

**GLOBAL BUSINESS AND TECHNOLOGY
ASSOCIATION**

**EXPLORING THE POSSIBILITIES FOR SUSTAINABLE
FUTURE GROWTH IN
BUSINESS AND TECHNOLOGY MANAGEMENT**

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Editors:

**N.J. Delener, Ph.D.
Leonora Fuxman, Ph.D.
F. Victor Lu, Ph.D.
Susana Rodrigues, Ph.D.**

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STRATEGIC ALLIANCE BREAKUPS: THE VOLVO-RENAULT LESSON

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ABSTRACT

Research on strategic alliances tends to focus on their performance and outcome rather than the process that eventually leads to a particular outcome i.e. alliance success or alliance failure. This study aims to identify factors that lead to an alliance breakup. Specifically, the Volvo-Renault alliance within the European automotive industry is investigated as a case study. A 'Strategic Alliance Process Model' is developed based on the findings that outcome of a strategic alliance is determined by seven factors, namely partners' objectives, partner selection criteria, partners' resource contribution, partners' network and performance, environmental factors, ongoing assessment, and learning during collaboration.

Keywords: Strategic alliance; Renault; Volvo; alliance performance; global automotive industry

INTRODUCTION

Terms that describe forms of strategic partnering vary and include 'international coalitions' (Porter and Fuller, 1986), 'strategic networks' (Jarillo, 1988) and, most commonly, 'strategic alliances'. However, definitions of what constitutes a strategic alliance are also inconsistent (Casson and Mol, 2006). A strategic alliance is perhaps best defined as "an organizational and legal construct wherein "partners" are motivated to act in concert and share core competencies. To a greater or lesser degree, most alliances result in the virtual integration of the parties through contracts... Many result in actual integration through acquisition." (Pekár Jr. and Margulis, 2003, p. 51). The term 'strategic alliance' thus incorporates an array of inter-corporate transaction types, (with the exception of purchase orders), reflecting the varying degree of commitment and integration between the alliance parties. Licensing is a 'contractual alliance', while 'collaborative' alliances include shared resource arrangements, partial acquisitions and joint ventures. Collaborations that start out as contractual arrangements often evolve into more permanent equity-based structures once the relationship proves beneficial to both parties without necessitating merger or acquisition.

Irrespective of the alliance structure, the growing necessity to align in partnerships is gauged by the fact that the number of alliances being formed worldwide grows by 25 % to 35 % annually at about 10,000 per year. In the U.S., for example, the percentage of revenues for the top 1000 public corporations generated by strategic alliances increased from 3-6% in the 1990's up to 40% in the year 2010. Motivational drivers for this growth phenomenon include generating economic value and competitive advantage through accessing complementary resources and capabilities; leveraging existing resources and capabilities; getting access to assets not readily available in the market; concomitant share of risk and knowledge; neutralization of competitors; reducing transaction costs; and to reduce uncertainties in their internal structures and external environments. While these motives relate to improving efficiency and market position, strategic alliances also offer a channel to enter new markets as well as an extension of firms' network and exchange of knowledge, technology, R&D and learning from the partner firm (Bradley, 2005; Hyder and Abraha, 2003; Delvin and Bleackley, 1998; Das and Teng, 1998; Medcof, 1997; Pett and Dibrell, 2001; Yu, et al., 2011; Sambasivan, et. al., 2013). According to Bain and Company (2013) firms pursue alliances in order to reduce costs through economies of scale or increased knowledge; Increase access to new technology; inhibit competitors; enter new markets; reduce cycle time; improve research and development efforts; and improve quality.

Evidence shows, however, that formation of strategic alliances in pursuit of the benefits alluded to above does not guarantee their gain. It is estimated that between 30% and 50% of alliances are doomed to failure

(Blanchot, et.al., 2008). Evidence also shows that dissatisfaction with the collaboration process within the alliance and its eventual failure can be fuelled by a range of factors such as conflicts, poor perceived performance and inflexibility, humble communication, opportunism, incompatible objectives, control or ownership arrangements, misalignment of managers, path dependence, leadership style, inefficient management of human resources, and cultural differences (Arino and Reuer, 2004; Beamish and Kachra, 2003; Bruner and Spekman, 1998; Kauser and Shaw, 2004; Medcof, 1997). Given that the fundamental purpose of an alliance is to facilitate collaboration and varying degrees of integration between firms with similar objectives in order to combine, strengthen and broaden their resources to achieve common as well as individual goals that may be difficult to achieve otherwise, alliance failure implies that collaboration and integration mechanisms break down post-formation and / or these mechanisms were not set up correctly in the first place between the alliance partners. In other words, it is critical to identify (and manage) factors that can potentially harm the dynamic process of collaboration within a strategic alliance in order to maintain a healthy and efficient collaboration throughout the alliance lifecycle.

Against this background, the purpose of this research is to study 'failed' strategic alliances with a view to identifying and exploring the determinant factors that led to the failure of the collaboration process and how these factors could have been better managed differently to avoid failure. Furthermore, studying 'failed' alliances gives us the opportunity to chart the lifecycle of the alliance as the alliance would already have been terminated. Identifying the determinant factors that led to the eventual failure of the collaboration process over the entire lifecycle of the alliance would help to formulate successful alliance strategies. The following research questions are posed.

1. What factors determine the process, operations and eventual outcome of international strategic alliances?
2. What factors lead to alliance failure and how can these factors be better managed to deliver a win-win arrangement for the alliance partners to achieve success and to gain competitive advantage?

RESEARCH FRAMEWORK

This study adopts the conceptual model developed by Hyder and Abraha (2003) for the examination of alliance failure (Figure 1). This model divides the variables influencing strategic alliances into five groups, namely firms' motives, resources, learning, performance, network and the general environment defined as follows.

Learning: Learning is an important aspect of alliances as the key ability to synergistically exploit the capabilities partner firms bring into an alliance. It is argued that success and survival of alliances is dependent upon this ability (Hyder and Abraha, 2003; Doz and Hamel, 1998; Iyer 2002).

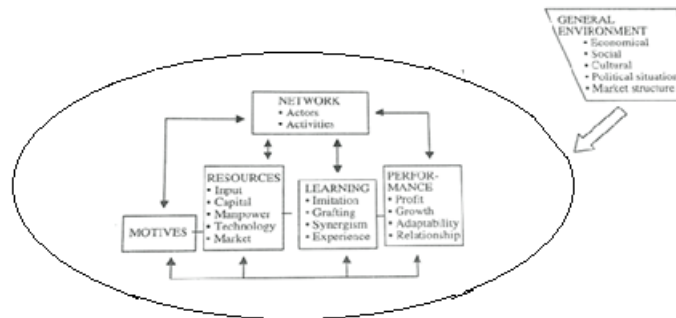
Performance: Performance of an alliance “is conceptualized as the extent to which member-specific goals are accomplished by the alliance” (Rehman 2007, p.21). Performance can be measured through (1) profit; (2) growth of a specific increased variable such as sales, profit or market shares; (3) adaptation represented by the ability of the firms to manage and change their procedure according to the environment, for instance different cultures, backgrounds or objectives; (4) joint participation which implies that all members of the alliance cooperate in an efficient way; and (5) survival referring to the capacity of the firms to persist without major structural or goal changes from the beginning (Hyder 1988; Boersma and Ghauri 1997 cited in Hyder and Abraha, 2003).

Network: Networks are interconnected relationships “in which the firms learn, through social exchange processes over time, to cooperate and thereby coordinate their activities” (Holm, et.al., 1996, p.1036). Hyder and Abraha (2003) divide networks into 'social networks' built upon social relationships, and 'industrial networks' that focus on control of industrial resources and activities. Since commitment and trust are central to successful networks, they are reflective of alliance partners' relationship since benefits accrue in the long run and include alliance partners to, for example, take risks in partnership they would not have otherwise, reduce transaction and administration costs, improve coordination, and save time and money in the negotiation process (Morgan and Hunt, 1994; Fadol and Sandhu, 2013).

General Environment: Within the strategic alliance process, every stage is influenced by the environment within which it operates. The general environment reflects the (1) economic conditions including economic growth,

living standards, export, import, balance of trade, foreign currency reserve, foreign direct investment and industrial resources” (Hyder and Abraha, 2003, p.91); (2) political situation and government regulations which “affect firms’ freedom to form business coalitions and joint ventures. Thus, government intervention provides the major constraints and opportunities for strategic alliance formation” (Todeva and Knoke, 2003, p.130); (3) social system especially when a firm decides to establish an exchange process with another corporation, the organizational attitudes and perceptions can present a major difficulty (Håkansson, 1982, cited in Hyder and Abraha, 2003); (4) cultural differences which firms have to manage in order to create a successful alliance climate; and (5) market structure influences since “alliance formation is broadly shaped by ... institutional frameworks in countries of operation, including legal requirements, macro-economic policies, price controls, financial capital markets, distribution channels, and methods of contract enforcement” (Todeva and Knoke, 2005, p.130).

Figure 1: Factors impacting the Process of Strategic Alliance (Source: Hyder and Abraha, 2003)



RESEARCH METHODOLOGY

Existing research on strategic alliances is narrow in that it tends to focus on alliance performance and thus on its outcome, rather than the factors determining the process leading to a particular outcome, success or failure (Hyder and Abraha, 2003; Pett and Dibrell, 2001; Börjesson, et al., 2014). This narrow focus is partly attributable to the fact that examining the process would necessitate a longitudinal study over the entire lifecycle of a strategic alliance, while data constraints tend to drive researchers towards survey based cross sectional studies. In order to chart the lifecycle of a strategic alliance in line with the aims of this research, case study approach was found to be the most appropriate. The case study methodology focuses on unique contents of a specific case, occasion or organization and provides a complete analysis of the observed issue (Saunders et.al., 2012), as well as on “the complexity and particular nature of the case in question” (Bryman and Bell, 2011, p.59). Furthermore, the use of a case study generates a detailed and intensive analysis of a single case about a person, a group or an event in order to develop as full an understanding of that case as possible (Silverman, 2010). It “allows an investigation to retain the holistic and meaningful characteristics of real-life events – such as individual life cycles, organizational and managerial processes, neighborhood change, international relation, and maturation of industries” (Yin, 2009, p.3). Notably, the case study method is useful to study historical events (Yin, 2009), which is of particular relevance to our research since it focuses on charting the lifecycle of a terminated strategic alliance as alluded to above.

Case Selection

Given that case study was selected as the most appropriate method of investigation aligned with the aims of this study, it was decided to focus on European alliances that included a Swedish partner in view of the geographical location of the researchers and their access to potential interviewees and data. Swedish alliances over the past 30 years were explored with a view to identifying alliances that had ceased to exist during this period. This process identified the Volvo (Swedish car manufacturer) - Renault (French car manufacturer) alliance. Beginning with a swap of components in 1971, Renault and Volvo slowly built a respectable relationship before becoming alliance partners in 1990. Being one of the most successful firms within their respective countries, the Volvo-Renault strategic alliance was “one of the largest and most prominent alliances in Europe ...creating a muscular world-class competitor” (Bruner and Spekman, 1998, p.137). However, despite its great success, the alliance only

lasted 3 years and was dissolved in 1993. Management issues were widely reported in the media at the time. This alliance offers an ideal case study for our research. Identification and examination of factors that led to its eventual failure should prove exemplary to other businesses.

Volvo: The Volvo Corporation, founded in 1927 by Assar Gabrielsson and Gustaf Larson, was established as an automobile manufacturer brand for the Swedish market. Today, Volvo employs 110,000 people operating in America, Europe, Asia and Africa with trucks contributing 63% to its overall net sales. The Volvo group is presently managed by Olof Persson, CEO since 2011, from its headquarter in Gothenburg (Volvo Group webpage; Volvo Group Presentation, 2013).

Renault: Renault is a French car manufacturer founded in 1898 by Louis Renault and his brothers. They quickly made a name for themselves in motor racing notching up a string of wins with their “voiturettes”. Today, Renault Group is directed by CEO Carlos Ghosn and designs, manufactures and sells vehicles under its four brands: Renault, Dacia, Renault Samsung Motors, and Avto VAZ. With its strong presence in Europe, the brand is increasingly expanding internationally. The success of Renault allows it to be present in 118 countries boasting 38 manufacturing sites and 13,300 outlets. The organization operates in five main markets France, Brazil, Russia, Argentina and Germany (Renault Group webpage; Renault Atlas 2013).

Research Design

In line with the aim of this study, a multi-qualitative approach is adopted using archival records and semi-structured interviews and questionnaires. The use of data from multiple sources helps to increase its validity and reliability. Ensuring replication is somewhat challenging since access to the same or similar interviewees may not be guaranteed.

Participants and Empirical Data

Senior managers familiar with the Volvo and Renault operations over the years and who had worked with these companies during the alliance period were identified for semi-structured interviews. Given the location of the researchers, face to face personal interviews were conducted in the case of Volvo in Sweden, while Skype and telephone interviews were conducted to gather data from Renault in France. In addition, experts in the automobile industry with knowledge of strategic alliance were identified and interviewed. E-mail questionnaires were used to gather data from the selected ‘experts’ in the automobile industry. Interviews were conducted in English and French, and lasted on average two hours each.

