earn money to support the household.

The main challenges faced by the South African government in implementing all the provisions of the Children's Act (as amended) is a severe shortage of skilled social service practitioners. Social service practitioners are necessary to act as supervising adults assisting children in a child-headed household in accessing and administering social grants, as well as adult mentors assisting these children in attending school. Volunteers are necessary to assist at drop-in centers and with the ECD-programs.

To ensure that the social service practitioners involved in the various programs do not abuse the children finding themselves in an already vulnerable and desperate situation, the practitioners need to be registered with the Department of Social Development under the Social Service Professions Act (Act 110 of 1978)

Social Assistance Act (Act 13 of 2004)

Although the primary responsibility for the material well-being of children rests with the parents of the child, the South African government realizes that this is not always possible. The Social Assistance Act gives effect to s27 of the South African Constitution. The Social Assistance Act provides for the different social grants available to the people of South Africa. The grants that are relevant for the children living in child-headed households are the child support grant, the foster care grant and the care dependency grant.

Statistics from the Department of Social Development indicates that over 9 million children benefitted from child support grants in 2009. The child support grant is not a big amount of money (R250 per month since April 2010), but it does play a large role in improving the lives of the children in South Africa that needs it most. Child support grants play a valuable role in providing nutrition as well as access to education and health care services to vulnerable children.

Child support grants are available to children up to the age of 15 years. This restriction on the age of the child receiving the child support grant poses another challenge for children in a child-headed household as children between the age of 16 and 18 do not qualify for these grants.

Once a child qualifies to receive the child support grant, he/she automatically qualifies for free schooling and health care. It is clear that child support grants are a very important tool in providing the socio-economic right children are entitled to. For this reason children in child-headed households should receive all the necessary assistance in accessing these grants as research has shown that children living in child-headed households are on average living in poorer conditions as children living with an adult primary caregiver.

To qualify for the child support grant the family must meet the requirements of the means test. The means test simply states that a single person qualifies for the child support grant if their monthly income does not exceed 10 times the grant amount (R2 500 per month). This amount doubles for a couple. This means that a child supporting a family must receive an income of no more than R2 500 per month. Most children in charge of a child-headed household do not come close to this amount as they are unemployed or only works part-time.

Children living in child-headed households are largely dependent on money sent to them by family members not living with them, and donations given to them by charitable organizations. This income is not constant and the children cannot rely on a steady source of income to care for themselves. For this reason older children drop out of school to enter the work force to earn money to care for their younger siblings. Because of their inexperience, age and lack of someone to look after their best interests, these children are often abused by employers. It is therefore of the utmost importance that children in child-headed households gain access to child support grants.

Foster care grants are paid by the Department of Social Development to any caregiver taking care of a foster child. Foster care grants are not dependent on the means test. Any person taking care of a foster child is entitled to the foster care grant. The aim of this grant is to encourage relatives or members of the community to take care of orphaned or vulnerable children, without added financial expenses. To become a foster parent the court needs to approve the application after receiving a report from a social worker regarding the circumstances child's circumstances. Social workers need to review all existing foster placements every two years to ensure

that the placement is still in the best interest of the child. In 2009, 500 000 foster care grants were disbursed for children in foster care.

Children who are taking care of siblings with severe disabilities are entitled to the care dependency grant. This grant is a non-contributory monthly cash transfer to the caregiver if the disabled child requires permanent care. Care dependency grants were paid to the caregivers of 100 000 severely disabled children in 2009.

Applications for social assistance grants need to be accompanied by the applicant's identity document or, if the applicant is a minor, by an identity document or birth certificate (s11(1) of the Social Assistance Act). S11 also states that "...if no valid proof is obtainable, a sworn affidavit... may be accepted". The Department of Social Development did not implement this provision in the Social Assistance Act until they were forced to do so through a High Court order in 2008 (*Alliance for Children's Entitlement to Social Security v Minister of Social Development*).

ADDITIONAL CHALLENGES FACED BY CHILDREN IN A CHILD-HEADED HOUSEHOLD

Children living in child-headed households face many challenges in their everyday lives. They are even more vulnerable than other children in society, cared for by at least one parent. A higher number of children living in child-headed households tend to drop out of school without completing their schooling, either because they need to find employment to maintain their siblings, or because there is no one motivating them in attending school.

Children entering the economy by being employed prematurely run the risk of being exploited by employers. These children have nobody to advise them on acceptable work conditions, and they are willing to work in horrible conditions for very little remuneration, just as long as they earn money to support the household.

The South African Constitution makes socio-economic rights available to all citizens of South Africa if the necessary requirements are met. Socio-economic rights include the right to access to adequate housing (s26), the right to health care, food and water (s27) and the right to education (s29). Primary caregivers often struggle to get access to these socio-economic rights, as they do not have all the required documentation, and they do not have the means to obtain them. Children often are not aware of their socio-economic rights, because they have no one advising them on these rights that they are entitled to.

S28 of the Constitution covers all the rights of children in the country. This section specifically focuses on children not living with their families. The South African government needs to act *in loco parentis* for these children in providing shelter, basic nutrition, education, basic health care and social security. The problem again exists in children in child-headed households in accessing these rights as they do not have the assistance of an experienced adult assisting them in these applications.

Children living in child-only households also are in danger of being sexually abused by neighbors or other members of the community as they have no adults looking after their best interest and protecting them from the dangers affecting all children.

This paper does not focus on these specific challenges that children in child-headed households face. Further research is necessary on all these challenges, to realize the full extent of the problems faced by children in child-headed households.

CONCLUSION

Children as a group are vulnerable citizens of society that needs protection against discrimination, abuse and unnecessary suffering. The responsibility of child care should rest with the parents of the child, but

unfortunately circumstances do not always allow this. A variety of factors influence the circumstances in which children live, such as parental absence, poverty and abuse.

As indicated a various situations give rise to the existence of child-headed households. Even though the percentage of children living in child-headed households is quite small, more than 150 000 children in South Africa are affected by this phenomenon and this number cannot be ignored.

Social assistance is of the utmost importance for children living in child-headed households. The grants available to them go a long way in improving their living conditions. In the past it was nearly impossible for children living in child-headed households to access the social grants available to the rest of the community, largely because of age discrimination. Children younger than 18 years could not apply for social grants, as they had no contractual capacity to sign application forms. South African identity documents were a requirement in applying for social grants.

This situation was rectified by the South African government by implementing the Children's Act (as amended) and implementing the policies provided for in the Social Assistance Act. Today no primary caregiver older than 16 years should have trouble accessing social grants to assist the household.

Even the South African government already greatly improved the possibility of access to social grants of children in child-headed households; the fact of the matter is that in practice all children living in these households are not yet receiving the benefits they are entitled to, because of a lack of human resources and financial constraints.

Children are the future of our country. We have the positive duty to take care of them, protect them and ensure that their best interests are looked after. The South African government needs to address the existing problems hampering the implementation of the Children's Act (as amended), as well as the provisions of the Social Assistance Act in providing children in child-headed households with social grants.

These children are already the victims of circumstances beyond their control. They have already assumed adult responsibilities at a young age, when they actually needed an adult to take care of them. In many cases they have experienced the trauma of caring for a terminally ill parent, and watching them die. Do they not deserve someone fighting in their corner for a change, without budgetary and human resource excuses standing in the way of a better life?

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THE LEGAL PROTECTION OF INDIGENOUS KNOWLEDGE IN SOUTH AFRICA

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ABSTRACT

There is a current outcry around the world concerning the protection of Indigenous Knowledge (IK). South Africa is not immune from this outcry. States, including major international bodies like the WTO have battled, if not neglected, to find the best approach to the protection of IK. The existing intellectual property laws have not resolved this. South Africa has recently adopted a policy on IKS. This paper seeks to critique this policy, and examine its potential pitfalls and benefits, in relation to the protection of IK. The paper will argue that although the policy represents a step in the right direction, serious gaps still exist in the intellectual property protection framework, which the policy has not closed, or is likely to close. In the discussion the paper will, to a limited extent, make some comparison between the South African situation and other relevant jurisdictions like Australia, where the protection of IK has been a thorny issue. The paper will also briefly reflect on the wider implications of the protection of IK on other spheres like education, research, etc. The paper will finally recommend a revision to the policy.

INTRODUCTION

South African intellectual property framework, just like that of most other jurisdictions the world over, has struggled, if not failed, to deal with the protection of indigenous knowledge. The same can be said of the international bodies like WTO. South African government has recently developed a policy to protect indigenous knowledge. The paper therefore seeks to critique this policy, pointing out its strengths and pitfalls.

HISTORICAL BACKGROUND TO THE SOUTH AFRICAN INTELLECTUAL PROPERTY SYSTEM

The history of the intellectual property system, more especially the patent system, can be traced back to South Africa's colonial past. Most developing countries, upon gaining independence, incorporated the patent laws of their ex-colonial masters (Kameri-Mbote P in Yash Vyas *et al: Patents and Development in Law and Development in the Third World* (1994) University of Nairobi (Source: www.ielrc.org/content/a9401.pdf). In the case of South Africa, the English commercial laws, more in particular patent laws, were adopted (Hosten *et al* 1995: 933). The Statute of Monopolies of 1623, passed in England, is one of the earlier legislations regulating patents (Hosten *et al* 1995: 933).

At international level, the Paris Convention for the Protection of industrial property, which is a multilateral treaty governing the protection of inventions and other forms of industrial property, was also entered into around 1883, with subsequent revisions (Kameri-Mbote: 1994:2). The World Trade Organization (WTO), and World Intellectual Property Organization (WIPO), a UN agency, also regulate the issues of intellectual property. These international legal instruments have created the tone and philosophy for the local legislations, which are discussed below.

COMPARATIVE POSITION WITH FOREIGN LAW

While many countries, more especially those that were once colonized, have experienced tension between indigenous law and non-indigenous law (laws of mainly western origin or the common law), only the Australian position will receive brief attention here. Both Australia and South Africa share some history, in that they were both at some stage under British control, although South Africa also has a Dutch history. The areas of tension between the indigenous law and non-indigenous law are similar in both countries. There are for example, in both countries, differences of outlook between the two legal systems: Indigenous law is more holistic in approach (covering broad areas like right to specific burial sites, sacredness etc), is more communal than individualistic, and less formalistic. Non-indigenous law represents the opposite. In South Africa, however, there is very little jurisprudence dealing with the tension between indigenous law and non-indigenous law in the area of protection of indigenous knowledge (IK). This is because of the fact that very few cases have been dealt with in a court of law, dealing with the protection of IK. This does not however ignore other extra-judicial arrangements like contractual arrangements, as the one entered into between the Khoi and San communities on the one hand, and the Council for Scientific and Industrial Research (CSIR), on the other, concerning the patents derived from the hodia plant, using the traditional knowledge of the Khoi and San communities (*The Protection of Indigenous Knowledge through the Intellectual Property system: A policy framework*, p15. The DTI, South Africa)

Some lessons can therefore be drawn from the Australian position, where disputes around the protection of IK have been brought before, and adjudicated by, the non-indigenous courts. The Bulum Bulum case is one such example, which dealt with how consent should be given by the indigenous communities, in this case the Ganalbingu people (Janke T 2008: 64). Beyond the courts, the Australian Constitution makes provision for the government to promulgate special laws regulating intellectual property (Janke T 2008: 67). This, in my view, creates space for some accommodation of IK in certain instances. In both countries, common law actions like passing-off and trade secret law will be available to owners of IK, though to a limited extent.

THE SOUTH AFRICAN INTELLECTUAL PROPERTY FRAMEWORK

The South African intellectual property law currently takes the following form: The patent system, regulated through the Patent Act, 1978, deals with the protection of inventions; the copyright system, regulated through the Copyright Act, 1978, deals with the protection of copyright works; the Designs system, regulated through the Designs Act, 1993, deals with the protection of designs, as well the trade mark system, regulated through the Trade Marks Act, 1993, which deals with the protection of trade marks.

Intellectual Property and Indigenous knowledge From a Constitutional Point of view

The Constitution of South Africa makes provision for the protection of human rights. Its guiding values are human dignity, equality and human freedom. How is the constitution relevant to the protection of IK and IP? S9 of the constitution provides for the equal treatment of persons on the ground of race, gender, culture etc. This provision can be used by owners of IK, arguing that IK should be treated equally as IP. The implication of equal treatment here means that criteria should not be used that negatively work against IK. For example, copyright laws that require that a work be reduced into writing before protection might be viewed as unfairly discriminatory against IK. S16(1)©, dealing with artistic creativity, can be used by the authors and owners of both IK and IP to protect their works.