RESULTS

Renault and Volvo had built a respectable relationship for almost 20 years before becoming alliance partners in 1990. With the formation of this alliance, the ownership of the car and truck sector within both companies changed. Renault bought 25% of Volvo’s car production sector while Volvo became the owner of 20% of Renault’s motorcar division. In the truck sector, Renault and Volvo each held 45% of the other company’s truck division. Based on the responses from the interviewees, the key factors that impacted the Volvo-Renault alliance and eventually sealed its fate are identified as follows.

Partners' Objectives: The alliance between Renault and Volvo would create the sixth largest car manufacturer, and the second largest manufacturer of heavy trucks in the world. It was motivated by (1) both firms wanting to exploit the potential of what the two partners could gain in joint product development, purchasing as well as quality and manufacturing, and (2) due to the economic recession, there was an increasing saturation of demand with the capacity utility in Europe at 66% (Bruner, 1999). However, the management of the two firms had quite different perspectives as Gyllenhammar, CEO of Volvo at the time, himself later stated about the alliance: “Volvo was strategically vulnerable and needed a sizable partner with whom it could obtain advantageous purchasing arrangements, over whose volume of output it could amortize rising new product developing costs and whose deeper financial pockets could sustain Volvo through a moderately severe recession” (Bruner and Spekman, 1998, p.132). Moreover, Volvo needed financial help for innovations, new

product development and a “nest egg” for years of scarcity, which could only be achieved by a partnership. However, according to our interviewees, it was always meant to be a takeover by Renault initially structured and camouflaged as an alliance. As one interviewee put it “at the beginning, some people within Renault thought their company would buy out Volvo and teach them how to make cars. Being equal partners within the alliance was never Renault’s main objective”. This is backed up by the response of journalists and market analysts at the time who viewed this transaction as a takeover from the start.

Partner Selection: An alliance with Renault seemed a good offer to Volvo especially in the car production sector, know-how, and in terms of financial capital. While Renault hoped to gain Volvo’s excellent product engineering capabilities and exploit Volvo’s brand reputation for safety. Further, the firms’ product lines did not overlap. Volvo was a premium car brand, while Renault focused more on mass production. Notably, however, unlike BMW or Mercedes for example, Volvo had relatively small output and a small range of products which barred the firm from achieving production efficiencies necessary to compete effectively on the global market. Volvo had to make a choice either to sell or to join a partner. Initially, Volvo considered Audi as a partner. However, when Renault offered the partnership since it already held shares in Volvo, it seemed the most effortless decision for Volvo to partner with Renault. According to the experts, the two firms really wanted the alliance to work and were devoted to its success.

Resource Contribution: Both Renault and Volvo engaged a variety of resources for the alliance such as technology, materials and knowledge. In fact, since they shared the same suppliers, the collaboration became so integrated that they even bought products from each other. Given their relative size, Renault contributed more working hours, while Volvo focused on engine development. Differences in the level of ability of the two firms’ in the use of technology, (Volvo used CAD - Computer-Aided Design - while Renault’s technology was out of date, car parts were drawn using paper designs on wooden boards for example), seriously affected decisions relating to shared resources. However, there is consensus among all managers and experts interviewed that there was an equal contribution of resources from both firms overall.

Network: Each firm had access to the other firm’s network and was able to establish and deepen relationships in the alliance partner’s country. One of the senior managers, who was an expatriate from Renault to Volvo during the collaboration period, stated during the interview that he himself established a close relationship with Volvo’s CEO Gyllenhammar at the time and his team built a “good connection” with the Volvo team in Gothenburg and Skövde, as well as with suppliers common to both alliance partners. These relationships represent both industrial and social networks whereby alliance partners are provided with know-how through their common suppliers rather than through competition. Networking with Renault helped Volvo to develop innovations more rapidly, and methods of using raw materials more efficiently.

Performance: Conflicting accounts were recorded by the interview participants regarding performance. While there was overall agreement that the pace of innovations grew as did production while costs fell, it was also acknowledged that these improvements were below expectations and neither firm felt that it gained as much profit as they had anticipated as part of the alliance. However, the perspective of alliance partners differed. Reflecting back, senior managers from Renault commented that not only a lot of car parts were developed during the alliance, this innovation continued even after the alliance was dissolved. “Thanks to the alliance, cars were more efficient than before the collaboration”. It was further noted that technically, Renault was more efficient within the alliance than it had been independently. Conversely, senior managers from Volvo had a negative perspective with regards to improvement in overall efficiency as a result of the collaboration. One commented, “That [improvement in efficiency] was never the case. In big companies you cannot be efficient in all areas because over a certain limit you will lose efficiency. If you add one extra person you are not able to utilise this person 100 % so you will have losses in efficiency. Same was the case in our [alliance] companies, even if you have a lot of people and add extra people you will never be able to utilize all of the collective knowledge or working hours”.

Cultural Factors: All participants agreed that the major problem was the clash of cultures which seriously affected cooperation between employees from the two firms. In particular, the French and the Swedes held different opinions about product development and working style. Both firms made attempts to adapt to the cultural differences organizing language courses and special classes to raise cultural awareness among their workers. However, given that the instructional language was English, it hampered communication. As one senior

manager from Renault stated, "My biggest regret was that I did not learn Swedish so the exchange among us was limited". On the other hand, Swedish managers commented that, "French like to think of themselves as being better educated coming from good engineering schools", while Swedes tend to trust even strangers quickly which results in Swedish people coming across as being more naive. Consequently, communication problems started to arise with the French starting to negotiate in French only in order to exclude the Swedes". The Swedish managers pointed out that certain decisions were made by Renault's employees from a perspective as if they held a higher managerial status than Volvo employees. These differences in managerial status created problems during discussions especially relating to technical problems. Although the Swedish employees were technically more advanced, French were more rhetorical and quick-witted always downplaying technical difficulties by "engaging in vast discussions".

Organizational Factors: Based on the interviews, organizational factors are categorized as follows.

(1) *Leadership Style:* An open communication is a hallmark of a successful alliance. While, Gyllenhammar of Volvo was said to be a visionary, he was aloof and lacked skills for leading a corporate transformation described as a totalitarian commander not feeling comfortable in the role of a "follower, a listener, a coach, a cheerleader Indeed, he may never have had to learn followership, since at a young age he was appointed CEO of Skandia Insurance by his father, and then of Volvo by his father-in-law" (Bruner and Spekman, 1998, p.147). Gyllenhammar's management style created a climate of distance and doubts within his firm, as well with his alliance partner. (2) *Management:* Both Renault and Volvo's top management pushed the alliance too fast aiming to achieve their individual rather than common objectives. As a result, they could not establish a common corporate culture accepting of the national differences amongst the partners' employees. Employees simply were not given adequate time to adjust to the changes brought about by the formation of the alliance. (3) *Commitment and Trust:* In order to generate commitment and trust, the alliance required a cross-acquisition of shares as well as a poison pill when seeking exit of the alliance making it costly for either party to dissolve the alliance. However, the leadership style in Volvo also impacted on this process and failed to build any confidence amongst its workers, as well as investors and shareholders making them doubtful about the credibility of alliance with Renault. (4) *Alliance Re-contracting:* While an existing contract has to be adapted to environmental changes, it must preserve its fundamental ideals and the spirit in which the alliance was built in the first place. With the proposition of a possible merger by Renault, the contract was modified such that there was a shift in control in favor of Renault from the original equal division of power. This proposed repartition damaged the confidence of Volvo's investors and its employees perceiving this as their degradation and Renault's attempt to dominate. Volvo also feared that its good reputation in North America would be compromised by Renault's perceived image of having poor product quality. (5) *Public Opinion:* Public opinion refers to the media, investors, shareholders, employees, and customers. The Swedish general public considers Volvo as one of Sweden's biggest assets as well as a famous landmark. Swedish tabloids began reporting rumors about a possible merger between Renault and Volvo and fiercely opposed and questioned the merger which had a massive impact on the public opinion, as well as on the relationship between the two firms. According to Bruner (1999) the general public, as well as Volvo employees and investors disapproved of the merger due to the negative campaign by the Swedish media which also ignited fears about possible job losses. However, our interviewees strongly disagreed on the importance of the public opinion at the time and its influence on the outcome of the alliance seeing it as "irrelevant to the (eventual) alliance dissolution". They acknowledge, however, that leakage to the press about the merger made it appear to be a hostile acquisition which was not helped by the fact that the proposed board formation with a French majority was perceived as "degrading the Swedish management". The media was poorly managed by the two firms.

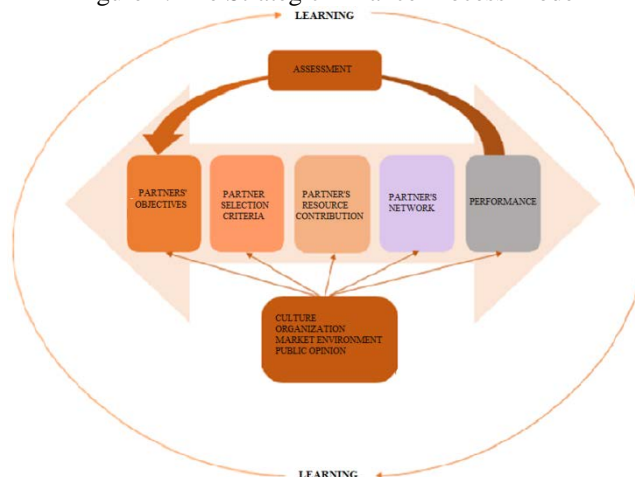
Learning: Both firms acknowledged that in retrospect they learned that an alliance bore a larger risk than they had initially anticipated, and that it was not easy to terminate and switch partners if either partner's objectives change and are no longer aligned during the collaboration process. According to our interviewees, Renault learned about the negative consequences of an inadequate organizational structure in particular and it was clear that they applied this learning to their subsequent collaboration with Nissan where their cooperation was evidently based on much greater mutual respect. According to our interviewees, Renault completely changed their alliance management team, the way of doing business with their partner, and made efforts to adjust to their partner's culture and took much more time for making final decisions and changes. In terms of cultural learning, for example, Renault now runs courses on intercultural training for its employees, as well as for cross-border project teams. In addition, they have recruited more women with the proportion of female engineers and managers rising from 15% in the 1990s to 25% today.

Dissolution of Volvo-Renault Alliance: In December 1993, Volvo had a special meeting, nominating a new board of directors to discuss the dissolution of the Volvo-Renault alliance, and decided that Volvo should remain independent. On December 6th 1993, the proposed merger deal was cancelled, and in February 1994, Gyllenhammar and Schweitzer announced the dissolution of the alliance. After the dissolution, Volvo became a stronger and more successful competitor and in 2001, acquired Renault's truck business for which Renault got 20% of Volvo's shares ("Renault Trucks kehrt zurück", 2013). In 2007, Volvo invested in one of Renault's subsidiaries in Blainville, France, in order to increase the capacity of both assembly and painting and to improve their cab production line ("Volvo to invest in Renault", 2007). While Renault sold its Volvo shares, Volvo invested more than €2 billion in Renault between 2008 and 2013 and also shifted parts of its production back to France ("Renault Trucks kehrt zurück", 2013). From a technical point of view, today, Renault and Volvo still cooperate in the truck sector and through Swedish car reseller Bilia Personbilar AB, a heritage from the collaboration period. At the time of the interviews, none of the respondents expected a revival of the alliance due to the bitter breakup.

DISCUSSION

In view of the findings, our conceptual model based on Hyder and Abraha (2003) depicted in Figure 1 was modified. The revised Strategic Alliance Process Model (Figure 2) defines the strategic alliance process in terms of seven variable groups, namely (1) partners' objectives, (2) partner selection criteria, (3) resource contribution, (4) network and performance, (5) environmental factors, (6) assessment, and (7) learning. Notably, this model depicts *learning* is continuous and ongoing throughout all alliance operations and actions. Moreover, *assessment* on an ongoing basis is also important to act as a control mechanism for factors potentially harmful to alliance efficiency and to guarantee its success. The findings show that *environmental factors* and firms' *objectives* (Figure 2) play a critical role in its eventual survival. With respect to *objectives*, the alliance partners are often unaware of each other's hidden agenda, internal objectives and priorities. These communication gaps can result in misalignment of shared as well as individual goals leading to a breakup of the collaboration process especially if the goals of either or both partners change during the collaboration process without the knowledge of the other partner. Renault's undisclosed objective of planning a merger and acting as principal had a major negative impact on the outcome of the Volvo-Renault alliance.

Figure 2: The Strategic Alliance Process Model



With respect to the *environmental factors* (Figure 2), culture influences the outcome of an international strategic alliance the most. Cultural diverse partners have to establish a common corporate environment in order to cooperate in an efficient way for the alliance to sustain. Organizational factors are also critical as companies in different countries have diverse work processes, hierarchies and division of power and if firms are unable to adapt to these differences, the alliance is very likely to be unsuccessful and may even fail. Government regulations and prevailing market conditions also have a huge impact on the alliance operations and outcome as does the public opinion which serves as a prognosis of a future success or crisis. It is worth mentioning however, that the influence of public opinion may vary from country to country. As the case of Renault and Volvo

demonstrates, public opinion had a major influence in Sweden but not in France. The factors influencing the outcome of an alliance (Figure 2) can be further categorized into *internal* and *external* factors. Organizational *culture* and *organization* set up are *internal* to a company: culture is a component of each individual working at a firm, and organization is how the company is structured and managed, while *market environment* and *public opinion* are *external* to a company. Arguably, internal factors are manageable to improve alliance performance, but firms cannot, for example, legally circumvent governmental rules and regulations and/or influence the press without compromising ethics. Findings show that at the organizational level, managers should focus on clear communication and creating a positive work atmosphere. An 'alliance mediator' with international experience should be employed with a mandate to facilitate negotiations and communication between the partnering firms. Additionally, alliance collaboration needs "a coach, guide and visionary (...), [with] the ability to build buy-in, involvement, and participation". The theoretical argument is that such measures would lead to greater trust which, in turn, decreases the perceived risk of opportunism and encourage partners to engage in wide-ranging, continuous and intense contact (Kale et al. 2000; Muthusamy and White, 2005). Concerning cultural adaptation, managers perhaps have the widest range of possible intervention. Gudykunst et al., (2001) suggest language courses, intercultural workshops, culturally specific seminars concerning the other country's history, daily life and cultural value shift as well as simulations and role plays.

MANAGERIAL RELEVANCE

Based on the findings, the managerial measures that support and nurture a strategic alliance are as follows.

1. Visionary leadership that places emphasis on the shared partnership goals rather than on individual gains throughout the collaboration period is vital.
2. Transparent and open communication must be maintained throughout the collaboration period.
3. Management of stakeholders' perception is critical. In particular, the share and balance of power must be perceived as equal by workers of both alliance partners to ensure high morale. While, investors and shareholders must be informed about strategic decisions in a timely fashion to ensure their ongoing support.
4. Investment in cross-cultural training is essential and must be complemented by timelines that permit sufficient time for employees to adjust to their partner's culture and way of working. These timelines should be adjusted and relaxed if necessary to ensure employees' ongoing commitment. The greater the cultural difference between alliance partners, the more critical is the need for managerial intervention. If cultural difference can contribute to the breakup of alliance partners as is the case with Volvo and Renault, the difference, if not actively managed, would be even greater between more culturally diverse alliance partners.
5. Organizational set up in terms of independent entities must be established in order to ensure the role of intermediaries to maintain the balance of equality within the alliance.
6. Continuous assessment and monitoring and immediate dissemination of learning is essential for an effective and timely organizational adjustment in general and to build and maintain mutual trust in particular.
7. Media coverage must be managed tactfully in order to avoid any negative impact on agreed strategy.

LIMITATIONS OF THIS STUDY AND FUTURE RESEARCH

This study necessarily focused on a single Volvo-Renault alliance. It would be interesting to compare this alliance with the subsequent Renault-Nissan alliance. It could be argued that the Renault-Nissan collaboration has operated successfully due to what Renault learned from its earlier alliance with Volvo. Moreover, the relationship between organisational factors and alliance performance should be explored given that inefficient organizational entities within Renault and Volvo are observed as one of the key reasons for Volvo-Renault alliance failure. Research should also examine the process and the impact of establishing of a common alliance culture in ensuring a harmonic working environment, a critical factor that is often overlooked by managers. The combination of Renault's 'hidden' intention of planning a merger and acting as principal had a major impact on the outcome of this failed alliance. The principal-agent problem resulting in the imbalance of control between alliance partners as well as the unequal information advantage should be further explored. The 'Strategic Alliance Process Model' developed in this study based on Volvo-Renault alliance can be extended to other alliances between multinational firms in general, and European alliances in particular as they face similar environmental factors. It would be interesting to test and apply this model to non-Western alliances and alliances between Western and non-Western firms.

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IMPACT OF THE DEPOSIT GUARANTEE FUND ON FINANCE AND BANKING: EVIDENCE FROM BRAZIL

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ABSTRACT

The global financial crises began and it demands the introduction of the social responsibility on the Deposit Guarantee Fund within the Society, in general, and within the deposit client of Financial Institutions, in particular. This research discusses the annual report of the Brazilian Deposit Guarantee Fund through the challenges of accounting and finance. The BDGF is a financial institution that enhanced the market confidence and stability on the deposit-insurance system. The nature of its functions demand constant regulation and supervision that provides a first line of defense against adversely affect confidence on the Brazilian financial and banking market.

Keywords: Accounting, deposit, guarantee, fund, Brazil

INTRODUCTION

When a bank failure occurs, then it is unable to meet its obligations to their clients. In this case, the insecurity that this system could generate in the citizen could lead to the failure of other banks and the bank system shall be jeopardized (Fama, 1980; Cariboni et al., 2008). Indeed, the financial and banking crisis can justify the effect of eruption of systemic risk in order to avoid the disorderly failure (Diamond, 1986). This cycle could start with small financial or banking system disruptions (Philips et al., 2004).

To face these risks, in Brazil, since the years 90, with the adventure of Plano Real (that consolidated the stability in the Economy and presented the comparability of the information (FGC, 2015), that could not be done until that moment, because of the inflation) the global trend has been the establishment of the formal deposit guarantee systems (Demirguc-Kunt et al, 2008). This motivation task goes behind this trend, because it justifies the rational level of authorities' increasing concern with the stability of the financial and banking system (Garcia, 1999, 2000). This is reflection in the implementation of additional instruments for monitoring and control, as well as, the consequent creation of system protection networks.

Brazil has followed this trend (and then loans, efficient regulation, supervision, appropriate legal structures and direct protection to depositors through a guarantee system, are elements of this network designed to maintain a solid, healthy banking system. The National Monetary Council's (in Brazilian *Conselho Monetário Nacional*) publishes the Resolution 2.197, of 31 August, 1995 (FGC, 2015), which authorizes:

"setting of a private non-profit organization to control the protection of credit holders against financial institutions".

In November 1995, the Statute of this new organization was approved with the Resolution 2211 of 16 November 1995 (FGC, 2015) and *Fundo Garantidor de Créditos* has been created. Furthermore, the main objectives of the *Fundo Garantidor de Créditos* are to render credit guarantee with member-institutions in the event of:

- *Resolution of intervention and extrajudicial liquidation of member-institutions;*
- *Recognition by the Central Bank of Brazil of insolvency status of member-institutions which under the terms of the current legislation are not subjected to the provisions referred to in the previous item.*

Also, the *Fundo Garantidor de Créditos* objectives take into consideration the purpose to contribute to the maintenance of the stability of the Brazilian National Financial System and to prevent the systemic banking crises (FGC, 2015), such as:

- *To protect depositors and investors under the financial system, up to the limits set forth by regulation;*
- *To contribute to the maintenance of the stability of the National Financial system;*
- *To contribute to the prevention of systemic banking crises.*

There are operations of the financial support and the assistance, including liquidity operations with member-institutions, directly or through other corporations chosen by member-institutions, including with their controlling shareholder's. Indeed, the Resolution 4222, of 23 May 2013 (FGC, 2015) details that the level of protection for each bank client or account determine that:

“total credit held by each person against one single member-institution or against all member-institutions of the same financial conglomerate, will be covered up to R\$ 250,000 limited to the actual outstanding balance”.

The structure of this paper is organized as follows. This section presents the introduction. Section 2 gives an overview of the research design and methodology in the finance and banking literature review. Section 3 focuses on the Brazilian reality of the Deposit Guarantee Fund addressing the main findings and discussion. Finally, the last section presents conclusions with the managerial implications and promotes future research directions.

RESEARCH DESIGN AND METHODOLOGY

The methodology of the paper is based on the literature review of finance and banking that promotes a theoretical approach to the annual report (Demirguc-Kunt & Kane, 2002; Nowakowski, 1997; World Bank, 2004). Due to this framework, the empirical analysis is based on the case study of the *Fundo Garantidor de Créditos* (Yin, 2012). However, there is a gap that persists between finance disclosure and banking practices that affect the general activity of the fund guarantee deposit (Clatworthy & Jones, 2003; Calorimis & White, 1994). Accordingly with this theoretical and empirical framework and to empower the citizenship with better understanding and avoid errors and fraud (Gavin & Hausmann, 1996), the authors point out the research question: *why the Deposit Guarantee Fund impacts on finance and banking ?* with controversial aspects of the analysis based on standards, such as: Resolutions of the *Banco Central do Brasil*.

Accountability therefore necessitates the development of appropriate measures of the performance and the reporting actions (Crowther & Rayman-Bacchus, 2004). The annual report must follow the annual audit phases, such as: engagement management and knowledge of the entity and risk analysis. The methodology, based on the content analysis (Krippendorff, 2004), relies on information extracted from the Annual Report and the Statistics Report since 1999 till 2014 in Brazilian Market (FGC 2015; FDIC, 2000, 2004; Llewellyn & Northcott, 2005). The authors point out that this review is not completely conclusive due to the higher level of information (Riley et al., 2001)

First, this research provides evidence of the effectiveness of the protection mechanisms on the deposit insurance system, which provides high and equal protection to all stakeholders (Kane, 1995; Onder & Ozyildirim, 2008; UNEP, 2008). Second, it emphasizes the need of requirements of rigorous accounting process and effective financial report to reduce the moral hazard implications (McCoy, 2007; O'Brien, 2004). Third, this

research focuses on the need of total disclosure of the financial information, which gives higher transparency and protection to deposit client of financial institutions and markets (Wadhawani, 2006; Mayes, 2004).

FINDINGS AND DISCUSSION

One of the principles of CSR is transparency that is not followed despite of being used in promotion information in the banking system (Huang et al., 2009; Clatworthy & Jones, 2003). The number of members of *Fundo Garantidor de Créditos*, since 1994 till 2013, is presented at Table 1 and represents all the banks that exists in Brazil that are allowed to promote their financial activities. This table presents two separate tendencies. The first tendency demonstrates the stability of the number of saving banks since 1994 till 2006. The second tendency expresses the strong reduction of banks with a minimum of 156 in 2014 and a maximum of 246 in 1994.

Table 1 - Entities Members of the PDGF, 1994-2014

Years	Banks	Years	Banks
1994	246	2005	161
1995	242	2006	162
1996	231	2007	159
1997	217	2008	162
1998	203	2009	161
1999	194	2010	160
2000	192	2011	163
2001	182	2012	163
2002	167	2013	158
2003	164	2014	156
2004	164		

Source: Banco Central do Brasil (2003-2015)

Table I shows the beneficiaries of the ordinary guarantee rendered by the *Fundo Garantidor de Créditos* are the member-institutions, referred to under article 11° of the Statute, investors and depositors of these institutions, deposits kept in accounts which do not accept checks. The increasing concerned of corporate social responsibility in all areas should develop the improvement of the banking and finance system.

The Payout System could be described as following (FGC, 2015):

1. The Liquidating Bank prepares and separates (according to branches) lists that consolidate credits based on CPF/CNPJ (Natural Person Register/National File of Juristic Person) of beneficiaries with the amount each of them will receive FGC as well as the respective payment documents (Assignment Documents).
2. Payments will be made via a Paying Bank, chosen by FGC, in its branches located close to the ex Liquidation Bank branches to facilitate the beneficiaries' access.
3. At the moment the beneficiary receives the credit he or she should sign the Credit Ceasing Commitment to FGC, which will be sent to the branches of the Paying Bank (one copy is for beneficiary, one will serve as proof to the Paying Bank and one will be sent to the Liquidating Bank it will be microfilmed).
4. Credit direct to checking accounts is not allowed, even if the beneficiary has an account with the Paying Bank. Once the signature in the Credit Ceasing Commitment is mandatory the beneficiary will have to be present or send an authorized officer to do so. (a proxy will be accepted)
5. Neither the beneficiary nor FGC will be charged for this service.

Table 2 presents demand deposits or deposits drawable through prior notice, savings deposits, time deposits with or without the issuance of certificate, exchange letter, real estate letters, mortgage letters, real estate credit letters, agribusiness credit letters, compromised operations covering securities issued after March 8, 2012 by associated corporation (FGC, 2015).

Table 2 –Deposit of the Entities Members of the PDGF, 1999-2014

Years	Clients	Fund resources	Years	Clients	Fund resources
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1999	74908097	246339000	2007	134.829.464	740.136.000
2000	82942743	279746000	2008	142.247.949	1.003.027.000
2001	93963118	312435000	2009	151.102.765	1.052.417.000
2002	87630527	265734000	2010	161.761.544	1.196.507.000
2003	93154865	399710000	2011	174.783.060	1.331.808.000
2004	102213833	469679000	2012	188.161.983	1.376.446.000
2005	111973847	546035000	2013	199.099.778	1.618.392.000
2006	126.180.634	624.538.000	2014	275.136.070	1.756.839.786

Source: Fundo Garantidor de Crédito (2003-2015)

Thus, accountability is another principle of CSR, knowing that the financial flow of banking system managed different entities (Aras & Crowther, 2010). It is important to notice that, in 2014, the representation of the deposits are mainly: savings deposits with 37.34% and deposits in account (short term and long terms) with 43.21%. Also, the Liquidating Bank prepares and separates (according to branches) lists that consolidate credits based on CPF/CNPJ (Natural Person Register/National File of Juristic Person) of beneficiaries with the amount each of them will receive FGC as well as the respective payment documents (Assignment Documents).

CONCLUSIONS

This research discusses the development of the accounting and financial report framework of the Annual Reports made by the BDGF. So, transparency is strongly encouraged by the authors, who will promote social responsibility and then protection to the deposit client of banks. It is essential that all of them are always informed to careful judgment each finance decision and especially if they are from other countries. As the future development, the authors aim to widespread the accounting and financial report as weapon to combat malfunctioning of the financial and banking markets and help several stakeholders, such as: the Brazilian Deposit Fund, the Central Bank of Brazil, banks and the society to reduce financial illiteracy and innumeracy that has become ubiquitous, because banks have been the most important financial entity that sells valuable services (White, 1991).