S30 of the constitution provides for everyone to participate in the cultural life of one's choice. S31 provides that persons belonging to a cultural community may not be denied the right, with other members of that community, to enjoy their culture. These two provisions may serve as the basis for protection of IK, which is a cultural product. Any law that unfairly deny protection might be unconstitutional. The legislations that use criteria that favour IP over IK might therefore be unconstitutional, provided that they fail to meet the guidelines under s36 ('the limitation clause'). Under s36 of the Constitution, certain rights in the Bill of Rights (chapter 2 of the

Constitution), can be limited by the law of general application, provided that the law is reasonable and justifiable in an open and democratic society.

Requirements for protection

Are there similarities between the different laws governing intellectual property? What run through the veins of the requirements of the different intellectual property laws are the elements of creativity and uniqueness. The requirements of newness (as for patents and designs), non-obviousness (patents and designs), originality (as for copyrights and designs), distinctiveness (as for trade marks), appear to represent the elements of creativity and uniqueness. The requirement of usefulness applies only to patents and designs. All imply that the subject or part of it, of protection must not have been previously available. The question to be posed is whether these requirements are capable of protecting the Indigenous Knowledge. The response to this will come after having a look at the nature of indigenous knowledge that seeks the protection.

THE NATURE OF INDIGENOUS KNOWLEDGE

Indigenous knowledge can take the form of indigenous technology, traditional knowledge, traditional architectural works, folk songs, clan names, oral history and narratives, traditional games, traditional places, burial sites, oral poetry, etc.

The nature of IKS becomes clearer when its characteristics are looked at, in comparison with those of the dominant (IP) system. The following are its key properties or characteristics: i. communalism, as against western individualism. ii. Immemoriality as against time-specific western IP system. iii. Its flexible as against the formalist approach of the IP system iv. Its non-commercial dimension. v. Its non-cost-based approach as against the cost-based approach of the IP system. vi. Its inclusive as against the exclusivist approach of the IP system. vii. Its holistic approach, as against the isolationist approach of the IP system. viii. Harmonizing as against disharmonizing approach. ix. Generally custom-based, rather than legislated.

Below follows a brief discussion of these characteristics:

Communal Dimension of Indigenous Knowledge

Traditional knowledge is communal. For example, there is no emphasis on who the founder, inventor, designer or author is. Using non-indigenous standards, this may have sometimes led to situations where works of IKS could be said to have no founder or originator, as these cannot be easily identifiable.

Non-time specific Dimension of Indigenous Knowledge

The IP system is usually time-specific. For example, application for the protection of patents has to take place within specific time-frames?. The protection of inventions is granted only for a period of 20 years, subject to renewal. The protection of designs is also linked to specific periods, depending on whether it is aesthetic or functional design. Trade marks are protected for a period of 10 years, also subject to renewal. Though under the common law there might be no specific periods of protection, the Prescription Act is likely to apply to actions arising from common law.

On the contrary, both the origin and protection of IK are not time-specific. The origin is usually from time immemorial. If the time-periods of protection provided for under the IP system were to be used, it would be difficult to protect IK. The periods would long have lapsed.

Non-formalist (Substantivist) dimension as against the formalist approach

The dominant IP system focuses on reductionism i.e the things to be protected have to be reduced to a particular form. This relates specifically to copyright law, which requires that for a work of copyright to be protected, it must reduced to a particular form, as well as being original. The particular form referred to here might be

reduction to a written form. Using the first requirement (reduction to a particular form), it will be difficult for IK to be protected, as IK works are usually not in writing, or reduced to the type of form contemplated in the IP system. If these criteria were to be used for IK protection, most folk songs, oral stories, dances and poetry would not be protected. The first person to record these would suddenly become the author, and eventually the owner of copyright.

In the case of other IP works like inventions, designs and trade marks, registration is also required under the IP system. The same applies in the case of copyright in respect of cinematograph films (s6 of the Registration of Copyright in Cinematograph Films Act 62 of 1977). These processes are not required under the IK system. Another type of formalism can be in the form of strict focus on rules, rather than certain broad principles. The IP system is more rule-based, rather than principle-based (in the substantivist sense).

The IP system's requirement of non-obviousness makes the protection of IK difficult, as most of it will already be available (s25(1) of the Patents Act). This requirement could also be implied under designs law (s14(1)(b) of the Designs Act), which requires that the work (functional design) must not be already part of the state of art, while the Patents Act requires that the work must involve an inventive step. While these requirements might make it difficult for holders of IK to apply for protection, as the knowledge will more often than not be already part of the state art, if we use the IP standards, the provisions can also be effectively used against those who want to steal IK and protect it for themselves.

Non-commercial dimension of IK

Commercialization has been built into the requirements for the protection of most ip works. For example, for an invention to be protected, it must meet the threshold of usefulness, amongst other requirements (s25 of the Patents Act, 1978). The invention must be useful in industry, trade or agriculture. This makes inventions that might be socially useful, but not commercially useful, non-protectable. IKS does also require this type of usefulness i.e. non-commercial usefulness.

Non-cost Dimension of IK

The western IP system is usually cost-based i.e the protection is available subject to the payment of certain costs. When a person has to apply for a patent, he has to pay some fees. Renewal of the period of protection of the invention is also subject to the payment of fees. Parties also have to be represented by paid agents during proceedings involving patents (s9(a) of the Patents Act). There are also indirect costs arising out of the fact that applications for registration of patents have to happen only in a particular area, being the CIPRO offices in Pretoria (s5(1) of the Patents Act). This creates indirect costs related to access. S14 of the Registration of Copyright in Cinematograph Films Act, 1977, also requires parties to give security for the costs of the proceedings before the Registrar. The system also requires that inspection of the register also be accompanied by payment of fees (s12 of the Patents Act). On the contrary, the protection of IK is not usually dependent on the payment of fees.

Non-exclusive dimension of IK

The dominant IP's philosophy is one of focusing on creating exclusive zones i.e ensuring that the others are excluded from ownership, use etc of the protected work. The emphasis is less on ensuring that the owner of the work is not excluded, but more on ensuring that others are excluded. Where the focus is on ensuring that others are excluded, this means that even if the owner of the work has little or nothing to loose out of others using the work, he will focus on excluding them. For example, A, the owner of particular copyright work, will insist on excluding B from copying, even if B could still not buy the copyright if prevented from copying. In the case of patents, this has resulted in situations where inventors apply for patents, just for the purpose of preventing others from using them. Though the IP system provides for compulsory licensing in certain instances of abuse, it is easier for the owner of the inventor to escape from such. On the contrary, the IK system not only focuses on non-exclusivity, but also inclusivity. Exclusivity is therefore a secondary issue.

The holistic dimension of IK

The nature of protection of IK is usually holistic, where even emotional aspects come into play. Non-indigenous IP law might for example not protect a particular burial site, on the basis that the community can be given another site to bury their loved ones. The emotional attachment to using a particular site, where other family members have been buried, might be lost site of. The IP system might also not easily protect aspects like sacredness. So the scope of protection under IK is broader. Another element of holism, which in itself is a unique characteristic, is the fact that in the IK system there is, unlike in the IP system, no separation between authorship and ownership of copyright. The IP system, under the Copyright Act, makes it easier to have one buy over ownership, even though one is not an author.

The harmonizing dimension of IK

In general, the IK system focuses on harmonization rather than creating disharmony. This approach will become important in instances where one party has to sue another.

The custom-based dimension of IK

IK is mainly governed by custom and practices. We do however, in the South African context, have legislations regulating indigenous law e.g the Black Administration Act, 1927. Those regulations are however more of a codification of existing customary practices, and at worst, a distortion thereof. IP, on the other hand, is usually regulated through legislations. There are however a few instances where the common law regulates this, for example, passing-off and laws relating to trade secrets. Some of the above characteristics associated with IK are so unique that they make it difficult for the current dominant IP system to be used in relation to them. The protection of IK within the current legal framework will therefore pose some challenges. Below are some of the challenges, some already linked to the characteristics discussed above:

That the work be first reduced into a particular form

As already indicated elsewhere in the discussion, the IP requirement that the work has to be first reduced into a particular form is itself an obstacle. This is more so in the case of copyrights. S2 of the Copyright Act provides,

“A work, except a broadcast or programme-carrying signal, shall not be eligible for copyright unless the work has been written down, recorded, represented in digital data or signals or otherwise reduced to a material form”. As already indicated, this makes it difficult for indigenous works like dances, oral stories etc from getting the protection under the Act. This also means that a person who first reduces it into writing will get the protection for an existing work that was not initially reduced to writing. The date and time of reduction into writing becomes the date and time of making the work (s44 of the Copyright Act). Indigenous works can therefore easily be stolen without violating the Copyright Act.

The eligibility of a work, despite its infringements of other existing works

The Copyright Act makes it possible for a work to be eligible for copyright protection, even if it violates an existing work (s3 of the Copyright Act). This means that existing indigenous works, even if they were to be already protected as copyright works, can still be worked on, and somebody else claims protection, even if the existing copyright on the work is infringed.

The problem of *locus standi*

The dominant system is very strict on the issue of *locus standi* in case of one person taking a legal action against another. This can be complicated where a person wants to take action against another, for violation of an IK work. The question might arise as to whether the claimant has a legal standing to sue. Will he act on his own behalf, or on behalf of the community? This can arise in situations where a member of the community allegedly

owning the IK sues an outside person who violated such a right. It might also arise where a member of community sues another member of the community who violates the right. Under the non-indigenous system, this might create some legal puzzles.

Who is entitled to the royalties?

Because of the fact that IK is usually owned by the community, it may become a challenge where an individual has developed something for commercial purposes, using existing IK. Can the person get individual protection for the product? Equally, can the person exclude others from using the work? The non-indigenous IP system operates on the basis of an either/or dilemma. You either get protection or you get excluded. Can the new owners of vuvuzela products exclude others from using same? Equally, can the community exclude the new owners from using same?

IP and the problem of moral relativism

In intellectual property law, moral questions can arise in a variety of contexts. One of the contexts can be in the form of what copyright law refers to as moral rights i.e the rights of authors not to have their work distorted. For example, s20(1) of the Copyright Act, 1978 gives the author of a copyright work the right to object to any form of distortion, mutilation or any other form of modification of the work, where the action would be prejudicial to the honour or reputation of the author, except where this is necessary. Any violation of the moral rights is deemed to be a violation of the copyright (s20(2) of the Copyright Act). In the context of protection of IK, this may pose a moral challenge, as it may not be clear under what circumstances a person who uses IK to develop something new, may be said to have distorted the work. Will modifications to suit modern challenges be a violation of the provision? This might not be an easy question to resolve.

The other context where moral issues can arise can be in the context of morality as generally understood i.e the work should not offend moral values. Part of this could be as provided for under s25(4)(a) of the Patents Act. It provides that patents cannot be granted for an invention whose publication or exploitation is expected to encourage offensive or immoral behaviour. In the latter case, it might also arise where a problem might arise where there are different perceptions of morality, amongst different cultures. This might make protecting IK through the IP system a challenge.

The above challenges do not however mean that there are no strengths associated with the current IP system. Some of the strengths are associated with more clarity and certainty, as most of it is written down. This makes it easy to know what the exact legal position is, and what it has been, and perhaps likely to be in future.

THE CURRENT SOUTH AFRICAN POLICY ON IKS

In 2004, the South Africa government adopted a policy on Indigenous Knowledge System, herein referred to as the IKS policy. Its purpose is to recognize, promote, develop, protect and affirm IKS (IKS 2004: 6). One of the critical issues behind the policy is the creation of a formal system to record IK (IKS policy 2004: 11). Different departments were identified to drive different aspects of the policy, including the affirmation of African values in the face of globalization, practical measures for the development provided by IK holders, and underpinning the contribution of IK to the economy (IKS Policy 2004: 11).

The policy also aims at integrating IKS within the national systems of innovation and education, and research. It also makes provision for the involvement of women, traditional leaders, and the private sector in the development and management of IKS. The policy further creates institutional arrangement for the development and protection of IKS. It provides, amongst other things, for the establishment of the National Office on IKS, the Advisory Committee on IKS, and support mechanisms for the establishment of IKS centres and laboratories. The policy also calls for the protection of IKS through sui generis legislation (IKS policy 2004: 28). Given that the policy proposes inclusion of IK into the curriculum, as well as research, this will change the whole education and research agenda. Change of curriculum might mean that there might be new qualifications built around IK. New research niche areas built around this might also be developed. The above represents some positive aspects about the policy.