The authors consider that banks need to base their disclosure police in transparency in order to allow clients and society to identify their own priorities and that this should be driven mainly by corporate social responsibility from entities operating as a public service. The sample used in the empirical analysis is based on *Fundo Garantidor de Créditos* that belong to the Brazilian Finance system. Relevant organizational variables were managed statistically through the multivariate analysis. The research shows implications at the operational level, the efficiency and the effectiveness of the deposit guarantee fund. There are inequalities in the distribution of Banks in Brazil. Neither corporate nor social agendas will be subordinated in favour of the other, so finance stability must be a strategic imperative. It must recognise the general collective obligation of preserving a sustainable banking and finance system for the present and future generations

More than merely investing efforts in fighting for political changes, without any advantage for society it is crucial to invest in safe and prevention of the money efficiency as a basic requirement to honor the social responsibility in banks (Allen & Gale, 1998). As a finite resource, the money should demand a permanent attention from society, as well as, the Governments in accomplishment prevention and monitoring systems, with a view to the defense of a sustainable banking and finance system (Goohart et al. 2006). This research confirms that as a global strategy for the deposit fund guarantee system and social responsibility is urgently needed.

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ACCOUNTING FOR CITIZENSHIP: THE ROLE OF THE AUDITOR

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ABSTRACT

This research discusses the accounting for citizenship through the role of the auditor. Thus, investors need information to help them to decide whether they should buy, hold or sell their positions. Agency theory explains the demand of audits. Therefore, the research shows that accounting and auditing aim to mitigate the risk level inherent to their investments. Auditors examine and assess assertions made on the reports presented by managers. For this reason, they make a judgment about the financial statements within the company (internal auditing) and outside the company (external auditing then the annual reports being therefore more trustful and transparent.

Keywords: Auditor, ISA, accounting, Portugal

INTRODUCTION

Many citizens confuse auditing with accounting. The main reason for this is justified by investors and managers on the disclosure policy and strategy of the accounting information system (Woods et al., 2009). This system is one of the fundamental sources that investors and managers use to justify the appropriate investment decisions. One perspective is that the accountant produces the accounting information system, the financial statements and the annual report to assess the business. Another perspective is that the auditor must possess expertise to evaluate:

“evidence about information to determine and report on the degree of correspondence between the information and establish criteria.” (Arens & Loebbecke, 1997:2)

Indeed, both the accountant and the auditor work together to promote more transparency to the annual report, in general, and the financial statements, in particular (Mautz & Sharaf, 1997). Therefore, the financial statements are required to be audited by law. For example, in Portugal, the Decree-Law n° 487/99, of 16 November, approved the legal regime of Portuguese Institute Statutory Auditors (in Portuguese: *Ordem dos Revisores Oficiais de Contas*) which has been amended by Decree-Law n° 224/2008, of 20 November, details in article 40° several duties of the statutory auditors in the exercise of following public interest functions:

“a) The statutory audit of accounts of, the audit of accounts and related services provided to, companies or other entities, within the terms defined in the following paragraph; b) The exercise of any other functions which by law require the personal and independent involvement of statutory auditors in certain acts or facts pertaining to the assets and liabilities of companies or other entities.”

But, the legal requirements suffered several changes over the time. Firstly, the Eighth Council Directive 84/253/EEC, of 10 April, based on Article 54 of the Treaty approve that the statutory audits is the person responsible for carrying out of accounting documents. Actually, the Directive 2006/43/EC of the European Parliament and of the Council, of 17 May, relates to the statutory audit of annual and consolidated accounts. All these changes have been reserved exclusively for statutory auditors by law. Moreover, public interest is not homogeneous and therefore cannot be simply represented. But, this situation inevitably creates conflicts with accountants, because they made all the accounting information system to the auditor work (Power, 2003). As Jensen & Meckling (1994: 1) argue:

“understanding human behaviour is fundamental to understanding how organizations function, whether they be profit-making firms in the private sector, non-profit enterprises or government agencies intended to serve the ‘public interest’”.

Also, Taylor & Glezen (1994) argue that the biased information creates a potential conflict with the management of the company that prepare the annual report and the investors that use this information. The citizens as well as other third parties of the company should make inquiries to completely understand the financial information which will decrease the level of errors and omissions. The role of the auditor promotes the public interest, because it reduces the inherent risk level. Indeed, no difficulties occur when the auditor accumulates planned evidence (Humphrey, 2008). Then, he concludes the auditing report with reasonable certainty. This allows the investors to increase the level of investment. Obviously, it could decrease the level of investment, when there is a qualification that has material effect on the financial statements. Whenever any of the options are required to perform the report, then as Hubdaib & Haniffa (2009: 224) say:

“auditors, as individuals, groups and sub-groups, through their interactions, construct meanings based on their understanding, experience and interpretation of their surroundings and actions at various levels.”

This increases the importance of internal and external auditing development, knowing that the auditor maintains an attitude of professional skepticism about management assertions. The managers of the companies, due to the small level of knowledge in auditing, should recognize the potential of the auditor to obtain new sources of information that will allow them to manage the company better. As Lemon et al. (2000: 12) argue:

“firms had concluded that perceived audit failures result not from the ineffectiveness of procedures in detecting misstatements but because of difficulties, for example in recognizing going concern problems or identifying fraud, arising from other aspects of the business context”.

The structure of this paper is organized as follows. This section presents the introduction. Section 2 gives an overview of the research design and methodology in the auditing literature review. Section 3 focuses on the Portuguese reality, the role of the auditor (OROC, 2015) addressing the main findings and discussion. Finally, the last section presents conclusions with the managerial implications and promotes future research directions.

RESEARCH DESIGN AND METHODOLOGY

The methodology of the paper is based on the literature review of auditing that promotes a theoretical approach to the auditing report (Arens et al., 2012). Due to this framework, the empirical analysis is based on several case studies (Yin, 2012). However, there is a gap that persists between accounting disclosure and accounting practices that affect the auditor report. Accordingly with this theoretical and empirical framework and to empower the citizenship with better understanding and avoid errors and fraud, the authors point out the research question: *why does accounting for citizenship promote the role of the auditor?* with controversial aspects of the analysis based on standards, such as: conceptual inadequacy, lack of enforcement, obsession with compliance and miscommunication of data (Sikka, 2009).

The annual report must follow the annual audit phases, such as: engagement management, knowledge of the entity and risk analysis; audit planning; audit execution and audit reporting. The methodology, based on the content analysis (Weber, 1990; Krippendorff, 2004), relies on information extracted from the Annual Inquiry of Corporate Governance of the Portuguese Securities Market Commission and the Annual Report of Corporate Governance of all listed companies since 1999 till 2014 in Portuguese Securities Market (CMVM, 2015). The authors point out that this review is not completely inclusive due to the higher level of information.

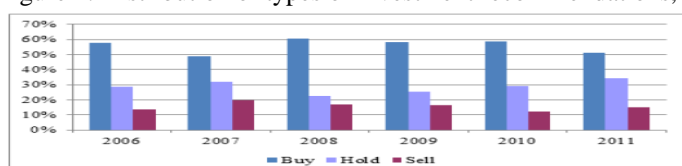
Investor protection is one of the primary objectives of securities regulation (IOSCO, 2009). Furthermore, IOSCO (2002) is concerned with investor protection and fairness, efficiency and transparency of the securities markets with the aim to reduce systemic risk. For example, some companies start to publish annual reports, then change to corporate governance reports and, finally, they disclosure several reports. Also, they have company web pages on the internet with investor relations. All over the world, several public entities and non-profit organizations, such as: World Commission on Environment and Development, International Federation of Stock Exchanges, Global Report Initiative (GRI, 2014) and European Union (CEC, 2001, 2002, 2007) have

actively promoted the disclosure by companies to improve transparency, accountability and sustainability. These concerns are extended to all stakeholders knowing that greater disclosures of value-relevant accounting information are more likely to have higher international capital mobility (Young & Guenther, 2003).

FINDINGS AND DISCUSSION

The role of the auditor is supported on the supervision of the internal control system and the auditing of the annual report. Indeed, based on the article 306° and 306°-D of the Securities Code (CMVM, 2015), the auditors should submit to the CMVM a report with an analysis on the adequacy of procedures adopted by the company. For example, in 2011, Figure 1 presents 676 investment recommendations, whereof 41% were drawn up by domestic financial intermediaries and 59% by foreign financial intermediaries. Furthermore, the figure 1 details the distribution of types of investment recommendations, from 2006 till 2011.

Figure 1: Distribution of types of investment recommendations, 2006-2011



Source: CMCM (2012: 178)

The assessment of the external auditor is mainly liable on the Company's Supervisory Board or Auditor Committee although sharing responsibility in certain circumstances with the management board (CMVM, 2012). The article 14° of Decree-Law n° 225/2008 define that the CMVM intervened on-site with the auditors during the supervisory actions and was represented in inspection teams appointed by the National Council for Audit Supervision (CNSA). Thus, table 1 shows the distribution of recommendations made to each company by the Auditors and Essentials. This table aim to protect investors, ensure efficiency and orderly functioning of the securities markets, monitor the quality of accounting information related to these markets and prevent the (systemic or not) risk (CMVM, 2015). All the companies from table 1 are accountable through their financial reporting and only to those stakeholders with sufficient power to influence activity, such as the auditor. A growing number of researchers (Jensen & Meckling, 1976) defend that the agency theory help managers to merely act as custodians of the company and its operational activities which can lead to higher rewards for those managers at the expense of a reduction in the value of the company.

The result of table 1 is 84% as an average of the recommendations of the auditors. The report of CMVM shows that none of these recommendations have been totally accepted by these companies. Indeed, a small majority of these recommendations have been accepted. Indeed, 21 companies comply with all the recommendations and only 6 demonstrate lowest compliance ratios equal or less than 50%. The recommendations of the Internal Auditing (R3) and Conflicts of Interest with and of the External Auditor (R6) have been poorly adopted. In fact, the auditor and accountant obtain a greater understanding of the accountancy environment. This is necessary to understand that internal and external supervision of the company's activity is highly applied in the management area. Thus, the lower compliance level introduces small level of control supported on these recommendations.

Table 2 will present the distribution of explanations made by the company and type of reason made by the Auditors. Also, table 2 will show several companies as example of different degrees of risk (higher level is red and lower level is blue) which are related with the explanations of the auditor based on his attitude of professional skepticism, with a questioning mind of the validity of audit evidence obtained. Also, he is alert to audit evidence that contradicts or brings into question the reliability of documents and responses to inquiries and other information obtained from management and those charged with governance (IFAC, 2011).

In table 2, the explanation R1 means representation of the company before the external auditor. So, as CMVM (2012: 77) defines: "the general and supervisory board, the audit committee and the supervisory board, depending on the applicable model, shall represent the company for all purposes at the external auditor, and shall propose the services supplier, the respective remuneration, ensure that adequate conditions for the supply of these services are in place within the company, as well as being the liaison officer between the company and the first recipient of the reports.

Table 1: Distribution of recommendations made to each company by the Auditors and Essentials, 2012

Company	Auditors (%)	Essentials (%)	Difference
<i>Altri, SGPS, SA</i>	67	80	-13,3
<i>Banco BPI, SA</i>	100	100	0,0
<i>Banco Comercial Português, SA</i>	100	100	0,0
<i>Banco Espírito Santo, SA</i>	100	100	0,0
<i>Banif - SGPS, SA</i>	100	100	0,0
<i>Brisa - Auto Estradas de Portugal, SA</i>	83	80	3,3
<i>Cimpor - Cimentos de Portugal, SGPS, SA</i>	100	100	0,0
<i>Cofina, SGPS, SA</i>	50	60	-10,0
<i>Compta-Equipamentos e Serviços de Informática, SA</i>	50	40	10,0
<i>Corticeira Amorim, SGPS, SA</i>	100	100	0,0
<i>EDP - Energias de Portugal, SGPS, SA</i>	83	80	3,3
<i>EDP Renováveis, SA</i>	100	100	0,0
<i>Estoril Sol - SGPS, SA</i>	83	80	3,3
<i>F. Ramada - Investimentos, SGPS, SA</i>	50	60	-10,0
<i>Fisipe - Fibras Sintéticas de Portugal, SA</i>	33	20	13,3
<i>Galp Energia, SGPS, SA</i>	100	100	0,0
<i>Glantt, S.A.</i>	100	100	0,0
<i>Grupo Soares da Costa, SGPS, S.A.</i>	83	100	-16,7
<i>Grupo Média Capital, SA</i>	100	100	0,0
<i>Ibersol - SGPS, SA</i>	83	80	3,3
<i>Imobiliária Construtora Grão Pará, SA</i>	60	75	-15,0
<i>Impresa - SGPS, SA</i>	100	100	0,0
<i>Inapa - Investimentos, Participações e Gestão, SA</i>	33	40	-6,7
<i>Jerónimo Martins - SGPS, SA</i>	83	80	3,3
<i>Lisgráfica - Impressão e Artes Gráficas, SA</i>	50	40	10,0
<i>Martifer - SGPS, SA</i>	100	100	0,0
<i>Mota-Engil, SGPS, SA</i>	83	80	3,3
<i>Novabase - SGPS, SA</i>	100	100	0,0
<i>Portucel - Empresa Produtora de Pasta e Papel, S.A.</i>	67	60	6,7
<i>Portugal Telecom, SGPS, SA</i>	100	100	0,0
<i>Reditus - SGPS, SA</i>	83	80	3,3
<i>REN - Redes Energéticas Nacionais, SGPS, SA</i>	100	100	0,0
<i>SAG Gest - Soluções Automóvel Globais, SGPS, SA</i>	83	80	3,3
<i>Semapa - Sociedade Investimento e Gestão, SGPS, SA</i>	83	80	3,3
<i>Sociedade Comercial Orey Antunes, SA</i>	83	80	3,3
<i>Sonae - SGPS, SA</i>	100	100	0,0
<i>Sonae Capital, SGPS, SA</i>	100	100	0,0
<i>Sonae Indústria, SGPS, SA</i>	100	100	0,0
<i>SONAECON - SGPS, SA</i>	83	80	3,3
<i>Sumol + Compal, S.A.</i>	83	80	3,3
<i>Teixeira Duarte - Engenharia e Construções, SA</i>	100	100	0,0
<i>Toyota Caetano Portugal, SA</i>	67	60	6,7
<i>VAA - Vista Alegre Atlantis, SGPS, SA</i>	100	100	0,0
<i>Zon Multimédia - Serv. Tel. Multimédia, SGPS, SA</i>	100	100	0,0
	84	84	0,3

Source: CMVM (2012)

In table 2, the explanation R2 means the need of the auditor judgment of the company. As CMVM (2012: 77) defines: According to the applicable model, the general and supervisory board, the audit committee and the supervisory board, shall assess the external auditor on an annual basis and shall advise the General Meeting to discharge the latter whenever justifiable grounds are present. Several recent financial scandals involves boards committees and the role of the auditor has been assured in particular situations to justify levels of jurisdictions.

In table 2, the explanation R3 means that there is internal auditing in the company. As CMVM (2012: 77) defines: The internal audit services and those that ensure compliance with the rules applicable to the company (compliance services) shall functionally report to the Audit Committee, the General and Supervisory Board or in the case of companies adopting the Latin model, an independent Director or Supervisory Board, regardless of the hierarchical relationship that these services have with the Executive Management of the company.

In table 2, the explanation R4 means the promotion of the periodic rotation of the auditor. As CMVM (2012: 77) defines: Companies shall advocate the rotation of auditors after two or three terms in accordance with whether it's four or three years respectively. Their continuance beyond this period must be based on a specific opinion for the Supervisory Board to formally consider the conditions of auditor independence and the benefits and costs of replacement thereof. From the Annual Report of Corporate Governance, the external auditor rendered services consecutively to the same company with an average of 8 years in 2008, 7.5 years in 2009, 8.8 in 2010 and 8.4 years in 2011. Only two companies stated limiting the number of years that an external auditor may render services to the company.

In table 2, the explanation R5 means the concerns about the remuneration policies. As CMVM (2012: 77) defines: The external auditor must, within its powers, ascertain the implementation of remuneration policies and systems, the efficiency and functioning of internal control mechanisms and report any shortcomings to the company's Supervisory Board. Another example is the fee received from works carried out by external auditors based on the global involvement within the listed companies that included audit, feasibility/assurance, tax services, as well as, other services rendered.

Table 2: Distribution of explanations made by company and type of reason made by the Auditors, 2012

Company	R1	R2	R3	R4	R5	R6
Altri, SGPS, SA						
Banco BPI, SA						
Banco Comercial Português, SA						
Banco Espírito Santo, SA						
Banif - SGPS, SA						
Brisa - Auto Estradas de Portugal, SA						
Cimpor - Cimentos de Portugal, SGPS, SA						
Cofina, SGPS, SA						
Compta-Equipamentos e Serviços de Informática, SA						
Corticeira Amorim, SGPS, SA						
EDP - Energias de Portugal, SGPS, SA						
EDP Renováveis, SA						
Estoril Sol - SGPS, SA						
F. Ramada - Investimentos, SGPS, SA						
Fisipe - Fibras Sintéticas de Portugal, SA						
Galp Energia, SGPS, SA						
Glintt, S.A.						
Grupo Soares da Costa, SGPS, SA.						
Grupo Média Capital, SA						
Ibersol - SGPS, SA						
Imobiliária Construtora Grão Pará, SA						
Impresa - SGPS, SA						
Inapa - Investimentos, Participações e Gestão, SA						
Jerónimo Martins - SGPS, SA						
Lisgráfica - Impressão e Artes Gráficas, SA						
Martifer - SGPS, SA						
Mota-Engil, SGPS, SA						
Novabase - SGPS, SA						
Portucel - Empresa Produtora de Pasta e Papel, S.A.						
Portugal Telecom, SGPS, SA						
Reditus - SGPS, SA						
REN - Redes Energéticas Nacionais, SGPS, SA						
SAG Gest - Soluções Automóvel Globais, SGPS, SA						
Semapa - Sociedade Investimento e Gestão, SGPS, SA						
Sociedade Comercial Orey Antunes, SA						
Sonae - SGPS, SA						
Sonae Capital, SGPS, SA						
Sonae Indústria, SGPS, SA						
SONAECON - SGPS, SA						
Sumol + Compal, S.A.						
Teixeira Duarte - Engenharia e Construções, SA						
Toyota Caetano Portugal, SA						
VAA - Vista Alegre Atlantis, SGPS, SA						
Zon Multimédia - Serv. Tel. Multimédia, SGPS, SA						

Source: CMVM (2012)

In table 2, the explanation R6 means the conflicts of interest with and of the external auditor. As CMVM (2012: 77) defines: the company shall not recruit the external auditor for services other than audit services, nor any entity in which he takes part or incorporates the same network. When recruiting such services is called for the mentioned services should not be greater than 30% of the total value of services rendered to the company. The hiring of these services must be approved by the Supervisory Board and must be expounded in the Annual Corporate Governance Report. From the Annual Report of Corporate Governance and within the context of analyzing possible conflict of interests, the effectiveness of the statutory audit report was placed on preventing such cases. Its benefits of enhanced transparency of the annual report will mitigate the limitations arise from conflict of interest and enforcement assistance among accountants and auditors.

Table 1 and 2 show a higher proportion of uncontrollable risks created by the investor who has a different position that is related with difficulties to value the economic decision as a whole, because his decision is complex and it takes into account emotions, beliefs, formal education and other information attached to each company. The fundamental concern is the protection of minority investors. Then, it develops the research to promote best practices for accounting for citizenship as mechanism to guarantee the stability of the market.

The answer to the research question is that accounting for citizenship promotes the role of the auditor, because it reflects the implications and importance of the annual report to be more understandable. However, the auditor is obsessed by the efficiency and protecting himself from litigation due to the auditor report. In conclusion, the business community and certain segments of the accounting profession were pursuing new ideas in risk management (Knechel, 2007). To sum up, the controversies in which auditors have figured certainly call

for greater standards of disclosure but right now companies have been converted into vehicles for social responsibility propaganda instead of the general trend that proves that auditing reports truly affect the company value (Matos, 2009).

The purpose of accounting and auditing is developing businesses to avoid strange circumstances to close the company. This can be contrasted with the behavior of companies which are truly located in their communities and, consequently, have need for the concept of accounting for citizenship, because they fully understand the obligations imposed by citizenship and are not only concerned with public image (Crowther, 2004).

CONCLUSIONS

Managerial Implications. The auditor report, usually, associated with the statutory auditor report is a customized report associated with the financial statements. This report has a legal form and it highlights the quality of the accounting information system which allows decision makers to adopt the necessary policies and strategies. Indeed, it is one more obligation procedure to the managers of the company. The role of the auditor is fundamental in the organizational structure of the company, because it justifies a useful connection between the confidentiality, the crisis management and the communication policy. His position is very high and near the central functions of decisions which increase the level of importance of the annual report. Even in decentralized companies, the auditor is always at top level decisions. Therefore, the auditor must be chosen based on the fundamental principles of code of ethics for professional accountants (IFAC, 2006), such as: integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Future Research Directions. In a world full of adverse effects, the role of the auditor requires particular attention from investors. The auditor of the financial statements must be recognized as vital in the detection of fraudulent financial statements and proposal actions to potential accounting issues that may arise. Then, the auditor will promote a sustainable environment at social, economic and financial level, due to the quality of the accounting information system. In addition, the courts and judges, with legal power, must provide a high-level of internal control system with the public revelations of accounting and auditing abuses. Investors and stakeholders of the financial statements will understand the level of completeness of their investments as well as provide guidance to new investments. Indeed, the effective engagement on the overall risk level will create routines to diminishing the potential of manipulation of the accounting information systems. Thus, will the role of auditor promote the accounting for citizenship in Portugal? Only the time will prove it ...

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THE IMPACT OF NON-COMPLIANCE TO BUSINESS PROCESSES A CASE OF A SOUTH AFRICAN COMMERCIAL BANK

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ABSTRACT

This paper investigates the non-compliance of most Business Processes in the implementation of the goals and targets of commercial Banks in Gauteng South Africa. The Banks lose millions of Rands, as a result of staff not adhering to the Business processes. The non-compliance has a major impact on the successful implementation of bank strategy. The study explores why staffs do not adhere to business processes and establishes their level of understanding and maturity in terms of business processes. The study was conducted in selected branches chosen randomly in Gauteng Province. The analysis done was on data obtained from audit reports, bank investigative reports and financial loss data reports provided by different branches. Questionnaires were also administered to staff in the different branches to understand their own perspective. It is evident from the research that non adherence to processes have a financial and reputational impact on the Banks. Non adherence also has detrimental and adverse impact on achieving overall objectives of the Banks. The most common areas not adhered to were notably; identification and verification of customers; transactions not authorised according to laid down procedures; customers cards not cancelled immediately when reported lost or stolen. The paper then concludes with several recommendations to Bank Management and Strategy implementers on how to use technological methods to check and monitor these processes.

Keywords: Strategy implementation, technological methods, process compliance, losses, reputation

INTRODUCTION

The different types of commercial banks locally controlled in South Africa are up to about thirteen with branches all over the country. In addition to this South Africa has about six foreign control commercial banks and a further fourteen branches of foreign banks in the country. These commercial banks are regulated and supervised by the South African Reserve bank whose primary mandate as the central bank is to achieve and maintain price stability in the interest of a balanced and sustainable economic growth in the country in collaboration with other international institutions. Each of these branches and banks are a commercial entity and operate independently. It is in this light that this study became of interest in-order to investigate the procedural compliance within these branches.

In any successful business the main focus would be to make money and to stand out as exemplary from the rest. A successful business normally out-performs their competitors by a large factor and delivers faster profit growth than any other similar business. In Gauteng most Banks have suffered financial losses and reputational damage due to staff not adhering to the laid down procedures and work ethics. This has resulted in a huge negative impact in terms of gaining customer confidence and achieving the ultimate goal which is to grow profits and gain a competitive advantage in the market.

The purpose of this study is to investigate and establish why most staff in banks do not adhere to business processes. The investigation will also include the level of maturity of these employees in terms of their understanding of these business processes. In order to understand the nature of the problem the study will focus

on selected branches where an analysis will be conducted on the various data obtained from the audit reports, investigation reports and loss data reports to gain insights into the problem. The credibility of the research will mainly depend on the ability and effort displayed by the researcher when analysing these reports in order to understand the phenomena. Dewitt (2013) summarised this problem in his Banking Channels strategy annual report by indicating that there has been an increase in Operational losses due to staff not adhering to business processes. He concluded by stating that Operational losses are detrimental to our business as it impacts negatively on profits and shareholder confidence.

LITERATURE REVIEW

In defining a business process Birger, Bider, Johannesson and Perjons (2005), states that it is a set of functions in a sequence that delivers value for an internal or external customer. They recommended organizing the design of business process using a business process factory to create a flow for design and implementation that includes a governance process, a management process and an operational process. The business process lifecycle as described by Papazoglou and Van Den Heuvel (2014) consists of the process design, process implementation, process execution, process monitoring and control, as well as process performed under governance guidelines. Kirchmer (2014), states that for business process management to achieve good results, the value add to the customer must be of primary importance. On the other hand process is defined by Anderson (2009), as the logical series of related transactions that convert input to results or output. A chain of logical connected repetitive activities that utilize the enterprise resources to refine an object (physical or mental) for the purpose of achieving, specified and measurable results/products for internal and external customers.

Dewitt (2013), states that businesses have seen a steady decline in Sales targets as a result of customer dissatisfaction in products and services, due to staff not adhering to laid, down business processes that were designed to safe guard and add value to customers. In order to maintain a competitive advantage it is important that processes are constantly improved and updated. Competitive priorities are critical operational dimensions that a process or a supply chain must possess to satisfy internal as well as external customers at all times. Krajewski et al (2010) in their study reported that competitive capabilities are cost, quality, time and flexibility dimensions that a process or supply chain actually possesses in order to deliver product or services and if these fall short of the priority attached to it then management must find ways to close the gap or revise the priority. Everything everyone does in an organization is part of a process. Invariably if you want to improve what the organization does, then you have to focus on improving the processes. The augment echoed by Bognar and Gaal (2011), Evan (2014), states that by putting your emphasis on the process, you avoid the typical trap that so many business leaders seem to fall prey to; looking to cut costs, they focus on trimming payrolls or pushing people to do more with less. This short sighted approach may get a brief bump in performance. However, in the long run you end up increasing costs; reducing value to customer and making it harder for the company to compete both locally and internationally.