The policy however does not deal with the need to change the philosophical framework around the current IP legislations. The possible effects of the policy will well depend on how it will be implemented. In the area of patents, a law has been passed already i.e the Patents Amendments Act, 2005, providing for the acknowledgement of use of IK in the work for which protection is applied for. The legislation does not deal with the general philosophical dimension of the IP system, whose characteristics are identified in the discussion above. This makes the legislative amendments defective, whose defects are also a negative reflection on the IKS policy itself, as the legislation was enacted so as to give effect to the policy. This calls for further revision of the legislation, with a more detailed inclusion of IK framework into it. Some of the weaknesses raised in respect of both the Patents Amendment Act and the IKS policy can also be found in the case of the Intellectual Property Laws Amendment Bill, 2008 (covering other works of intellectual property than patents) which, though not yet law, seeks to incorporate traditional knowledge into the current IP system. Though the proposed law makes a lot of reference to traditional work, it does not appear that such a proposed law will radically change the philosophy of the current intellectual property system (However, a detailed analysis of such a Bill is not part of the paper here).

It should again here be emphasized that the weaknesses of the IK policy cannot be looked into in isolation from those of the IP policy, which was also meant to give effect to the IKS policy, to a certain extent.

The possible mechanisms to be used to beneficate others under the current IP system

Despite the shortcomings of the current IP system, is there existing mechanism within the system, that can be used to beneficate indigenous communities? The following can be the possible mechanisms:

Licensing system

Communities can license their rights to IK to another person or communities. They will in return receive some royalties.

Through assignments

Communities can, by way of assignments, transfer their rights to other persons or communities. Though this is very unlikely (in the case of transfer to an individual), it is possible within the system.

Through voluntary surrender

Though this is an unlikely process, it should be possible for one community to surrender its rights to another community. It is very unlikely that the surrender can be to an individual, given that the philosophy of IK is one of communalism (but it should be possible if the IP system is used).

In all the above mechanisms, the challenges associated with the protection of IK through the IP system will still exist. For example, there might be a problem as to who must give consent in all the three instances.

CONCLUSION

In conclusion, the paper has been able to reflect on the structure and philosophy of the current intellectual property framework, its shortcomings and some strengths. The foreign and international position has also been briefly reflected on, where the paper argues that some lessons be drawn from there, though not necessarily adopting any position from it. The discussion has also reflected on both the IKS policy, and the IP Policy. Overall, the following recommendations are made: The decommercialization of the criteria for the protection of IP, broadening the scope of protection of IP, broadening mechanism for protection e.g through the creation of

alternative dispute resolution mechanism, infusing indigenous values into the IP protection (with less technicalities and more holistic view). This framework should also be built into the current legislation. Both the IKS policy and any framework created out of this should be revised.

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LEADERSHIP CHALLENGES IN THE GLOBAL MARKET FOR CORPORATE CONTROL

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ABSTRACT

Mergers and acquisitions worldwide represent the global market for corporate control in which contests occur for the ownership of corporations, whether within or across national boundaries. Contests for corporate control can occur in part because of perceived or actual deficiencies in the current leadership of a company. CEOs face many challenges as corporate leaders, including not only how to guide their firms through varied economic and competitive conditions in a burgeoning global marketplace, but also how to initiate or respond to an offer for a merger or acquisition, whether friendly or hostile. In this paper we explore the top leadership function in mergers and acquisitions by examining (1) the international background to contests for corporate control, (2) the challenges for corporate leadership in the mergers and acquisitions context, and (3) the specific roles played by CEOs in the implementation of the transactions.

THE GLOBAL MERGERS AND ACQUISITIONS SETTING

Worldwide traffic in mergers and acquisitions (M&A) totaled over USD12 trillion in the last century (Selden and Colvin 2003; FactSet Mergerstat 2004), with the present millennium already accounting for more than USD8 trillion in corporate assets exchanged in interfirm combinations (FactSet Mergerstat 2010). The financial prominence of M&A events coupled with their impact on the shareholders and stakeholders of the transacting firms make the global market for corporate control a potent setting for the exploration of leadership concerns.

Despite repeated new heights in merger incidence and valuation, analyses from many years of dealmaking have demonstrated that intercorporate combinations on average fail to create value for the acquiring firm shareholders (Dewing 1921; Jensen and Ruback 1983; King, Dalton, Daily and Covin 2004). Although certain types of deals—such as those involving smaller acquiring firms (Moeller, Schlingemann and Stulz 2004), acquiring and target firms in the same industry (Morck, Shleifer and Vishny 1990), acquisitions of private firms or subsidiaries (Fuller, Netter and Stegemoller 2002), predominantly cash financing (Linn and Switzer 2001), or low premiums (Sirower 1997)—have historically generated higher acquirer returns, M&A transactions overall have yielded net wealth gains only because the typically positive target shareholder returns have outweighed the typically negative acquiring shareholder returns. Performance outcomes do not overall vary with the choice of metric. Whether assessed by divestiture rates, operating cash flows, acquirer stock price returns (Agrawal, Jaffe and Mandelker 1992; Kaplan and Weisbach 1992; Agrawal and Jaffe 2000), by innovation capability (Kapoor and Lim 2007), or by a cultural compatibility index (Stahl and Voigt 2008), most mergers do not succeed. Usually the acquiring firm shareholders would have experienced superior gains if the free cash funneled into M&A deals had been diverted into paying down debt, buying back stock, or issuing dividends (Blanchard, Lopez-de-Silanes and Shleifer 1994), or if the acquiring shareholders as individual investors had purchased units of the comparable investment index in the designated timeframe (Henry 2002). In this heated strategic context, leadership becomes of key importance.

Mergers and Acquisitions from the CEO Perspective

Given their sustained lackluster performance, why do mergers and acquisitions remain a popular strategic maneuver? Numerous motives have been determined over the decades, spanning a range of factors endogenous and exogenous to the firm. These factors notably include risk reduction, labor contracts, tax savings, monopoly power, and empire building (Mueller 1969; Steiner 1975; Firth 1980; Amihud and Lev 1981; Ravenscraft 1987; Roll 1988; Trautwein 1990). We focus on the latter factor as germane to many CEOs. Pursuant to the desire for empire building—expanding a company in order to expand the leadership sphere of power, influence and control—the “hubris hypothesis” (Roll 1986) relates to CEO self-esteem and outcome expectancies. Research into hubris (overconfidence) suggests that CEOs suffering from exaggerated self-assurance enact mergers and acquisitions in the mistaken belief that they will be successful where most others have failed (e.g., Roll 1986; Hietala, Kaplan and Robinson 2003; Malmendier and Tate 2005). The more overconfident CEOs are, the more they tend to enter into M&A deals and the higher the premiums they tend to pay (Hayward and Hambrick 1997; Billett and Qian 2008). Neither the quantity nor the pricing of such risky deals is necessarily in the best interests of shareowners. Yet excessive risk aversion may imply a strategic timidity equally detrimental to shareholders as potentially lucrative combinatorial opportunities are forgone.

Mergers and acquisitions are a sometimes coercive, sometimes cooperative maneuver in the market for corporate control—that is, the right to hire, fire, and determine compensation in a firm (Manne 1965). These prerogatives are the fundamental control rights associated with corporate governance and the CEO. As already noted, most mergers between large, publicly-traded corporations can be deemed failures on multiple dimensions of evidence. Despite the difficulties, mergers do provide the opportunity for enhancing corporate capabilities and optimizing resource allocation (Haspeslagh and Jemison 1991). A fundamental challenge for the CEO as merger leader is to maximize the advantages while minimizing the disruptions of these transactions (Balmaceda 2009). Research on major mergers in the international financial services, computer software and services, oil and gas, telecommunications, and utilities industries has identified three phases in the leadership of acquiring and target CEOs from merger formulation through implementation: (1) making the merger, (2) placing or displacing people, and (3) fulfilling the strategic vision (Park 2010). The three roles exemplify the multifaceted function of the CEO and the capacity for influence in that position.

The Importance of Top Executive Leadership

Beginning with the work of Barnard (1938) on the functions of the executive, reinforced two decades later by March and Simon (1958) on the influence of the dominant coalition of executives, the proponents of substantive leadership have argued that senior managers matter. Cyert and March (1963) elucidated the importance of managers for confronting ambiguity and making decisions in the context of bounded rationality. Child (1972) emphasized that strategic choice rather than reflexive conformance to seeming economic inevitabilities would influence the fate of the firm. Hambrick and Mason (1984) in their upper echelons theory extended the leadership purview from the chief executive to the entire top management team, as complemented by the work of Gupta (1984) on strategy-manager contingency linkages. In comparison, assertions of romanticized or inconsequential symbolic senior management have also arisen (Lieberson and O'Connor 1972; Pfeffer 1977, 1981; Meindl, Ehrlich and Dukerich 1985) and linger in persistent doubts regarding the efficacy of executive action.

While some management scientists have asserted the salience of top managers as powerful insiders (March 1962; Cyert and March 1963; Allison 1984), other organizational scholars have proposed the parallel impact of influential outsiders such as bankers, customers and suppliers (Meyer and Rowan 1977; Pfeffer and Salancik 1978). The outsiders' influence means that underperforming top managers can become vulnerable to the market for corporate control—that is, to having their firms taken over and themselves replaced. The market for corporate control is an external control mechanism fueled by international financiers, arbitrageurs and acquisitive, expansion-minded CEOs (Jensen 1984; Shleifer and Vishny 2003). Since the 1980s in particular, the pool of talented executives and the access to capital markets have grown beyond national borders, facilitating the rise of the modern global market for corporate control. Large corporations have become increasingly multinational, and likewise CEOs nowadays have migrated from a range of regions and continents—Europe, Asia, Africa, the Middle East, Latin America and the US—to occupy top level executive positions around the world.

CEOS IN MERGERS AND ACQUISITIONS

The leadership exercised by acquiring and target CEOs in forging mergers and acquisitions relates to the comprehensive responsibilities of the top position. The CEO role is one of overarching vision and responsibility for the firm. The existence and need for the CEO are intimately tied to the existence and need for the corporation. As a structure distinct from the market, the firm represents a means of organizing economic activity within the infrastructure of global capitalism (Williamson 1981). A key feature of the modern corporation has become the fundamental separation of ownership and control such that the vast majority of public firms are run by professional managers whose primary responsibility is to increase shareholder wealth (Berle and Means 1932). Even the largest shareholders of large modern corporations still usually own less than five percent of the total shares. Alongside this outright or optional possession of a fraction of a large corporation's shares, the modern CEO has as his or her primary responsibility the survival of the corporation and the maximization of shareholder value.

CEOs may experience that their concerns as managers rival their concerns as shareowners. Mergers and acquisitions tend to depress the acquiring firm stock price while enhancing managerial continuance or severance compensation. Past research has emphasized how additional equity disbursements to managers (Jensen and Meckling 1976), efficient labor and capital markets (Fama 1980), and boards of directors (Fama and Jensen 1983) constrain managerial opportunism. The ownership structure, market efficiency, and board factors discourage selfish behavior by better aligning managerial and ownership interests or by providing monitoring information to the internal (board of directors) or external (M&A market) instruments of control (Walsh and Seward 1990).

The CEO has simultaneous accountability for both short-term financial goals and long-range strategic plans. Fundamentally the CEO must improve not only the present performance of the organization but also the ongoing capability of the organization to perform. This increased capacity to perform may occur through introducing new products, expanding market share, and developing or deploying supportive technologies (Mintzberg 1978; Gartner Inc 2010). A merger or acquisition raises the stakes by mandating the financial discipline of increased leverage (Harford, Klasa and Walcott 2009), imposing the need to profit against a high premium (Bodolica and Spraggon 2009), or simply increasing scrutiny from the marketplace due to a highly publicized transaction (Vaara, Tienari, Piekkari and Säänti 2005).

We next summarize the three central roles—(1) making the mergers, (2) placing and displacing people, and (3) fulfilling the strategic vision—for acquiring and target CEOs in major mergers and acquisitions.

Making the Merger

Large mergers are attention-grabbing events conducted in a well-publicized sequence of steps from announcement to closing. Making the merger concerns the managerial pride, purpose, and philosophy driving the transactions. Major initial issues typically discussed beforehand (although certainly subject to change) include pricing, presenting and naming the transaction; deciding whether there will be a premium and if so, how much of a premium; determining whether the deal be presented more as a merger or an acquisition (or even as a hostile takeover); deciding on the name of the combined entity. Other important issues to consider include the leadership, mission and location of the combined firm.