The problems that affect most banks are not task problems but are process problems. The reason to slow delivery of results is not that people are performing their individual tasks slowly or inefficiently, but rather due to people performing tasks that are not required at all to achieve the desired result and this leads to an agonizing delays in getting the work done. An observation from a study by Hammer (1996), stated that normally there would be lack of continuity from the person who does one task to the person who does the next one, in short, our problems lie not in the performance of individual tasks and activities or the unit works, but in the processes and how these units fit together as whole.

According to Kirchmer (2014), it is difficult to keep policies and procedures up to date, due to ever increasing changes. Policies and procedures can become ineffective very quickly. One of the reasons that may cause these changes might be that procedures take too long to implement. For example if there are thirty-five pages of procedures in text format, one would not expect employees to understand, let alone use them. There is a risk that these procedures would remain unclear, overly complicated and just plain boring to most employees. Another reason why procedures may not be up to date is that they are not owned by the employees since they are not normally involved in compiling these documents. A report by Anderson (2009), stated that employees usually identify areas of improvement in the procedures during use but are unlikely to make any changes to these laws, regulations and company practices if not given the mandate. According to Vermeulen (2012), the result of

the economic down turn in businesses has resulted in increased focus on the reduction of costs which will include minimising losses as a result of both internal and external fraud or processing errors. He also echoed that Business processes will thus include organisations internal processes as well as those of its external customers and suppliers. Maybe another reason why people don't follow processes is perhaps because they cannot find these procedures. Maybe they do not even know that their organisations have procedures. It can also be said that if procedures are not offering helpful information then your employees will not have a reason to use them. Poorly written procedures will result in people not following them.

A research study conducted by Embrey (2012), to investigate the process guidelines lied down for company employees revealed that most employees could not adhere to procedures because of the following four reasons ranked in their order of importance.

- If followed strictly the required job would not get completed.
 - Employees are not aware that procedures exists
 - Employees prefer to rely on their skills and experience
 - Employees assume that they know what is in the procedure
- The most highly ranked strategies for improvement were indicated as follows:

- Involving users in the design of procedures
- Writing procedures in plain and clear English
- Updating procedures when planed and working practises change
- Ensuring that procedures always reflect current and world class working practices

Harrington (1991), in his findings wrote that having processes in place usually makes it easier for someone else to carry out a job with minimal disruption to clients and the overall business. If organisations can produce, manufacture and deliver high quality, low cost products that meet customer requirements in a timely manner, then its probability of success is increased. To understand business processes and how they can contribute to the success of an organisation it is important to understand how:

- Integrated system and business processes add value to the organisation
- Knowledge and technology in the form of processes, and procedure impact on the performance of the organisation
- Managers and well managed team work should achieve operating and organisational objectives.

The views held by Daniel et al (2009), Krajewski (2010), stated that In order to understand the strategic importance of business processes, it is essential that the employees understand processes in view of cross functional coordination that processes must add value for customers throughout the supply chain. He added that organisations must not “miss strategic insight” as it is processes that add value for customers throughout the supply chain and that the supply chain reinforces the link between processes and performance.

To improve business processes, Harrington (1991), stated that organisations should firstly

- obtain management support
- have a long term commitment
- apply disciplined methodology
- assign process owners
- develop a measurement feedback system
- focus on the process.

In order for processes to be effective we need to ensure that quality is included in every step of the way. Besterfield (2004), Grover and Jeong (1995), Miller and Pearce (1998), added that Total Quality Management (TQM) is a proven technique that guarantees survival in world class competition and only by changing the actions of management will culture and the actions of an entire organisation be transformed. Key to understanding the TQM concept is that it is applied companywide and includes all business processes that occur in the organisation. It relies on total employee involvement, commitment and visibility in support of improvement. It calls for commitment and leadership from the top in an approach to improve the competitiveness, effectiveness and flexibility of the whole organisation.

Total quality management is an essential component when designing business processes. Kelada (1994) argued that if processes are designed to cater for both staff and customers from the beginning we might not have

issues where staff does not adhere to processes. It is important that staff members who deal with processes on a daily basis are involved in the designing of the processes. Quality assurance testing must be done on all processes before it is implemented in the branches.

It is also noted that no organisation can compete successfully on all dimensions of customer value unless management set up goals effectively. It should also be noted that the operations strategy of any organisation depends almost entirely on the organisations value proposition. The focus is surely then on exceptional customer service as it is vitally important that business provides customers with the correct products and services that are aligned to customer expectations and needs.

The findings revealed by Gozdan (2013), Jeston and Neils (2008) states that in-order to remain both competitive and viable in today's business world, companies of all sizes continue to employ business process improvement techniques. Thus, poorly designed business processes and non-adherence to business processes will negatively impact on the value proposition to customers.

RESEARCH METHODOLOGY

The methodologies that were used in the study are as follows: Desktop research and document review and questionnaire surveys administered to ten branches in different sectors and locations in Gauteng, South Africa. Investigation reports where potential fraud has emanated as a result of non-adherence to processes, the loss data records where non-adherence to processes have resulted into losses and audit reports as requested by management were analysed for the current financial year.

Quantitative statistical analyses were conducted. The following activities were performed: Development of a research design; the development and piloting of questionnaires; Conducting the field survey; Data collection, collation, uploading and analysis; Reporting on findings, results and general discussions; Recommendations and conclusions were drawn on the non-adherence to processes by the bank employees. The aim of this survey is to determine the problems caused by non-adherence, and what needs to be done to address these problems. The study applied probability random sampling method. The study sampled at the ten branches in the different parts of Gauteng comprised of approximately twenty employees per branch, 53% of the staff in 10 branches responded to the survey, 50% of staff who responded is in a multi skilled role. Multi skilled consultants perform most of the functions in the branch. This includes sales, services and transactions.

FINDINGS AND RECOMMENDATIONS

The data analysis was performed using SPSS. The analysis is descriptive through the use of frequency tables. A brief explanation of the various report used in the analysis is given below: Audit reports: The objective of internal audits conducted is to provide management with reasonable but not absolute assurance regarding the achievement of objectives regarding effectiveness and efficiency of operations and product delivery, reliability of financial reporting and compliance with laws and regulations. Internal audit reports were analysed to identify findings relating to non-adherence to processes. The researcher focused on common trends where processes were not adhered to. The reports were further analysed for recommendations made by the auditor to see if these recommendations could be implemented.

Special investigation reports: Investigations are conducted when there are losses or where criminal activity is suspected. Investigation reports were analysed to identify common processes breached that resulted in losses. Only reports that highlighted staff negligence were taken into consideration. The total value of cash losses relating to staff negligence was noted.

Loss data reports: All operational losses including in internal/external fraud, from the branches are captured onto the open pages system. Loss data for the research was extracted from the open pages system for the period October 2013 to September 2014. These loss data was analysed to determine the root course of these problems.

During the survey 150 staff members responded to the survey of which 75% were female and 25% male. The respondents were aged between 22 and 56. The response was quite high because the researcher visited each of the selected branches and then administered the questionnaires with the help of the supervisors.

In Figure 1 below shows the classification of the respondents based on their main responsibilities in the bank. The findings revealed that 62% of staff were multi skilled and worked at various positions within the bank and therefore were more squinted with most processes. These groups of multi skilled consultants were more than willing to participate in the survey as compared to their counterparts' in sales, service and transactions. These other roles only concentrated at specific processes in their area of expertise.

Figure 1: The bank employee category of responsibility

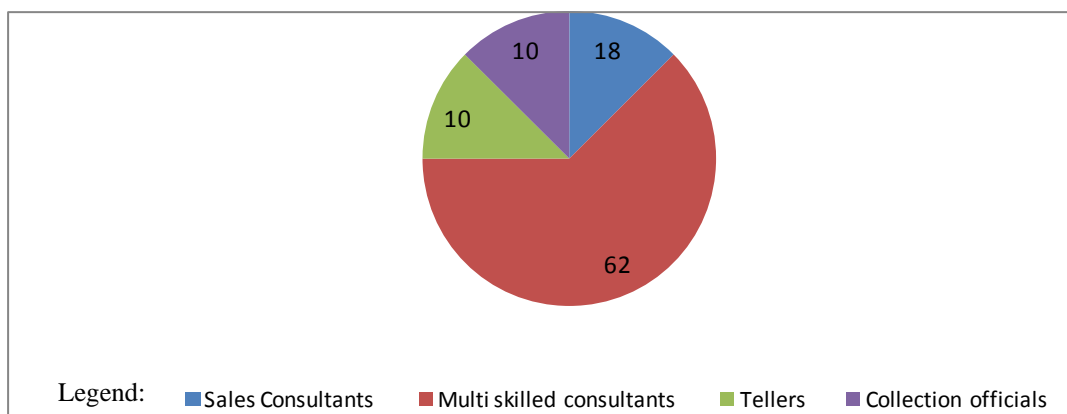
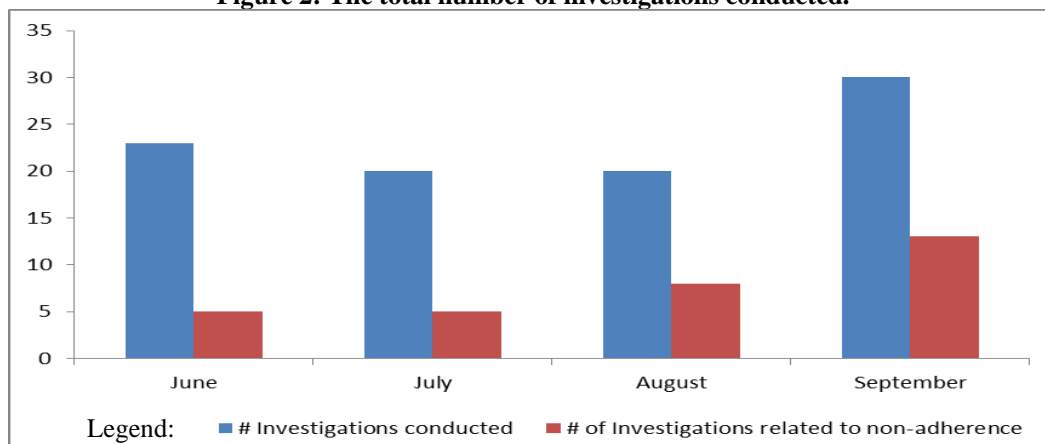


Figure 2 - below shows the total number of investigations conducted during the period June 2014 to October 2014. These investigations were conducted to furnish management with conclusive findings relating to possible fraud, negligence, and/or irregularity and to determine which employees were responsible or contributed for these losses. The results revealed that from the 93 investigations conducted 31 (33%) were related to process non-adherence.

Figure 2: The total number of investigations conducted.



The 33% percent is a very high figure and most of these non-adherences could mainly be attributed to staff negligence. It is therefore evident that most of the issues lie with the identification and verification of customers and their documents. A possible remedy to this would be the introduction of electronic identification process by using biometrics (finger verification) as an additional control to help identify customers. In addition management should enforce and make sure that staffs are held accountable for their actions by taking the necessary disciplinary action when they do not comply with these basic requirements. These mistakes are unnecessary and very costly to the bank from both a financial and reputational perspective.

Figure 3 below depicts the monetary losses incurred as a result of staff not adhering to processes. A total figure of two million ninety-six thousand two hundred and twenty two Rand was recorded (R 2, 096, 224) as a loss for the period June 2014 to October 2014. These Losses impact negatively on the bank's business as it hampers profit growth and strategic success.

Figure 3: Losses as a result of Non-adherence to Bank processes

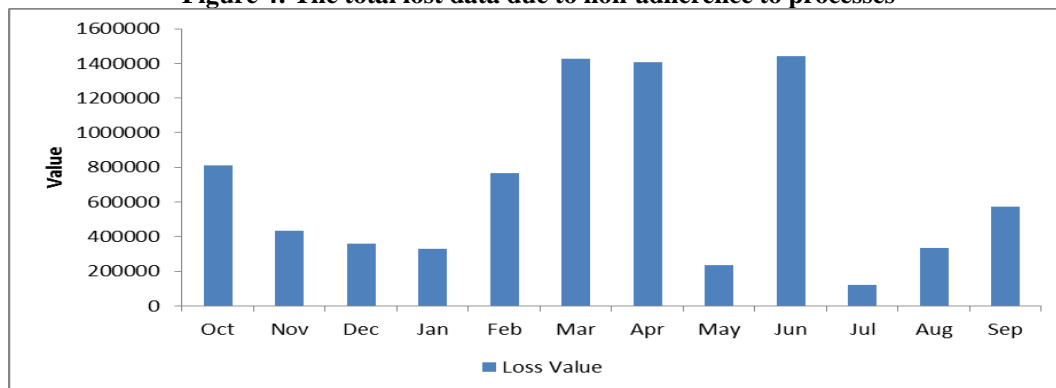


The possible causes to these losses were very similar to what has already been mentioned above. To be able to limit these losses the following remedy is suggested.

- guidelines on how to recover these losses from the non-compliant employees
- frequent reporting and increased level of monitoring of such losses
- Management commitment and buy-in on how to eliminate such losses completely.