Mergers can enable firms quickly to expand globally. CEOs may seek to strengthen the presence of the firm in established markets or to gain footholds in entirely new markets. In addition to the benefits of achieving greater size or entering new markets, CEOs may desire to overhaul the staffing pyramid and to update the physical and operational infrastructure of the firm. Mergers also enable firms to acquire new technologies outright or to increase R&D budgets for developing new technologies in house. Some mergers have been primarily defensive (as in the auto industry since the 2008 downturn of the economy); others have served as preemptive strikes to fortify firms against rapid environmental change (as in the telecommunications or biotechnology industries); still others have resulted from acceptances to unexpected overtures (as in buyouts in the high technology sector).

These various factors in making the merger set the stage for the fate of the senior management as well as other organizational members.

Placing and Displacing People

Executive turnover on the target side tends to be swift and substantial after mergers and acquisitions, averaging 60 percent total in the five years immediately following the deals (e.g., Hambrick & Cannella, 1993; Hayes & Hoag, 1974; Walsh, 1988). Planning the new top management team from among those who remain invokes not only power struggles but also questions of succession. Mergers disrupt the previous succession planning of the target CEO and the ambitions of target senior managers. Friendly mergers without large employment loss ironically complicate the identification of succession candidates by enlarging the executive talent pool and altering organizational dynamics. After an expansion merger, additional executive aspirants occupy the modified corporate landscape, and the revised strategy and structure of the firm may demand different leadership skills.

Mergers affect people throughout the organization, and concern over the preservation or elimination of jobs extends beyond the executive suite. If CEOs do not express and abide by guiding principles for determining employment outcomes, difficulties arise in maintaining the workforce psychological equilibrium and containing widespread fears of job or status loss.

For whoever remains in the executive suite, whether temporarily or indefinitely, the responsibility arises for implementing the strategic vision behind the merger and for determining future directions as well.

Fulfilling the Strategic Vision

The first one to two years after a merger or acquisition are especially important for blending systems, staking priorities, and launching new directives. The time required for integration depends on the size and reach of the new firm and the similarity or complementarity of the merging lines of the business. Different divisions may acclimate at different rates, and the CEO must be alert for outbreaks of discord across divisions. It is also important to consider the degree of integration desired for the deal. Merger suggests thorough combination, while an acquisition may be appended as a distinct subsidiary.

Day-to-day integration activities must occur in tandem with more dramatic steps for fulfilling the strategic vision that inspired the merger in the first place. Large mergers and acquisitions typically aim both to improve efficiency and to expand the international product-market reach (Park and Vamberg 2010). Overall the desire to create a new and better firm emerges as one of the most essential and profound reasons for merging.

More specifically as a result of merging, CEOs have achieved economies of scale (for instance in technological infrastructure), expanded research and development, renovated legacy systems, reduced operating expenses, received deeper discounts from suppliers, and moved into positions of market leadership. In addition to the iterative comparison-and-selection process among existing options, the merger affords the opportunity to make entirely new choices. Mergers can be a plausible and deliberate excuse for revising anything and everything—as for instance, when French firm Société Générale became renamed Vivendi and attempted in the late 1990s to morph from a water supply company into a global telecommunications and entertainment giant via the acquisition of Seagrams and other related companies.

DISCUSSION AND IMPLICATIONS

Considerable research in the management sciences has addressed *either* mergers and acquisitions *or* the functions of top managers. Substantially less scholarly attention has been devoted to leadership perspectives on mergers and acquisitions. CEO leadership in the merger process merits consideration because of the importance of chief executives to strategic decision making at the firm level and the importance of mergers and acquisitions as strategic maneuvers for reconfiguring firms in a competitive global landscape. In a world of unpredictable markets and volatile economic conditions, executives routinely confront organizational turbulence and

organizations periodically face environmental adjustments. This paper represents a starting point and an overview for considering leadership challenges in the global market for corporate control.

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DEFICIENCY NEEDS OF ENGINEERING STUDENTS: AN INVESTIGATION OF THEIR INFLUENCE ON ACADEMIC SUCCESS AND SUBSEQUENT GOVERNMENT GRANTS

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ABSTRACT

Maslow's hierarchy of needs is divided into two levels, being the lower levels called deficiency needs and the higher levels called growth needs. The lower levels (health, safety, belonging and esteem) represent the basic human needs for physical well-being. These needs must be partially satisfied before a person can be motivated to pursue satisfaction of the higher levels where a person fulfils his or her personal potential. This human potential coupled with motivation are essential to any organization aiming to increase its productivity. However, are students motivated at university to achieve academic success and therefore more prepared to exhibit motivation in their industrialized workplace? This paper aims to establish if final year engineering students are indeed motivated to achieve academic success by determining if their deficiency needs have been satisfied. This study involves a design module termed Design Projects III, where the empirical study incorporated an ex-post facto study involving a pre-experimental/exploratory design using descriptive statistics. The results of this study were applied to various tests which indicate a statistically significant relationship between satisfaction of deficiency needs and the academic achievement of African engineering students. This in turn impacts positively on the Government grants received by institutions of higher education in South Africa. It is recommended that institutions of Higher Education embark on a more aggressive awareness campaign encouraging students to satisfy their deficiency needs. This will subsequently lead students to the higher levels of Maslow's hierarchy, resulting in self-actualization and personal satisfaction as academic success is achieved.

INTRODUCTION

“There is a sufficiency in the world for man's need but not for man's greed” according to Mahatma Gandhi. However, there are times when man's needs are not even sufficiently met due to political unrest, economic recession or natural disaster. Some of the basic human needs include food, housing, safe drinking water, health care and the like (Arman et al. 2009). These needs form the lower levels of Maslow's Hierarchy of needs which must be partially satisfied before a person can be motivated to pursue satisfaction of the higher levels representing self-actualization (Zalenski and Raspa 2006; Litwack 2007). Self-actualization means that individuals have a positive attitude towards themselves and others, to have self acceptance, to be honest to themselves and others, to have environmental sensitivity, to be open to innovation and to be creative (Asilioglu 2008). In other words motivation results due to satisfaction of the lower levels of Maslow's Hierarchy which are referred to as “deficiency needs” (D-N).

Numerous research articles have identified the importance of motivation in attitudes towards work and in performance (Bredillet et al. 2007; Chandler et al. 2009). Motivation is subsequently vital to the success and sustainability of industrialized organizations and educational institutions. However, are students motivated during their educational studies and therefore more likely to be motivated during their early industrial career? This paper aims to establish if students in higher education (HE) are motivated by determining if they are satisfying their D-N. Additionally it aims to establish if a correlation exists between satisfaction of D-N and academic achievement of students, which impact on Government grants awarded in South Africa (SA).

The throughput rate (T-r) of a module or course is a good indication of student academic achievement (Swart et al. 2010). The Department of Education (DoE) in SA (2004) defines T-r as the number of students who are enrolled for a module, course or subject in HE compared to the number of students who complete that same module, course or subject within a given semester or year, expressed as a percentage. T-r is seldom equal to, but often lower than, the pass rate and takes into account the number of students who drop out of the module, course or subject. The national T-r in SA for students in HE was found to be only 15% in recent years (Strydom et al. 2010). This means that only 15 out of every 100 enrolled students in HE successfully completed their qualification within the allotted time. Currently the funding policy by the DoE (2006) in SA states that graduation benchmarks for contact programmes should be at least 22.5%. This means that if the T-r remains at 15%, then a 7.5% shortfall results which leads to unallocated grants from budgeted funds. These unallocated funds are vital to the sustainability of institutions in HE and therefore serve as a motivation for management to search for new ways to improve the current low T-r. This is one implication of the funding policy. Another implication could be a lowering of the current level of services and quality, as revenue declines and costs associated with increased demand and operations increase. Other implications may be a decline in institutional collaboration, in training higher educational leaders and in managing technology.

It must be emphasized that this is an exploratory study that has the purpose of gaining insight into the relationship between D-N and the T-r of engineering students at a university of technology (Vaal University of Technology or VUT). An exploratory study usually involves only a single group of respondents, having the advantages of practicality and setting the stage for future research (De Vos et al. 2005). First, authoritative literature pertaining to the four lower levels of Maslow's Hierarchy is discussed with a view to defining the D-N of engineering students at VUT. Reasons for choosing the instructional module, entitled Design Projects III (DES3), for this research is presented next. The empirical study is introduced with the results depicted in a series of tables indicating a statistically significant relationship between D-N and the final individual grades of enrolled students.

DEFICIENCY NEEDS

Maslow's hierarchy of needs is divided into two levels, being the lower levels called D-N and the higher levels called *growth needs* (B-N) (Zalenski and Raspa 2006; Litwack 2007). The lower levels represent the basic human needs for physical well-being which may have a direct bearing on the academic achievement of students. This relationship is discussed below by considering each of the four lower levels consecutively.

Physiological needs

Physiological needs refer to aspects that are important in contributing to good health in humans such as food, drink, shelter and relief from pain (Litwack 2007). A healthy routine may involve eating a daily breakfast and engaging in regular exercise (Hamilton 2003). A proper diet and nutrition can play an important role in helping students to pass their examination successfully, while sufficient supplies of glucose can help the brain to think clearly (Hamilton 2003). A lack of sleep is also associated with academic problems (Dawson 2005) as young adults need to get at least eight hours of sleep per night to ensure successful learning (Cottrell 2003). Student performances may further be linked to their studying environment. Students must evaluate their study environment with regard to lighting, music, filing systems, outside noises and inside disturbances (Van Blerkom 2003). Disturbances may also result in violence which can impact negatively on the safety of students.

Safety

The need for safety includes the needs for structure, order, security and predictability (Litwack 2007) and the need for freedom of fear, anxiety and chaos (Zalenski and Raspa 2006). Students' personal as well as academic development appears to be intricately linked both with how they perceive and how they interact with their learning environments (Cress 2008). Women who are exposed to violence find it especially difficult to complete courses they begin and to learn successfully (Horsman 2006). There is also considerable evidence that students' exposure to violence is associated with both antisocial behavior and psychological trauma (depression, anxiety, anger and post-traumatic stress disorder) (Flannery and Quinn-Leering 2000). Unsafe learning environments are

thus negative aspects that influence the behavior and academic performance of students. Conversely, a positive aspect which may lead to improved academic achievement is a sense of belonging.

Belonging

Students need to have a sense of belonging in order for motivation to occur and to achieve academic success (Stewart 2008). This sense of belonging includes friends and companions, family, identification within a group and an intimate relationship (Litwack 2007). Students often find themselves studying together or completing assignments as part of a group which requires that all students share all, or at least most, of the course content. Cooperative learning is a well documented pedagogical practice that promotes academic achievement and socialization (Gillies and Boyle 2010). Effective functioning within a group is a positive aspect that contributes to a student's sense of belonging. Functioning well in a group also indicates a measure of self-esteem.

Esteem

The fourth level of Maslow's hierarchy requires recognition of people that results in feelings of prestige, acceptance, status and self-esteem. This subsequently produces feelings of adequacy, competency and confidence (Litwack 2007). However, some students often put themselves down when they do not complete their tasks successfully, even expressing the thought that they are not smart enough (Van Blerkom 2003). This in turn leads to a lack of self-esteem which may be linked to the theory of self-efficacy – confidence in the ability to perform tasks that are deemed necessary to achieve success (Hutchison et al. 2008). This belief is correlated to achievement-related behaviors such as achievement performance, motivation and self-worth (Seifert 2004). Self-efficacy theory defines four sources from which efficacy beliefs are developed: mastery experiences (interpretation of one's performances on particular tasks), vicarious experiences (comparison of personal abilities to the perceived abilities of others), social experiences (feedback received from others) and physiological states (emotions, such as enjoyment or anxiety, associated with actions). Self-efficacy, and subsequently self-esteem, may therefore result when individuals benefit from the support of others and find enjoyment in the task at hand.

The preceding sections have discussed the four lower levels of Maslow's hierarchy of needs and have indicated their relationship to academic achievement. Questions relating to this literature review were used to compile a questionnaire which was completed by students enrolled for the instructional module DES3.

STRUCTURE AND ASSESSMENT OF DESIGN PROJECTS III

DES3 is a compulsory offering or module for the National Diploma: Engineering: Electrical qualification (Swart et al. 2010). This module is offered during the final semester of the diploma course and encourages students to apply their previously acquired knowledge in the design and construction of an electronic project. Some of these projects focus on renewable energy, microcontroller applications and radio-frequency circuits. This enables students to exercise engineering judgment and apply it to a practical problem (Ibrahim 2004). DES3 further incorporates group work where between two and five students work together on a project through a semester (duration of approximately 14 weeks). Working in a group affords students the opportunity to check their progress (Ekwaro-Osire 2003), grow cognitively (Kolari and Savander-Ranne 2004) and promote cooperative learning (Verner and Ahlgren 2004). Students are afforded the opportunity to select their own group members, from among whom a group leader is chosen to serve as the co-ordinator of the project.

A series of written reports (based on the structure of a postgraduate dissertation) about the project must be submitted at prescribed times and dates during the semester. This assists students to become active learners as they encompass the acquisition of procedural (process), conditional (context), and content knowledge (Dewing 2010). Formative assessment is used and the reports are returned to the students with appropriate verbal and textual feedback. This gives students the opportunity to evaluate their progress (Crisp 2007) and rectify any inaccuracies which exist. They must then resubmit the modified reports for a final summative assessment at the end of the semester. However, the lecturer remains available during prescribed consultation hours to assist with any further student enquiries regarding the submitted reports. This encourages students to seek information on

their own, exploring new ideas and concepts (Ekwaro-Osire 2003). One such concept which students and academic lectures need to explore at times is an appropriate research methodology.

RESEARCH METHODOLOGY USED IN THIS RESEARCH

The research, on which this paper is based, incorporated an ex-post facto study involving a pre-experimental/exploratory design using descriptive statistics. The ex-post facto study provides the means by which the researcher can examine how specific independent variables affect the dependent variable of interest (Leedy and Ormrod 2005). The purpose of exploratory studies is to gain insight into a situation, phenomenon, community or person (McNeill and Chapman 2005). In the current research, the independent variable is the D-N of students, while the dependent variable of interest is T-r (representing academic achievement). The purpose of this empirical study was to gain insight into the lives of students in terms of their D-N. Descriptive statistics, involving a correlation test, was then used to ascertain whether a statistically significant relationship exists between D-N and the final individual grades of the respondents, which influence the final T-r of the module. Descriptive statistics, rather than inferential statistics, was used in this ex-post facto study because the collected data was only interpreted with regard to a sample of the target population.

The target population was restricted to engineering students enrolled for the module DES3 at VUT. Not all of these students could be included in the research as some were not regularly on campus due to employment commitments or other responsibilities. This resulted in the selection of a non-probability sample as certain students had no chance at all of being included in the research (Welman et al. 2005). This sample encompassed students enrolled for the module during 2005 ($n = 47$) and 2008 ($n = 53$). The reason for obtaining a second data set in 2008 was to strengthen the empirical foundation of the study. The questionnaire was selected as the main measuring instrument as it involves mainly objective data and is also an inexpensive way of collecting data from a large group of respondents (De Vos et al. 2005). It was completed by mainly black students who were present for class during the week of report submission. The literature review provided the basis for formulating closed-ended questions which were used in order to simplify the quantitative analysis and interpretation of the results. The reliability of the measuring instrument was ensured through repeated measurements (De Vos et al. 2005; Welman et al. 2005). The test-retest reliability of the questionnaire was verified on two separate occasions.

QUANTITATIVE FINDINGS AND INTERPRETATIONS

The first measurement of the questionnaire (Test 1) was administered to 47 students in August 2005 and to 53 students in August 2008. This questionnaire was administered a second time (Test 2) three weeks after each of the first tests, but with a smaller sample size (for 2005 $n = 32$ and for 2008 $n = 48$). The reason for this was that fewer students were on hand during the class period to complete the questionnaire, as many were busy completing the course contents of other modules. These occasions corresponded to the prescribed submission dates of two of the three required reports for the module DES3. The home language of the respondents is shown in Figure 1, which highlights that the predominant language in 2005 was Tswana and in 2008 Zulu. Black male students comprised the majority of the respondents (71% in 2005 and 62% in 2008) while the average age of all the polled students was 23 (median and mode were both 22).

The questionnaire comprised 18 closed-ended questions which were based on the literature review for D-N. The results of Test 1 and 2 for 2005 and 2008 are shown in Figures 2 and 3 respectively. Two different statistical results were obtained from this data in the SPSS software package and are presented as follows:

- Regression analysis; quantifying the strength of the relationship between the 18 questions posed on D-N (x) and the individual grades of the respondents (y). This test involves the “Yes” and “No” answers to only the first test (Test 1) in 2005 and in 2008, as its sample sizes is larger than its counterpart (Test 2) in the respective data sets.
- Correlation between the number of questions answered “Yes” per student (out of 18) and the final individual grade of the same student; testing whether a statistically significant relationship exists between the variables.

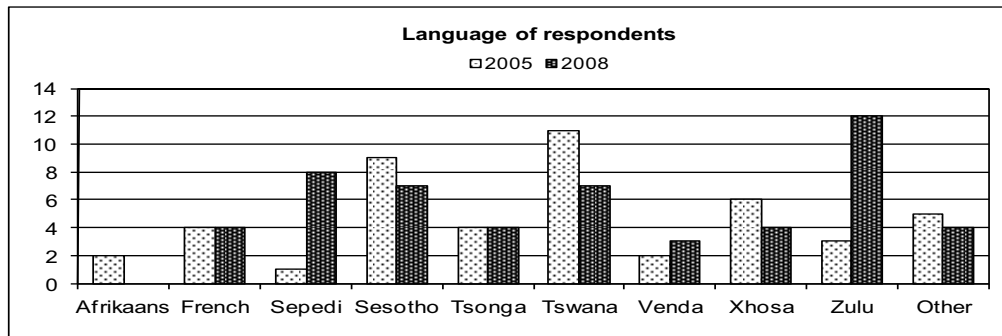


Figure 1: Home languages of the respondents enrolled for DES3 during 2005 and 2008

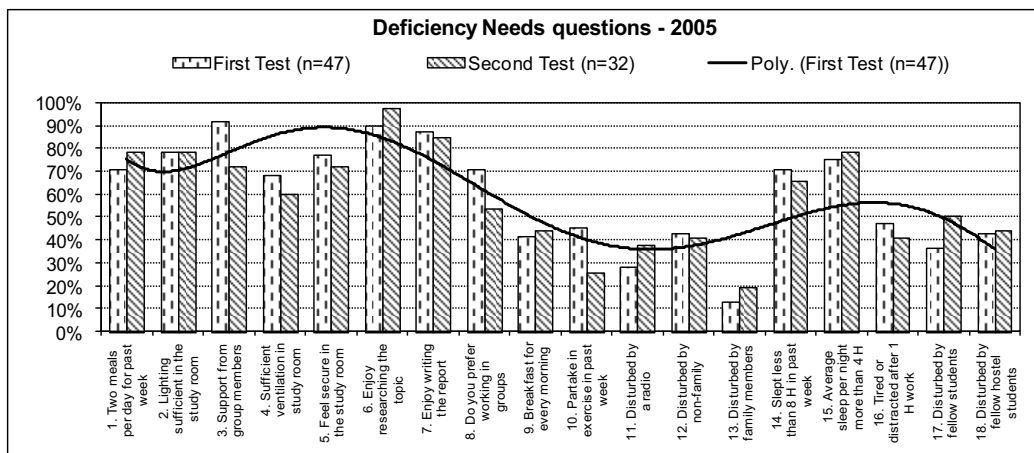


Figure 2: Questionnaire results for Test 1 and Test 2 obtained during 2005

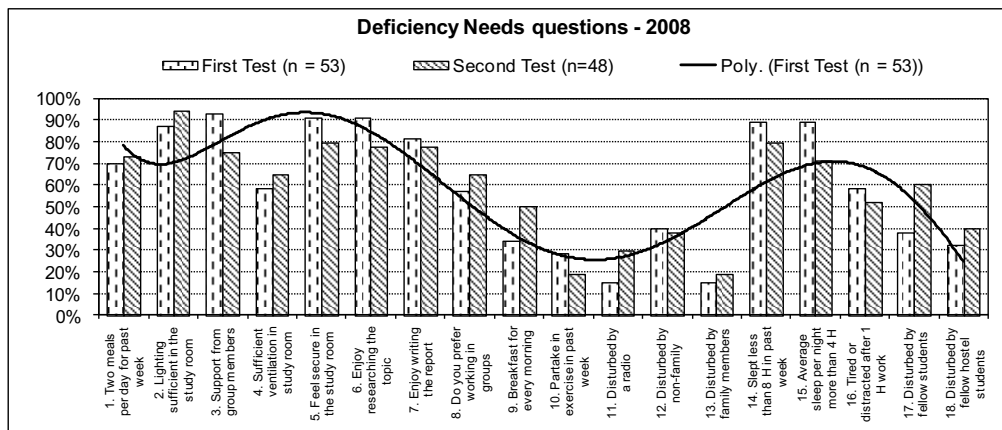


Figure 3: Questionnaire results for Test 1 and Test 2 obtained during 2008

It is noteworthy that the two graphs exhibit a similar tendency as indicated by the polynomial trend line. This suggests that respondents from two different calendar years exhibited similar D-N, especially with regard to satisfaction of their physiological and safety needs in terms of their study environment (questions 2, 4, 5, 11) and eating habits (questions 1 and 9). Students also seem to possess a measure of self-esteem as they enjoyed several aspects relating to the module (questions 3, 6-8). However aspects of concern include the disturbances caused by fellow students (questions 16 and 17), the apparent lack of exercise (question 10) and the high percentage of students (between 70 and 80%) who did not sleep more than eight hours per night during the week of report submission.

D-N: Regression analysis of all questions to individual grades

The results of the linear regression analysis (shown in Figure 4) are only presented for Test 1 due to its sample size being larger than Test 2 as fewer students completed the second test. The 2005 academic year's results are portrayed on the left while the 2008 academic year appears on the right. The questions posed in the questionnaire form the independent variable (x) while the final individual grades obtained by the respondents form the dependant variable (y). The linear regression line is skewed in both figures, indicating a statistically significant relationship between the questions on D-N and the final individual grades of the students.

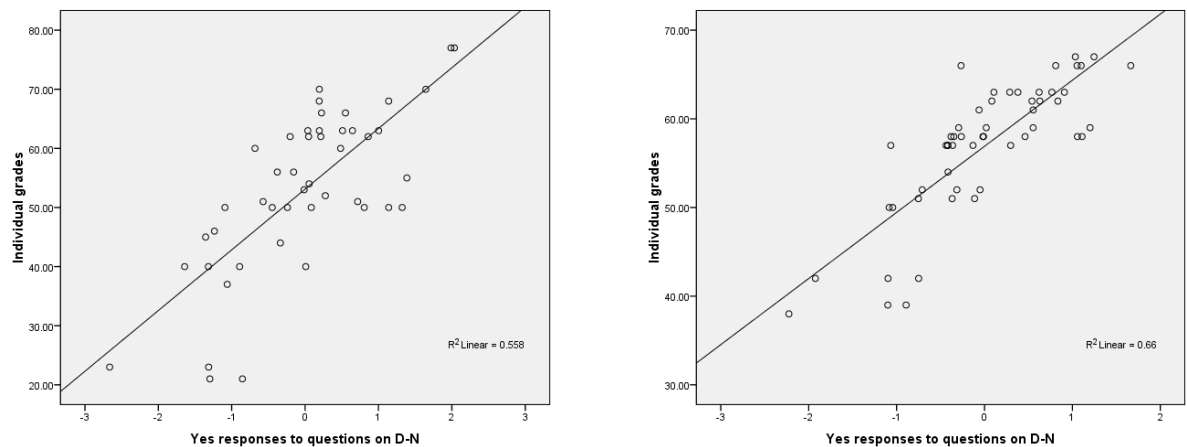


Figure 4: Linear regression analysis for Test 1 of 2005 (Left) and 2008 (Right) where the “Yes” and “No” answers were correlated to the individual grades of the respondents

D-N: Correlation of total “Yes” questions per student

The result of the correlation test for D-N to the final individual grades (which influences the final T-r which is also shown) of the respondents is shown in Table 1 for the 2005 and 2008 academic years. A statistically significant relationship was established which suggests that the D-N of students is indeed related to academic achievement and subsequently to T-r of the module.

Table1: Correlation between the questions of D-N and the final individual grades of students in DES3

Time period		Throughput	Measurement	Sample	Pearson r	Significance
Data set one	2005 - Aug.	75%	Test 1	n = 47	0.207*	0.081
	2005 - Sep.	75%	Test 2	n = 32	0.466***	0.004
Date set two	2008 - Aug.	89%	Test 1	n = 53	0.203*	0.073
	2008 - Sep.	89%	Test 2	n = 48	0.244**	0.047

* Correlation significant at 0.1 level; ** Correlation significant at 0.05 level; *** Correlation significant at 0.01 level

DISCUSSION AND CONCLUSIONS

The graphical results of the responses by the polled students from two different calendar years (Figures 2 and 3) revealed a similar tendency as indicated by the polynomial trend line. More than 50% of polled students from both academic years indicated that they prefer group work, which may contribute to a sense of belonging and self-esteem. This may well lead to academic success as students lean on each other for support, resulting in group members encouraging each other to submit their required reports on time. Most of the respondents in both tests also indicated that they enjoyed the research and writing of reports required for DES3. This joy may lead to

motivation and a measure of self-efficacy, being the belief that students are able to complete a given assignment within the allocated time frame. However, it is recommended that universities create more quiet studying environments for their students as a number of respondents (questions 16 and 17) indicated the presence of various disturbances. A statistically significant relationship was established between the 18 questions posed regarding D-N and the final individual grades of the respondents which resulted in a high T-r for both semesters. This indicates that satisfying D-N will lead to the higher levels of Maslow's hierarchy called B-N, where a student will achieve self-actualization and personal satisfaction. The repeatability of the questionnaire indicates a measure of reliability while the similar results point to a degree of criterion-related validity.