Figure 4 below shows the information on data losses that occurred from the period October 2013 to September 2014 as a result of staff not adhering to processes. The expected income of R8, 241, 385.00 was written off in this period of 12 months.

Figure 4: The total lost data due to non-adherence to processes



Information and data is very important to banks in decision making. Processes require proper coordination and information flow. The following cause of data loss was identified as possible reasons for the data losses. In addition lack of attention to detail and pure staff negligence are revealed as the major contributors to these losses. The possible reason of these losses re-occurring is attributed to human errors and if strong action is always taken by management and the consequences of these errors made very severe then the bank is likely to save a lot of money.

CONCLUSION

The purpose of this study was to investigate the reasons why bank staffs are not adhering to processes and what impact these no adherence to processes has on the implementation of strategy. The study has revealed that non adherence to processes not only results in financial losses but also has an impact on the reputation of the bank.

In the analysis conducted there were clear similarities in the findings highlighted by the investigation reports, audit reports and the loss data reports. The most common trend of processes not being adhered to was:

- Identification and verification of customers
- Transactions not authorised according to laid down procedures
- Customers cards not cancelled immediately when reported lost or stole

The research survey shows evidence that the banks incurred unnecessary losses as a result of staff negligence, common errors and out-right fraud resulting inactions detrimental to both a financial and reputational perspective. The banks must therefore consider automating their high risk processes specifically the identification and verification process and the authorisation of transactions process.

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TOWARDS AN INTERSECTIONAL UNDERSTANDING OF ONLINE SERVICE FAILURE AND RECOVERY STRATEGIES

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ABSTRACT

The Internet environment has transformed the concepts of service failure and recovery strategies from a dyadic customer-provider focus into a multidimensional web quality scope. In traditional encounters, the research spectrum of service failure and recovery strategies is very much developed from a customer service approach, and the responsibility of recovery has been traditionally assumed to be something that is assigned to the marketer. Studies pay little or no attention to the multidimensional nature of service failures contingent to recovery strategies in developing countries. To date, empirical studies have focused on service failures and recovery strategies in developed countries. This paper aims to provide some insights on the need for a context-specific development of recovery programmes and strategies suitable for developing countries.

Keywords: Online service failure, recovery strategy, recovery expectations, customer satisfaction, post-recovery behaviour

INTRODUCTION

The Internet environment has transformed the concepts of service failure and recovery strategies from a dyadic customer-provider focus to a multidimensional web quality scope. In traditional encounters, the research spectrum of service failure and recovery strategies is very much developed from a customer service approach, and the responsibility of recovery has been traditionally assumed to be something that is assigned to the marketer, *ceteris paribus* (Bitner, Booms & Tetreault, 1990; Maxham & Netemeyer, 2002; Argo, White & Dahl, 2006; Roggeveen, Tsiros & Grewal, 2012; Sivakumar & Dong, 2014). By contrast, research into online service failure and recovery strategies suggests that understanding is limited to the spectrum of customer-website interactivity and less on the multidimensional nature of computer-mediated marketing environment (CMME) (Hoffman & Nowak, 1996; Ozuem, Howell & Lancaster, 2008).

CMME views online customer behaviour in a different way to traditional behaviour. Indeed, the online environment situates providers in an intense space of market competition, positioning the customer only a click away from switching providers in light of service failure (Ozuem, Howell & Lancaster, 2008; Wang, Wu, Li & Wang, 2011). The CMME itself, together with the intensity of competition, serves as an indicator of very low customer switching and emotional costs (Forbes, Kelley & Hoffman, 2005). Consequently, online customers ignore postservice failure interactivity with the provider even though such activity is intended to recognise such failure and initiate service recovery. In such circumstances, customers can switch to alternative providers. In this fragile online environment, research into service failure and recovery strategies amongst online services has received more attention in understanding the causes of service failure rather than in understating customers' perception on service failure (Meuter et al., 2000; Holloway & Beatty, 2003).

A review of studies examines online service failure and recovery strategies from 2002 (Forbes, Kelley & Hoffman, 2003; Kuo et al., 2011; Ozuem & Lancaster, 2014). Research into online service failure and recovery strategies has succeeded in assigning meaning to online service failures and categorising these into typologies (Forbes, Kelley & Hoffman, 2003; Kuo et al., 2011). Other scholars' attention was directed towards examining the online service failure and recovery strategies on lenses of traditional encounters' antecedents, though fewer antecedents are considered in the online failures (Kuo et al., 2011; Wang et al., 2011; Ozuem & Lancaster, 2014). Such epistemological orientations limit the potential and opportunities inherent in CMME. Understanding service failure depends on individual expectations. Approaching the ontology of customers in the service failure and recovery process should be contextual rather than generic and standardised. Within this scope of approaching customers, Wang et al. (2011) examined their perceptions based on justice theory. The principles of justice theory lay on the equal fairness assessed from all the parties in a society (Mandle, 2009). In service recovery, justice is 'defined as the customer's assessment of the fairness of the way in which service failures are handled' (Wang et al., 2011, p. 352). Wang et al.'s (2011) study reveals that customer perception of fairness is a reflection of the marketer's behaviour towards the customer. Zhu et al. (2013) sought to understand customer perceptions of what causes service failure (such as whether it is the customer's or the provider's fault) through attribution theory. Recently Ozuem & Lancaster (2014) utilised a constructivist perspective to comprehend customer recovery expectations and satisfaction. Studies pay little or no attention to the multidimensional nature of service failures contingent to recovery strategies in developing countries. To date, empirical studies have focused on service failures and recovery strategies in developed countries. This paper aims to provide some insights on the need for a context-specific development of recovery programmes and strategies suitable for developing countries.

THEORETICAL FRAMEWORK AND CONTEXT

The term 'service failure' has grown in popularity as a terminology used by both scholars and practitioners over the last two decades (Ozuem & Lancaster, 2014). Service failure has occurred in numerous research disciplines, including production and management (Craighead, Karwan & Miller, 2004), business (Choi & Mattila, 2008), marketing (Sivakumar, Li & Dong, 2014), consumer behaviour (Argo, White & Dahl, 2006) and the service industry (Chuang, Cheng, Chang & Yang, 2012). Despite the uniqueness of these settings, if analysed together, it is clear that service failure is common to a range of commercial settings, and practical solutions must be attained to address service failures.

Various industries have been researched by scholars examining service failure and recoveries. These industries include fashion (Luo et al., 2012; Ozuem & Lancaster, 2014), the airline industry (Bitner, Booms & Tetreault, 1990; Ringberg, Odekerken-Schroder & Christensen, 2007; Bonifield & Cole, 2008; Roggeveen, Tsiros & Grewal, 2012; Tshin et al., 2014), medical care (Singh, 1990; Choi & Mattila, 2006), hospitality (Bitner, Booms & Tetreault, 1990; Smith, Bolton & Wagner, 1999; Smith & Bolton, 2002; Hess, Ganesan & Klein, 2003; Craighead, Karwan & Miller, 2004; Bonifield & Cole, 2008), grocery shopping (Singh, 1990), automotive repair (Singh, 1990; Craighead, Karwan & Miller, 2004) and the financial industry (Singh, 1990; Maxham & Netemeyer, 2002; Chuang, Cheng, Chang & Yang, 2012). Based on the reach of the analysis, it can be argued that the latter industry is perhaps the least researched area. In marketing and digital marketing research, online service failures and recovery strategies in financial institutions are the most truncated and underdeveloped areas, particularly in developing countries.

Service failure, as a term, can easily be conceptualised, and the definitions in the literature reflect a trajectory of meaning from common ground. Traced back to its early elucidation, Bell & Zemke (1987) stated that service failure 'happens every time our experience of service falls painfully short of expectations' (p. 32). Bell & Zemke (1987) suggested that mismanaging the 'design and deployment of service with laser-like focus on the details' (p. 32) shapes the fluctuating of expectations, that is, service breakdown, which can be identified with two distinct labels. First is 'annoyance' embodied by irritated customers facing a slight shortage on what they have expected (i.e., a minor service failure) (Bell & Zemke, 1987, p. 33). Second is 'victimisation' personified by customers encountering a major failure (Bell & Zemke, 1987, p. 33).

In terms of 'customer expectations', Sivakumar, Li & Dong (2014) proposed that 'service failure entails negative disconfirmation when service performance falls below expectations' (p. 46). To develop upon this idea, Sivakumar et al. (2014) imparted another perspective on service failure as follows: 'With the inherent heterogeneity of services, performance sometimes meets expectations, sometimes falls below expectations ("service failure"), and sometimes exceeds expectations ("service delight")' (p. 41). The term 'heterogeneity' used in the abovementioned definition refers to the multiple providers a customer can interface within the marketplace. It is therefore important to understand the complexity of behaviour amongst customers interfacing with service failures in terms of multiple choices in the market. The focus of Sivakumar et al.'s (2014) study is on the frequency, timing, proximity and sequence of service. Frequency is divided into two: concentrated and dispersed. The first refers to the failure or delight emerging from a single encounter. The second refers to multiple short failures or delights. Timing refers to the momentum of the failure or delight occurrence, whilst proximity is the interval amongst the failures or delights. Sequence compares a failure and a delight based on the importance of each in terms of their awakening series. Sivakumar et al. (2014) proposed that seriously perceived 'service failures' are those with 'dispersed breakdowns, long interludes among failures, and failures rather than delights situated in the closure of the encounter' (p. 53–54).

Yet service failure as a phenomenon is immensely complex and prone to misconceptions and gaps reflected in the literature and with some relevance for practitioners. The literature shows that scholars have been researching service failure from similar grounds/perspectives. Though research on service failure has enriched the literature, there is an unsolved puzzle in the extant research and an additional contribution is a necessity.

The primary idea that explains this complexity generates specifically from the differences amongst customer recovery expectations and that of myopic perception of customers' standpoints in terms of their prospects. In Bell & Zemke's (1987) delineation, the customer's expectation is associated with 'the zone of neutrality' (p.32), that is, the state of equality between 'what was expected' and 'the gain'. When the customer is satisfied with the experience, s/he is situated in the 'delighted zone' (Bell & Zemke, 1987, p.32). By contrast, when the customer is dissatisfied with the experience, s/he will be positioned in the undesirable one. 'On either side of the neutral zone is a memorable experience' (Bell & Zemke, 1987, p. 32). The neutral zone identified by Bell & Zemke (1987) does not provide explanations on how to understand customers' expectations but rather provides the marketer with an overview on the ontological stance that they should take (i.e., the delight zone). To develop upon this, the complexity in the nature of 'self' broadens when conceptualising service failure in the context of 'the delight experience', and this proposition has been advanced by authors such as Rust & Oliver (2000). Rust & Oliver (2000) expressed a view of the 'counter customers' delighters'. The notion articulated in Rust & Oliver's study is that 'critics have suggested that delighting the customer "raises the bar" of customer expectations, making it more difficult to satisfy the customer in the next purchase cycle and hurting the firm in the long run' (Rust & Oliver, 2000, p. 86). Rust & Oliver (2000) also considered the perspectives of the customer forgetting the delight. The essence of customers forgetting the delight is that of not increasing the expectations of self in the sense that the provider is literally not forced to enhance their service above the standards they have already set. If this is the case and customers are not elastic in their choices but rather loyal to a single provider, Rust & Oliver (2000) concluded that delighting customers is a smart customer persuasion technique (p. 92). Some conceptualise the effect of delight on the customer and the provider based on how customers give meaning to delightful experiences. Intrinsically, to the latter group, customers are positioned under different perception grounds of delight, emphasising the enigma behind what a delightful experience is for a customer. Consequently, it is worth exploring how a provider should interact with a customer and what recovery strategy they should provide when service failure occurs.

An additional source of complexity in conceptualising service failure is the divergence within findings in relation to the effect that the 'customer-provider relationship' has on customer expectations and satisfaction when a failure awakens and recovery is provided. The lack of agreement around a structured paradigm as to how compact the relationship should be between the provider and the customer has led scholars and practitioners to debate these issues. Hess et al. (2003) suggested that the customer-provider relationship is complex and that customers interested in long-lasting relationships with a provider are more tolerant of failures, have lower recovery expectations and allocate failures to less stable ones. They are consequently more satisfied with perceptions of recovery (Hess et al., 2003, p. 140). It is suggested here that a more enduring customer-provider relationship is a positive outcome, particularly for providers, in the sense that less recovery effort is required. To the brilliance of irony, one may say, the sublime matter behind this study is the questioning of self. Are those

findings presumptive yet superimpositions of prior studies, or do they reflect the absolute truth of the issue? Reiterating some truth in the ambiguity illustrated in the prior twofold question, the authors themselves accentuated generalisation of findings as an issue (Hess et al., 2003, p. 141).

Hess et al. (2003) analysed customer responses to service failures in the context of prior service relationships, and Hui, Ho & Wan (2011) considered the issue of customer trust developed in terms of customer-provider encounter length. The outcome refers to 'trust' being the sublime indicator of how customers assign meaning whilst justifying responses to service failures. To illustrate this, the authors argue, 'Our studies show that it is not prior relationship per se but rather trust in the service provider that interacts with self-construal to influence consumer responses to service failures' (Hui et al., 2011, p. 74). In contrast to independent customers, it was evident that interdependent ones have less intention to switch and complain in the face of process and outcome failures, particularly if they trust the provider (Hui et al., 2011, p. 74). This emphasises trust building, particularly if the targeted customers are societal interdependent groups (Hui et al., 2011, p. 75). Note that if the customers do not complain, there is a downside for the company: that of the provider having tenuous information about the customer's stance towards the firm—an argument underlined when interdependent customers are considered (Hui et al., 2011, p. 76).