Institutions of HE that engage in aggressive awareness campaigns to encourage students to satisfy their D-N may reap higher T-r as students are more motivated to study and achieve academic success. This will result in higher teaching output grants from the DoE in SA. The provisional budget for HE for 2010/11 has been set at R19.9 billion, of which approximately 13% has been allocated for teaching output grants according to the Medium Term Expenditure Framework (MTEF)(Council on Higher Education 2009). This means that approximately R2.58 billion will be available for full allocation to institutions who achieve the graduation benchmark (or T-r) of 22.5%.

This study was limited to senior engineering students in a specific module at a University of Technology over a predefined period of time. Lengthening this time period and using a trend design may serve to further substantiate the findings of this study. Globally, however, all university students must be motivated in one way or another to successfully complete their educational studies in order to contribute to the international work force. The questionnaire developed in this study may therefore prove useful to highlight deficiencies in their basic human needs, which, when addressed, may lead to greater motivation and subsequent academic achievement.

The foregoing empirical results of this research revealed that D-N of students have a statistically significant relationship to their academic achievement (perceived by the final T-r) and subsequently on the teaching output grants from Government. This relationship between D-N and academic achievement will continue to have far-reaching effects not only on the success and sustainability of many institutions in HE, but also on those of industrialized organizations to which graduating students migrate.

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MANAGEMENT MODELS AND PRINCIPLES APPLIED TO HIGHER EDUCATION: A CONSTRUCTIVE OR CONVENIENT RELATIONSHIP?

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ABSTRACT

This paper explores the phenomenon of implementing management models (referring to for example risk management, strategic planning approaches, budgeting and funding mechanisms, quality assurance and general decision making structures and approaches) from business and industry within the context of an institution of higher education. The researcher analyses the types of management models found in higher education and compares the benefits and constraints of such approaches with the contextual realities within higher education and more particularly in a developing country. The paper highlights several critical conflicts and difficulties encountered in the application of management models in higher education.

BACKGROUND AND INTRODUCTION

Pratt (as cited in Lockwood & Davies, 1985) highlights the complex and changing social-environment of universities and states that universities face an external environment which is unstable and forever changing. Uncountable pressures stem from national circumstances that are interrelated, and a range of bodies exert these pressures. Not only are these pressures interrelated but they are sometimes conflicting and it is difficult to predict their consequences, which are mostly unforeseen and perhaps even undesirable.

The above paints a very sombre picture of the modern-day university management scenario, but in reality relates well to the actual experiences at universities in developing countries. The strong social and political agendas in developing contexts often dictate the educational policies and higher education then has to find a vision and determine its mission within that context. The application of incentive-based funding frameworks; performance management, project management, succession planning, risk management and continuity planning amongst others are examples of the implementation of accepted business and management approaches within universities. It should however not be accepted that the sector, by its very nature anchored in deep academic traditions of collegiality, sits comfortable with this trend or that it goes without resistance. This paper explores aspects of management and business applications within higher education and particularly also within the context of a developing country.

THE CONTEXT OF UNIVERSITY MANAGEMENT AND GOVERNANCE

A number of authors elaborate on the various management models that are considered typical within higher education (Lockwood & Davies, 1985; Morrow & King, 1998; Reeves & Baron, 1978). It is possible to cluster such models into main areas of approach namely:

- Economic model based on input-output analysis: focus on measurement of costs; production factors; cost and

value of output.

- Economic model with market orientation: focus on demand and supply principles; types and levels of markets.
- Bureaucratic model: institution is highly structured and organised, division of labour; hierarchical systems.
- Collegiality model: operates on shared ownership, plurality, managed by committee or guild.

To better understand these models and the interrelationship, Bargh, Scott and Smith (1996), compared them to layers at an archaeological-site with the collegiate layer the deepest and original layer and the bureaucratic and economic layers being more recent.

In effect South African universities have elements of all of the above models, with highly structured organisations (faculties), financial management and control systems with budgeting and reporting mechanisms, increased marketisation (for financial and socio-political reasons) and elements of ingrained collegiality (managing by committee and forum).

Underlying these theories about universities as organisations is the "open system theory" of Katz and Kahn (1966), who defined open systems as "systems which maintain themselves through constant commerce with their environment, i.e. a continuous inflow and outflow of energy through permeable boundaries". This definition, although dated, still very aptly describes the functioning of the modern university. The "constant commerce with the environment" is critical for the sustainable institution or system. What becomes important to manage, though, is the ability of the university to maintain equilibrium between input and output. This depends on the flexibility of its internal processes (financial, academic and administration). The latter relates directly to the internal management of the organisation. Against this background, it can be understood why political decision-making and rapid changes in educational policies, always place extreme pressure on university management and governance structures to keep the organisation functional and intact.

This experience is familiar to universities in most developed and developing countries as is documented about Europe by Sporn (2004), about the United Kingdom by Lockwood and Davies (1985), about Sweden and the United States by Sandison (1994), about Nigeria by Onwunli and Agho (2004), about the Middle East and North Africa by Akkari (2004).

Sporn (2004) took a critical look, from a university management perspective, at higher education reform in Europe and the actual impact on university management. She indicated that the reforms have triggered a new distribution of power and strengthened institutional leadership, and further highlights the neo-liberal, economical and management-orientated models that emerged as a result of the reforms in education in Europe. Davies (as cited in Lockwood and Davies, 1985) formulated six characteristics to describe the internal life of a university. He states that the more pressure a university experiences (labelled a phase of contraction) the more polarised, divided and self-serving the sub-units of the organisation become. As a consequence manageability decreases and decision-making becomes slow at a time where swift responses may be required.

For the author (a student development and support manager) it became relevant to be cognisant of the relationship between the government of the day and the institutional management and how that relationships impacts on the management and priorities of the University. It is of strategic importance to be critically aware of the institutional response and the management trends evolving within the institution. In order to manage financial needs and positioning within the institution it is important to respond accurately and appropriately to the specific management style and approach followed by institutional management at any given time.

Subtle dimensions of management in higher education that are specifically important from the student development and support perspective are discussed in the next section.

MANAGERIALISM IN HIGHER EDUCATION: ORGANISATIONAL VERSUS UNIVERSITY MANAGEMENT

The collegiate model, as described in the previous section, may be the generally preferred and default model for academics by nature of their work and academic tradition but is not necessarily the most effective model of governance in a phase of unfavourable economic conditions. Shared and committee-based decision-making may impede on the well-being of the university as a decline in resources and other factors lead academics to be defensive of their own disciplines at the cost of objective decisions.

This is a problem inherent to modern universities, namely the consistent conflict between disciplinary and institutional imperatives (Bargh, Scott and Smith, 1996). A fundamental conflict exists between professional authority (assigned to academics by peers based on knowledge and performance) and hierarchical authority (assigned by the organisational structure). As new management and business-orientated models are imposed on universities, ostensibly to secure better performance, monitor state funding and imperatives, account for output and results, academics find it increasingly difficult to sustain the collegial approach while submitting to organisational authority.

Becher and Kogan (1992) argued that the individual nature of knowledge generation is ill suited to the imposition of hierarchically distributed management objectives

In many circles the debate and resistance evolved into warning against impeding on academic autonomy. An example of this type of conflict manifested after the establishment of the Council for Academic Autonomy in the United Kingdom. The Council openly stated that it found the requirements of management for greater accountability in direct opposition to the requirements of professionals for greater autonomy. The supporters of executive management would argue that this approach will improve effective decision-making with the benefit of improving the academic environment and therefore supporting academic autonomy.

There is, of course, a subtle distinction between executive and commercial management that needs to be recognised here. Executive management is not necessarily as strictly market-orientated in approach and the dominant idea is that the executive management approach “provides clear roles for management and the accountable body”. In other words, management has the primary function to monitor and provide an enabling environment by setting objectives while the accountable body (academic discipline/ department/ division) is responsible to determine the content of such objectives (Lee & Piper, 1988).

THE UNIVERSITY MANAGEMENT SCENARIO IN A DEVELOPING COUNTRY

The South African university management approach is in fact dictated by the White Paper for Education - as was formulated by the National Commission for Higher Education (NCHE). The NCHE sets *co-operative governance* and *partnerships* as pillars of the new educational landscape. The White Paper envisaged that governance at the institutional level should become more democratic and participatory and dictated the establishment of “institutional forums” i.e. maintaining elements of collegiality. The dictates of the White Paper then also, although partly influenced by the larger social and political agenda attempted to enforce greater collegialism in an educational system where increased managerialism tended to dominate in the last decades.

According to the Council on Higher Education report on *Global Patterns, Local Issues*, Cloete and Kulali (2003) the Ministry should make an attempt to reconcile managerialism and cooperative governance. The report distinguished between three forms of institutional governance in South African higher education since 1994:

- Managerial leadership (subdivided between strategic managerialism and entrepreneurialism).
- Transformative leadership (sub-divided between reformed collegialism and transformative managerialism).
- Crisis management (or failed leadership).

The authors of the report regarded the middle category, namely *transformative leadership*, as the ideal within the context of a developing country. They point out though that very limited numbers of higher education institutions in South Africa meet that ideal.

In an analysis report that followed on the above, Cloete et al. (2003) described the dilemma in higher education in South Africa as follows:

Co-operative governance is a rather unique and ambitious, governance model that like the new constitution embodies the best ideals of the new democracy. But not unlike the new constitution, implementing the democratic principles has proved to be daunting and contested (p.426).

Onwunli and Agho (2004) reported on a study at the Federal University in Nigeria and the experiences of academics related to governance at their university. The finding is that the majority of academics experienced marginalisation in decision-making and are excluded from policy decisions in matters such as admissions criteria, selections, standards, human resources etc. Interestingly, the high ranked academics, who actually participated in decision-making, had the opposite experience. Onwunli and Agho (2004) recommend improved consultation in decision-making. This study suggests that, in Nigeria, the move towards managerialism has been drastic with little collegiality and participation in decision-making hence academics' negative experience.

For the author as a student development and support manager the importance of the managerialism versus leadership versus collegialism debate is that the manager needs to be acutely aware of the trend within an institution as it determines the strategic management, positioning, functioning, partnerships and financing of the function to be managed. The manager should be particularly aware of any threat of exclusion and sidelining in decision-making and implement creative strategies to counteract.

ACCOUNTABILITY, QUALITY ASSURANCE AND PERFORMANCE EVALUATION

Jones (1986) states that "the pursuit of quality assurance and accountability, leads to little more than a pseudo effectiveness and efficiency". In his opinion, it is at the interface in education where true quality can manifest while managerial systems cannot reach or quantify that action effectively.

In 2002 the Higher Education Quality Committee was established as the new mechanism for quality assurance for public and private providers of higher education in South Africa (HEQC, 2002). In industry, quality assurance aims are formulated to ensure zero defect and error reduction and prevention. There is an attempt to apply the same principles to public services (Strydom, 2001).

The founding document of the HEQC (CHE, 2004), states that the new regulatory framework for governing education makes quality central to the achievement of the goals of the NQF. The establishment of a national quality assurance system is seen as a critical component in the recent post-apartheid restructuring of the higher education landscape. The following statement appears in the founding document (CHE, 2004):

Quality is identified as one of the principles that should guide the transformation of higher education together with equity and redress, democratisation, development, effectiveness and efficiency, academic freedom, institutional autonomy and public accountability (p.1).

It may be deduced from the above statement that the quality assurance strategy for higher education in South Africa is not only implemented to address the quality of the academic project, but is also to be used as a mechanism to guide and enforce a broader agenda, namely that of transformation. Westerheijden (2000), a strong critic of quality assurance strategies in higher education, bluntly calls it a "euphemism for control by the funding bodies".

On the international front, various authors have commented on the implementation of quality assurance measures in education in general and higher education in particular. In the debate on why higher education should follow industry in implementing quality assurance measures there are many diverse perspectives according to Woodhouse (1996). He found that the dissent about quality assurance stems mostly from disagreement on the suitability of models imposed on higher education as they are all essentially adaptations from industrial quality

assurance models. Woodhouse felt that this situation distracts from the synergistic development of a sustainable model that would truly address capacity and productivity in higher education.

The critical issue seems to be that quality assurance leads to greater emphasis on matters of routine and less emphasis on traditional education matters of trust, authority and expertise, not even mentioning of application, innovation and creativity.

Morley (2003) asserted that peer assessors, quality officers and managers are often driven by paradoxical and contradictory aims, while, at the same time there is a democratising driver in quality assurance. Morley says that since they want a better deal for students - more information, product specification and risk reduction in a knowledge driven economy - therefore the values of a consumer driven society are now firmly embedded in higher education.

Quality assurance is firmly linked to a knowledge economy. Change in higher education is being driven, in part, by the needs of large trans-national companies, and related knowledge-based industries are being formed and nurtured. Boundaries between government, higher education and industry have been loosened and redefined, according to Morley (2003). Unfortunately this is where the paradox lies for higher education. While it is being funded by the state it is expected to meet the needs of the private sector economy. Universities are increasingly known and labelled as the producers of knowledge workers and employment rates are seen as a good *performance indicator*.

Economic and environmental changes have caused a move away from the traditional priority of acquiring knowledge and practicing it in a life-long career, to a priority of transferable skills, life-long learning and career changes. Morley (2003) stated that in such a process knowledge is diffused, configured and reconfigured when the market concept of best *value* has become pertinent. As institutions compete for student intakes, research opportunity, funding and positioning, the implementation of industry-related quality assurance principles has almost become essential.

After investigating the dilemma of quality assurance in higher education, Morley (2003) argued that quality assurance was located in the systematic discourse of modernism. There are clear elements of positivism as quality reviewers are claiming to uncover a single "truth" about the complexity of learning. According to Morley the the problem is that quality assurance provides little scope for interpretive pluralism.

Implementing quality assurance measures require the assumption that a university is first and foremost an organisation where performance can be observed (positivistic approach). This highlights the essence of the debate and the reason for resistance to industrial-type quality assurance mechanisms in higher education.

Organisations are regularly required to provide audit trails documenting how issues move through committee cycles to a point of satisfactory resolution. The concern is that the types of audits requested for quality assurance imply a linear rationality which completely overlooks micro-politics and creativity in the academic endeavour. Potential paradoxes that arise could be that, within a specific academic context (subject area or discipline), higher expectations and goals may elicit poorer scores. **The evidence based methodology is therefore in conflict with a post-modernist approach in academy.**

In 1998, Shore and Shelwyn (1998) embarked on an analysis of Scottish university documents prepared for students to evaluate courses. The study was done during a phase of transition and implementation of quality assurance measures at the university. Outcomes of the study revealed that nearly almost 60% of the evaluation form that was used was devoted to the evaluation of what was called "the lecturers style and skill", a small proportion to evaluation of what was called in this study "the actual content of the course". It is further critical to note, within the context of this study, that there are no items in these evaluation questionnaires were directed at issues of student learning and the learning experience nor did the analysis-report of Shore and Shelwyn attend to this aspect at all. The negation of the topic occurred despite the attention that these services receive in policy-making in the UK and current discourses.

CONTESTING THE CONCEPT OF THE STUDENT AS A CLIENT

In the South African context the student is increasingly positioned as the customer or client and customer satisfaction is isolated as one of the most important goals. The subsequent positioning of the student as a customer empowers the student and reinforces rights. To see the student as a customer sits easy with modern day student politics and democratic discourse. However, from an education and pedagogical perspective it also negates the transactional relationship between student and facilitator and the students' responsibility to also perform certain tasks, learning and assessment activities.

Bensimon (1995) saw it as no surprise that within the British higher education system, the radical student organisations enthusiastically support quality assurance and finds the greater emphasis on recognition of the individual customer or client so acceptable.

Within the context of student development and support it becomes a big challenge to the practitioner to engage the student as a partner in a transactional relationship, as opposed to the student being a customer. The relationship involves mutual responsibilities and input towards a satisfactory result for both parties. A paradigm of consumerism poses problems for effective application of student development and support within the institution as it impacts directly on the success achieved in the service offering.

ECONOMIC FACTORS AND INSTITUTIONAL FINANCES

Economic factors and institutional finances are generally seen as the driving force in implementing management approaches in educational contexts. Dennison (1984) made an analysis of the approach of educationalists towards financial matters within education. His analysis is mostly within the context of the British educational system but it is apparent how much relevance there is to the South African context.

According to Dennison educators, from all sectors of education and also specifically those in management and decision making positions tend to practice their profession in "non-cost" terms. By this he meant that major expenses are paid "elsewhere", e.g. in Britain, municipal accounts are covered by local authorities, books are provided by the Department of Education, salaries are provided by government. This implies that the actual financial implications of the daily services are distanced and the practitioners including higher education, are not thinking in terms of business principles.

In South Africa the scenario may have been very similar for the higher education sector, within public education during the pre-transition phase (pre 1994). Academics became increasingly aware of the resource management implications of their teaching activities, post 1994 and since the redistribution of educational funds despite the increased spending on education by government (Department of Education South Africa, 2001). The changes in educational funding, setting up of funding frameworks and establishment of new funding criteria, forced educators and managers to be increasingly aware of and move towards effectively managing aspects such as current and capital budgets, setting financial priorities, investigating funding options and opportunities and generally linking activities to financial implications.

The National Plan for Higher Education (Department of Education South Africa, 2001) unambiguously states the intention to steer the implementation of the goals of the plan through "a planning process with funding and an appropriate regulatory framework that will be the main levers". A report by the Centre for Higher Education Transformation (CHET) indicated that higher education institutions acquired (on average) 50% of its income from public funding. The system of governance required the institutions to be accountable for the use of public money and achieve demonstrable results in the public interest with it. CHET maintained that on the one hand the funding mechanisms provides the state with a way to fulfil its obligation to support higher education but on the other hand it provided government with a powerful instrument for steering the system in the direction of specific national policy goals and targets.

It is stated in the discussion document on the funding of public higher education, that funding will be planned and structured to address the transformation goals and the 1982/1983 funding framework is considered inadequate to this purpose. In a report on the Implications of changes in higher education (Centre for Higher Education Transformation, 2004) the pilot study group, mandated by CHET, highlighted that the subsidy formula was applied to both historically white (HWI) and historically black institutions (HBI) without a needs analysis to determine the needs of the historically black and disadvantaged institutions. The report also lists complicating factors such as the relatively low fees base at HBI; resistance from students to pay higher fees and increased demand for access.

SUMMARY AND CONCLUSIONS

Cheng et al. (2003) points out that the *direct effect* (or value) of education on economic and other developments, is very often and unfortunately not so obvious and tangible in the shorter term. It requires a long period for human development through education to show impact. This of course underlines the dilemma of higher education when measured and valued against principles of annual or regular returns

If the National Plan for Higher Education (Department of Education South Africa, 2001) then states a prime goal as “the increase human resource development” it must then also be recognised that the return (or according to Cheng “effect”) on the economy, of such an investment by higher education, could potentially only be determined after an extended period of time. Only after those who have been educated actively participated in the workplace and productive activities of the economy for some time, can the outcomes be converted to a productivity measurement.

Cheng et al. (2003) take an interesting position on the *indirect effects* of education on the economy. It is their view that education can also have an indirect effect on the technology of production, quality of human resources and the socio-economic behaviour of the society.

The cited views confirm that there are fundamental changes in the macro-environment that has to be pro-actively addressed by University management. The reflexive response is often to implement proven models and approaches within management geared to achieve measurable result and return on investment.

The changes in educational funding, setting up of funding frameworks and establishment of new funding criteria, forced educators and managers to be increasingly aware of and move towards effectively managing aspects such as current and capital budgets, setting financial priorities, investigating funding options and opportunities and generally linking activities to financial implications.

In a defining statement, National Government in SA declared their approach by positioning the funding framework as a “steering mechanism”. It is a given then that national and specifically transformational goals will be directed by this most critical aspect, i.e. state funding of the public institutions.

South Africa as developing country has also not escaped the national trends in globalisation and the underlying philosophy of free trade and the operation of market mechanisms. This philosophy includes aspects such as reduced government funding of the public sector, the marketisation of public services, the privatisation of state activities and exposure to competition from private providers as typical trends. Higher education in South Africa has not escaped the impact and challenges of a free market economy, as identified by Currie and Newson. As a developing economy as in South Africa rapidly transforms into a free-market and global-economy the very issues highlighted by these authors also challenges higher education, for example:

- Intensified marketing and recruitment strategies by institutions of higher education to attract local and international students from non-traditional feeding areas.
- The substantial increase in the number of private providers of Higher education required of the Ministry to implement a first ever registration and accreditation system for private providers.

The above economic factors tend to lead to an intensified effort for effective management of institutions of higher education and the subsequent implementation of management models and approaches for monitoring and competitiveness. It is the position of this author that the application of managerial models in higher education

indicate mixed success:

- Inherent nature of academic work and tradition remains uneasy with management based decision making and project-based implementation approaches. Collegial decision-making remains strongly embedded in the academic traditions of the university.
- The modern and current educational approaches that evolve from increased knowledge about the nature of learning require evaluative and qualitative analysis within a post-modern paradigm as opposed to positivistic quality assurance mechanisms.
- Return on investment in higher education comprises of more than success in numbers (e.g. success and failure rates) and reflects over time only as seen in the productivity and skills levels of the population.
- Effective internal management of universities are greatly enhanced by project based management and resource allocations.
- Marketisation of the university causes new and complex problems when it Establishes the student as a client compromises the transactional relationship and a singular focus on the market (workplace) may negatively impact on the nature of the higher education experience as it dictates the curriculum design.

On whether the application of management models in higher education leads to a truly constructive or a merely convenient relationship the author expresses some concern about certain trends and carefully optimistic view on some constructive effect.

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INSTITUTIONAL FRAMEWORK AND LAW HARMONIZATION IN THE DEVELOPING MARKETS

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ABSTRACT

*Serbia has conducted numerous reforms since 2001. In order to achieve macroeconomic stability and sustainable economic growth, large economic entities have undergone the process of restructuring; numerous companies have been privatized; and negotiations for European Union accession have begun. A similar situation exists in the Balkans region. A number of activities and measures have been conducted to improve business environment, attract foreign and domestic investments, enable accelerated growth and the development of a real sector, enhance the level of competitiveness and productivity, and decrease unemployment. The reform of the financial system plays a significant role in the overall reform process. Thus, it is necessary to create **a new regulatory framework** based on European Union directives that provides a considerable level of security and protection for all participants in the financial market. This would create a fertile ground for modern trading and the implementation of new instruments in the national and international markets. A set of laws and bylaws enacted provide modern financial market functioning, stability, and development.*

INTRODUCTION

Foreign investments have become a priority for many countries in the Balkan region, particularly for Serbia, which reopened international relations in 2001. Foreign investors, including the American council business society and economic diplomacy representatives, have enhanced foreign investments in the region. In June 2004, Serbia adopted the Action Plan for the Republic of Serbia, which facilitated direct investments with the Government Commission for Public Economic Development. Two years later, the Animation and Development Strategy for Foreign Investment was adopted. This strategy involved sign posts and fixable terms to create favorable business behavior.

INVESTMENT BASES AND DIRECTIVES IN THE REGION

The investment climat is not the same to business environment any one state in the question. For advancement business environment necessary is to create for every one who have taken part in business life – domestic, foreign, bigger, smaller.

Wich is International institutions opinion in the question of business environment. Ist Europe is taken significant place in the liste most efficient reformators in the world in the past few years. From 175 countries have rank order by World Bank, valuation their efforts in advancement business environment. Serbia is taken 68th place, instead 27th place in 2005. From the Balkan countries and the ex you republikes only Slovenian is taken higher, 61. place. With Serbia by the reform rapidity in the region have competition Croatia, Romanian and Bulgarien. In the last year Serbia was performed for the champion reconstruction and these 2006 she was not even in then countries reforms, but custom reformation doing in Serbia amphasize one of three breviest and most efficient correcting standard in the world. Even Serbia has gratitude for correcting standard results, she is in the group of countries wich have been unadvance the business environment in the case Serbia in employment matter. Serbia was taken in the bottom on the categorie World Bank for giving permission for the work (157 of 175 countries) the main measure for foreign investors in the choice the investment place.

By the estimate the European Bank for development and reconstruction (EBOR) the position of Serbia is actually on the half route of transition, it means crossing to officially market economy EBOR was appearing Serbia is further of explained target most of neighborhoods number (picture 1).

INVESTMENT DIRECTIVES IN THE REGION

The investment climate is not the same for every business in any one state. For advancement in the business environment, it is necessary to create opportunities for both domestic and foreign institutions. Eastern Europe has undergone significant reform in the past few years. Among the 175 countries ranked by World Bank for their efforts in business advancement, Serbia placed 68th in 2006, down from 27th in 2005. In the Balkans region, however, only Slovenia ranks higher. Serbia faces increasing competition from Croatia, Romania, and Bulgaria.

In 2006, Serbia underwent extensive reformation by adopting one of the most efficient standards in the world. Serbia is among a group of countries that have been advancing in the business world, especially in the employment sector. Serbia was ranked at the bottom in terms of granting permission to work, an important consideration for foreign investors. According to the European Bank (EBOR), Serbia is in route to transition, meaning that it is crossing into the official market economy and becoming the most targeted area for foreign investments (Table 1).

Table 1. Top ten banks by market share in Serbia and Croatia

	Serbia				Croatia		
Rank	Bank name	Mil \$	%	Bank name	Mil \$	%	
1.	Raiffeisen bank	2636	14	Zagreb bank	1321	23.1	
2.	Bank Intesa	1891	9.9	Business Zagreb bank	1022	17.9	
3.	Hypo Alpe – Adria bank	1847	9.5	Erste&Steiermarkische	6627	12	
4.	Commercialbank	1540	8.7	Raiffeisenbank	6172	10.8	
5.	HVB	1348	7.2	Society General	4837	8.9	
6.	Society General	897	4.6	Hypo Alpe-Adria bank	3867	7.4	
7.	Vojvodjanska bank	741	4.1	Croatian post bank	2180	3.8	
8.	Alpha bank	654	3.5	OTP bank	1944	3.5	
9.	Procredit bank	627	3.3	Slavonska bank	1631	2.9	
10.	EFG Eurobank	601	3.1	Volksbank	1010	1.8	
	Top 10	12782	67.9	Top 10	30611	92.1	
	Other banks	4213	32	others	2999	7.8	
	All banks	16995	100	All banks	33610	100	

Source: www.hrcb, www.nbs.yu, author prepared

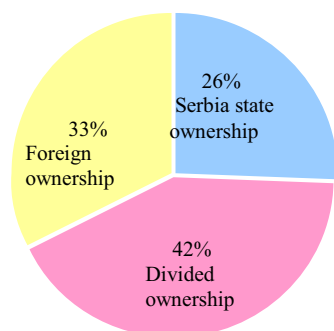
Last year, Serbia ranked first in the Balkans region for economic growth. EBOR emphasizes that one of main reasons is the low basement, meaning macroeconomic and structural problems; thus, restructuring public enterprises is a priority. Similar problems include a low transition level for infrastructure reform as well as increased competition. Over the past six years, such problems as political instability and lack of ownership rights have created a poor image of bureaucracy and corruption. Recently, Serbia enhanced its technical standards, quality control, origin regulation, consumer control, and accreditation procedures to combat this image.

REGULATIVE ECONOMIC AND FINANCIAL SYSTEMS

The adoption of new bank laws has been motivated by EU directives and base regulations. Advantages of these new laws include corporative management principles; improved voting rights and bank capital; rational bank procedures; detailed bank control; client security rights, and risk management.

In 2006, 38 banks profited. Most were foreign owned banks, followed by domestic, corporate, and state owned banks, respectively. Overall, 72% were foreign banks, 20% were state banks, and 8% were domestic private banks.

Figure 1. Bank ownership structure since 2005



Source: ESPI Institute, www.institutespi.org

In 2006, an estimated 114% of 40 countries comprised the credit ratio of the GDP, compared to 98% in 2000. Serbia had a credit ratio of 27% in 2006 and placed 35th. This ratio was 18.7% in 2003, 22.7 in 2004, and 28% in 2005. Latvia, Bulgaria, Ukraine, Lithuania, Estonia, Romania, Georgia, Russia, and Ireland have doubled this ratio since 2000. It is expected that the credit ratio in Serbia will be 31% for 2007, which remains far from that of other countries in the region.

In 2006, there were fifteen leasing enterprises, nine of which had foreign ownership five of which had domestic ownership, and one of which had domestic bank ownership with foreign capital. The central bank grants licenses for financial leasing, employing the standards for rejection irregularity in conducting business. Written conditions for contract agreements provide transparency with obligations for financial leasing institutions.

Investment fund law is a new regulation in the region. The UCITS 1 and UCITS 2 directives (1985–2000) were developed by the EU for transition countries. Investment funds provide an efficient way to mobilize resources for corporations. Investment in the national economy influences dynamic development and the domestic capital market. Besides investment funds, voluntary retirement funds are represented by thrifty catalyzators in developed financial markets.

The problem concerning the deficit is caused by transfers as well as the growing number of retirees and employees. Consolidated payment and reformation retiring administration in Serbia has been realized with the support of World Bank. The basic principles of retirement funds include voluntary membership, defined investment risk, egalitarian members, work publicity, and accumulation funds. Advantages of voluntary retirement funds include safe equity, larger incomes, taxes allowances, smaller investment risk, and the development of a thrifty culture.

Currently, there are four registered funds with assets comprising 0.03% of the GDP. The EU directive offers secure manipulation of the financial market (Directive 2003/6/EC) as well as integrity and credibility for foreign financial markets through market manipulation. The prospectus directive (Directive 2003/71/EC) provides personal cards, which give important information to potential investors.

BANKING COMPARISONS IN THE REGION

The banking sector in Serbia is characterized by fragmentation. Only five banks have earned more than 5%, which comprise 50% of banking. There is no Cartesian banking problems; the largest problems are

predominantly caused by the business environment. On the other hand there, there are many of banks with less than 2% equity; 25 banks in the sector create the entire market share. Thus, further bank consolidation is necessary in the long term.

Table 2. Bank shares for total banking assets in Serbia

	31.12.2005.		31.12.2006.	
Asset volume	Bank number	Asset participation	Bank number	Asset participation
Over 5%	5	50.3	5	49.3
2% till 5%	5	18.2	8	26.4
Under 2%	30	31.5	25	24.3

Source: www.nbs.yu, Bank balance sheets, author prepared

Unlike Croatia, there is no bank cartelization in Serbia. The top 10 banks comprise 92.2% of the market in Croatia but only 68 % in Serbia. The top 5 banks in Croatia comprise 72.7% of the market, compared to 50% in Serbia. It is important to note that the banking sector in Serbia, despite enormous growth in the last few years, comprises only one third of the balance sum in Croatia banks. The banks that have dominated market share can expect profitability due to good network positions and connections with clients.

RESEMBLANCES AND DIFFERENTIES IN THE REGION - BANKING SECTOR

Evaluating banking sector in Serbia has been by fragmentisam. First five banks only have taken a part above 5% wich made appraisaly 50% banking. There is no cartelisation banking problem, for now, even the biggest are predominantly creators of business ambience.

On the other hand there, there are lot of banks whose equity is under 2% so that 25 banks in the whole banking sector have created only with the quarter intirely market share. These has spoqen it will be necessary further banks consolidation, because on the long term all banks bellongs mansched grouping couldn't survive independent.

Comparing banking in Serbia and Croatia is going to affirmation theses there is no bank cartelization in Serbia: **Top 10 in Croatia made even 92.2% market, the same time in Serbia 68%.** There is moreone differenties for objecting top 5 banks: in Croatia they made even 72.7%, in the same time in Serbia about 50% market. It is important to noticefy banking size sector Serbia, wich is, inspite enormous growth in the last years, only the one third balance summe Croatia banks, until under total assets first 2 banks from Croatia. The banks who have dominated market share, it can be expected to make priority on profitability not on further growt market share in business politic and policy.

Most of them have very good positionning, network developing, connecting themselves good clients and management equipping. On the line is market introduce the new products and developot investment banking and widening investment funds, private retail funds in some cases connecting with insurance. The dominant bank capital owners in Serbia (estimate December 2006) are: state, banks and investors from Austria, Greeck banks, others owners and the others foreign owners. The best relationship between investing capital from the one side and collecting deposits and placing assets (wich is the most important purpose for capital coming into the market as a precondition high profits) the other side has been the austrien banks. Italian capital already has favourable ralationship (Intesa bank) as well as german but with the small market share. The most unfavourable have banks with domestic capital, with permanent getting worse competition marketing position.

The market is introducing new products and widening investment funds, especially private retail funds that are connected with insurance in some cases. In 2006, the dominant bank capital owners in Serbia were states, banks, and investors from Austria and Greece. Austrian banks have invested capital from one side and placed assets on

the other side, which is the most important precondition for high profits. Italy also has a favorable market relationship but a small market share. The most unfavorable banks operate with domestic capital.

Table 3. Share in balance bank categories by ownership origin (in millions of dollars)

Origin stockholders	Capital	participation	Asset	participation	placement	Participle	Deposits	participation
Austria	685	23%	6573	35%	3201	34%	4613	37%
Greece	637	21%	3225	17%	1362	15%	2007	16%
Italy	204	8%	2084	10%	1059	10%	1512	11%
France	174	7%	1032	6%	604	6%	890	6%
Slovenia	95	3%	549	3%	250	3%	338	3%
Hungary	74	3%	243	2%	152	2%	156	1%
Cyprus	57	2%	318	2%	151	2%	191	2%
Germany	64	2%	628	3%	301	4%	425	3%
Sweden	15		43	0%	20		23	
Other for.inv.	102	4%	302	2%	207	2%	203	2%
Serbia state	252	10%	1242	6%	645	7%	722	6%
Serbia enterp.	380	14%	1501	9%	957	10%	910	8%
Physical person	35	1%	159	1%	91	1%	106	1%
Total	2774	100	17899	100	9000	100	12096	100

Source: Bank balance sheets, author prepared

FINANCIAL SYSTEM ATTRACTIVENESS

The regulatory framework for the financial market must continue development in order to achieve macroeconomic stability. Since 2006, Serbia has successfully reached an agreement with MMF and achieved a credit rating of B+, indicating stable to positive outlook. In the same period, World Bank, OECD, EBRD, and other referent institutions announced Serbia as the leader in Central and Southeast Europe.

Serbia offers many advantages to foreign investor such as strategic positioning, the lowest tax rate on profit enterprises in Europe, and a simple procedure for export trading and production. The EU has recommended the development of company law and an action plan based on expansion transparency. There are two important areas for corporate governance: financial services regulation and voluntary regulation. Corporate governance refers to transparency of public information; equal treatment of auctioneers; a limited role of interest groups in corporate management; and a responsible management board.

The regulatory framework for financial market function was the condition sine qua non, but not enough one. It was necessary first to realize the level of keeping development and satisfied macroeconomic stability, which is in enough measure done.

Beginning 2006 successfully closed the broaden agreement with MMF and the other way amendment credit rating Serbian from B+ stable outlook (November 2004) on BB- positive outlook (S&P credit ratio). In the same period in many reports off: World Bank, OECD, EBRD and others referent institutions Serbia is announced leader compared with countries in Central and Southeast Europe, by fast conducting reforms.

The advantages Serbia offered to foreign investors, by the order SIEPA organizing are:

- Strategic positioning on Europe, Asia and Closen Ist,
- Duty Free approach to Free Trade Zone in southeast Europe – 60 mil consumers
- The one country out of CIC – Community of independent countries sight the free trade agreement with Russian Federation
- Serbia is not the member of EU, which gave more flexibility and advantages for investment

- Lowest tax rate on profit enterprises in Europe (10%)
- Educated and chip lable
- Most percentage citizens spoen English in southeast and central Europe
- Stable economy
- Simple terms for foreign investment
- Simple procedure for export trading and production and founded enterprises included stay foreignee terms, registration companies and customs
- Getting into partnership for peace in December 2006.

The banking sector in the region has grown very fast during the last few years. Simultaneously market positions of banks have changed. The enormous interest of foreign banks has led to stronger competition. As part of the end game in the takeover of the complete banking sector reaches the finish line, competition becomes ruthless. Foreign banks, already positioned in the domestic market, have brought noticeable change to the business culture and mentality.

CONCLUSION

The banking sector in the Balkans region has changed rapidly over the past few years. Simultaneously, the market positions of banks have changed. The enormous interest in foreign banks has led to strong competition. Foreign banks that are already positioned in the domestic market have brought noticeable change to the business culture and mentality of Serbia. A number of activities aim to improve the business environment, attract foreign and domestic investments, enhance the level of competitiveness, and decrease unemployment.

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