Craighead et al. (2004) called the time from failure occurrence to when the provider becomes aware of the failure 'the pre-recovery phase' (p. 309). Regardless of the attempt of marketers to develop the optimum scenario, that is, minimising the pre-recovery phase, and aiming to develop a pure recovery encounter with the customers—a concept explained by the literature as the 'service communality' (see Ringberg et al., 2007, p.194 for the original authors of the concept)—they still face a state of unenviable 'commercial friendship' (Ringberg et al., 2007, p. 194). One possible reason for the prolonged pre-recovery phase can probably be explained by the suggestion of Bougie, Pieters & Zeelenberg (2003). They proclaimed that 'most dissatisfied customers generally do not bother to complain' (Bougie et al., 2003, p. 390). Therefore, it is difficult to conceptualise the customer's stance solely by making assumptions. It can be difficult for service employees to recognise dissatisfaction if the customer does not 'provide' a readable sign.

The idea advanced by Bougie et al. (2003) is the understanding of 'customer's behavioral responses to failed service encounters' (p. 377) subject to two emotional responses: dissatisfaction and anger. 'To explain dissatisfaction and anger, authors considered the following behavioural responses: switching, complaining, and negative word-of-mouth (WOM)' (Bougie et al. 2003, p. 378). 'Dissatisfaction was found to be a significant predictor' (Bougie et al. 2003, p.390) of the first response, whilst anger is significant to the entire list of responses (Bougie et al. 2003, p.390). The authors suggested that 'findings appear to be in contrast with earlier work' (Bougie et al. 2003, p. 389) and create room to criticise how we understand the mental scope of customers following service failure behavioural responses. What they do not provide is an elaboration of the providers' ability to understand the mental state of the customer.

In terms of the emotional responses, the complexity in conceptualising service failures is subject to debate around two emotional approaches: variance-based and specific emotions (Zeelenberg & Pieters, 2004). The first approach typically situates perceptions of customers as either positive or negative, ignoring any explanation along this spectrum (Zeelenberg & Pieters, 2004, pp. 445–446). By contrast, the latter approach considers literally everything about customer responses, from what they say through to their body language. All of these signs reveal much about customer mental perceptions, as illustrated in Zeelenberg & Pieters' (2004) discussions. These authors suggested that a specific emotions approach 'requires insight into the specific antecedents, phenomenology, and consequences of different emotions' (Zeelenberg & Pieters, 2004, p. 446). Zeelenberg & Pieters (2004) questioned the variance-based approach. Instead they argued that customer perceptions of failure should be analysed through the specific emotions approach elaborated upon through appraisal emotion theory (see Zeelenberg & Pieters, 2004, p. 446 for authors on appraisal emotion theory). They suggested that it is this approach that offers theory to comprehend the mental contour of customers. The analysis of the specific emotions approach centres on two emotions, namely, regret and disappointment (Zeelenberg & Pieters, 2004). They examined four behavioural responses, which they labelled switch, inertia, complaining and word-of-mouth based on these emotions. A synopsis of their findings suggests (1) switching and word-of-mouth are related to blended regret and disappointment; (2) complaining is related to disappointment although not to regret, and this variance is justified by the idea that customers assign their own responsibility to regret (Zeelenberg & Pieters, 2004, p. 452); and (3) inertia has a modest relationship with regret and disappointment

and can be considered unique in the context of this model (Zeelenberg & Pieters, 2004, p. 453). Complaining is perhaps the factor that exerts the greatest influence on mitigating customer perceptions of inertia (Zeelenberg & Pieters, 2004, p. 453).

Early literature relating to service marketing that focuses on analyses of role theory reflects a morphology outcome on customers and employees across common and blended responsibilities (Solomon et al., 1985). That is, not only employees are considered responsible for customer satisfaction, but the customers themselves are also considered in such discussions. Based on role theory, customers are more or less considered in terms of learned and systematic behaviour, identified as the *mindless* concept (Solomon et al., 1985, p. 106), whereas the position of employees is explained across *intra-role congruence*, specifically ‘the degree to which the service provider’s concept of his/her role accords with the organization’s conception of that role’ (Solomon et al., 1985, p. 104) and *inter-role congruence*, specifically ‘the degree to which provider and client share a common definition of service roles (Solomon et al., 1985, p. 104). It follows that the service provider expects from customers an equivalent response to prior responses and a change to their behaviour only when a service encounter deviation arises (Solomon et al., 1985). The closer the employee is to the intra- and inter-roles, the more positive the provider-customer encounter will be (Solomon et al., 1985). The salient interpretations that emerge from the abovementioned discussions (see Solomon et al., 1985). are as follows: First, regardless of the responsibility of customers, there are no ‘rules’ that spell out an ideal employee-customer interaction, and it is the employees’ duty to design and influence service encounters and satisfaction. They must be able to understand customer expectations. Second, regardless of the degree to which a customer remains stable from one encounter to another, there is always the possibility of deviation, and the difficulty of managing service encounters remains problematic.

MANAGERIAL IMPLICATIONS AND CONCLUSION

Omitting employees from service encounter process ‘ingredients’ is a critical issue that can influence the treatments of service failure phenomenon (Bell & Zemke, 1987; Bitner et al., 1990). Though research espouses the centrality of employee empowerment, it continues to be a salient theme in the literature but one that is perhaps overlooked by practitioners. By its very nature, employee empowerment is identified as a form of ‘knowledge’ and ‘control’ (Bitner et al., 1990, p.82). Knowledge refers to information imparted to employees (for example, on service standards, delivery process and service characteristics, amongst others), whereas the freedom of employees to make decisions is assigned to ‘control’ (Bitner et al., 1990). Knowledge will help the provider understand what is wrong with the service, whereas control will assign the right to recovery decisions to the employee (Bitner et al., 1990). The endorsement that “the customer is always right” is not enough (Bitner, 1990, p.82). In fact, they can be wrong and can even be insulting, according to Bitner et al. (1990, p. 82). Based on their arguments, customers can be very unpredictable. Therefore, employees should have adequate knowledge and the decision-making freedom to successfully handle the encounter.

If a chronological examination of studies in this subject is undertaken, a key concern that may arise is how to situate, define and discuss failure and service recovery using a selective approach rather than considering the two comprehensively. Recently Sivakumar et al. (2014) questioned the researching of service failures alongside service recovery. They argued that most of the research approaching service failure focuses on types of recovery strategies, antecedents, mediators and recovery consequences (Sivakumar et al. 2014, p.42). Prior to this work, to some extent, Choi & Mattila (2008) criticised conceptualisations of service failure in tandem with recovery outcomes. A comprehensive approach of service failure and recovery strategy helps scholars justify their studies. However, it leaves the literature prone to subjective interpretations of service failure and recovery strategy as separate topics. This does nothing to clarify discussions of what is ultimately a complex debate within the subject.

The earlier sections suggest that service failure is highly significant to the provider. However, service failures can mitigate negative consequences through effective recovery strategies (Craighead et al., 2004). There are arguments that service recoveries can even enhance customer-provider relationships, yet extant ‘research has shown that more than half of attempted recovery efforts only reinforce dissatisfaction’ (Casado-Diaz & Nicolau-Gonzalbez, 2009, p. 1659). Thus, service failure continues to be portrayed within unclear boundaries.

Conceptualising service failure and identifying intrinsic recovery strategies to cope with it are useful to assess failure types alone so that a better understanding can be provided.

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THE IMPACT OF THE BUILT ENVIRONMENT ON THE PHYSICAL ACTIVITY AND BMI OF HIGH-SCHOOL PUPILS IN A SEMI-URBAN AREA

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ABSTRACT

Recent public health research has drawn the attention to the negative impacts of the built environment on health conditions such as physical inactivity. Research have shown that physical inactivity may be considered as one of the leading causes of chronic diseases and contributes significantly to total mortality and literature suggests that the built environment may impact negatively on physical activity. The purpose of the study was to examine the influence of the built environment on the physical activity levels and Body-Mass-Index values of high school pupils from a semi-urban area. A structured questionnaire assessing the perceived intensity of specific physical activity participation and the built environment of the community was voluntarily and anonymously completed by 155 high school pupils from a semi-urban area in the Vaal Triangle. The Neighborhood Environment Walkability Scale (NEWS) was utilized and the Body Mass Index of respondents calculated. Results showed that the built environment seemed to negatively influence their physical activity, with perceived lack of safety (72.7%), street planning (68.2%), traffic safety (64.3%), neighborhood surroundings (69.5%), facility access (61.7%) and lack in walking and cycling space (59.1%) as the main constraining factors. The majority of the pupils (93%) had to actively commute far distances to reach their school, recreational- or fitness facilities. Less than a third (27.7%) of the pupils participated in mild exercise, with just over a third (39.2%) participating in moderate exercise. A mere forty-three percent of the pupils participated in strenuous activity. The majority of pupils (71%) have to actively commute far distances to school each day, being their primary form of physical activity. This proves that school children are only physically active while participating in school sport, with very few opportunities of other physical activity engagement due the negative impact of the built environment. The combined BMI categorization of 29.2% of the girls as over-weight or obese is alarming and could pose a possible health risk. The results show a definite need for a comprehensive strategy by community planners to improve the current built environment of this semi-urban area to become more conducive to physical activity participation.

Keywords: Built environment, physical activity, BMI, semi-urban area

INTRODUCTION

Public health research has drawn the attention to the negative impacts of the community built environments on health conditions such as physical inactivity (Cooper & Theriault, 2008; Mujahid, Roux, Morenoff, & Raghunathan, 2007). Physical inactivity constitutes a major public health concern related to social and economic costs (Colditz, 1999) since it is categorized as a primary risk factor for coronary heart diseases, contributing significantly to mortality (Wendel-Vos, Droomers, Kremers, Brug, & Van Lente, 2007). In South Africa studies indicated that physical inactivity among black men and women living in the Cape Peninsula were high with only 54% of 25-34 year old and 58% 45-64 year old people who participated predominantly in light intensity exercises (Sparkling et al., 1994). Evidence prevail an increase in physical inactivity among adolescents from their teenage years into adulthood (Kemper, Twisk, Koppes, Van Mechelen, & Post, 2001). According to Kriska (2000) socio-economic background contribute tremendously towards adolescents' physical inactivity where children from rural communities participate less regularly in sport and physical activities due to a lack in

facilities and accessibility (Nahas, Goldfine, & Collins, 2003). Community environments, demographic groups and the built environment are some of the factors affecting physical inactivity among black adolescents from a semi-urban community (Cooper & Theriault, 2008; Duhurup & Grobler, 2012).

Built environment and physical activity

The built environment refers to all structures developed by humans within an area and is classified into macro (sectors mutual to the wider population) and micro (settings closer to the individual) sectors (Boehmer, Hoehner, Wyrwich, Ramirez, & Brownson, 2006). Macro built environmental influences on physical activity include transportation systems, street networks and population density (Frank, Engelke, & Schmid, 2006). Micro built environmental aspects refer to access and proximity to facilities, community design, safe streets, aesthetics and presence of sidewalks and neighborhood settings which may affect physical activity negatively (Booth, Pinkston, Walker, & Poston, 2005). In this regard Humple, Owen, and Leslie (2002) advance the accessibility to recreational facilities significantly impact physical activity while Saelins, Sallis, Black, and Chen (2003b) indicated a relationship between neighborhood environment, transportation and physical activity participation. Neighborhoods characterized by higher residential density, grid-like street patterns and short block lengths engage residents more in walking and cycling (Saelins et al., 2003b). On the contrary, factors such as crime, damaged sidewalks, lack in street lighting and heavy traffic negatively impact physical activity (Ball, Bauman, Leslie, & Owen, 2001).

Physical activity and BMI

Physical activity is an important health-maintenance strategy for adolescents and contributes to the strengthening of bones, reduction of cardiovascular risk factors and weight control (Ganley & Sherman, 2000). Adolescents who participate in high amounts of high intensity activity have a lower percentage body fat (Gutin, Yin, Humphries, & Barbreau, 2005). Wildschutt (2005) posit that sufficiently active school children from a rural Western Cape community had low mean scores for weight and Body-Mass-Index (BMI). BMI is a simple index of weight-for-height that is commonly used to classify underweight, normal, overweight and obesity in children and adults (World Health Organization, 2005). Literature indicates the relationship between physical activity, weight and BMI and that these relationships are influenced by factors such as the built environment within a semi-urban community.

Purpose of the study

The purpose of the study is to examine the influence of the built environment on physical activity and BMI of high school pupils in a semi-urban area. The consistent link between built environmental factors and physical activity remains a significant research area which provides valuable information for government and developers in their endeavor to create and develop functional environments promoting physical activity (Sallis & Glanz, 2006). Research concerning youths and the effect of the built environment on their physical activity is scarce, and therefore necessitates research concerning this aspect (Sallis & Glanz, 2006). Identifying infrastructure inadequacies within semi-urban areas and its effect on physical activity may assist in the development of interventions and policies by town developers to enhance active lifestyles and reduce the escalating prevalence of chronic diseases and obesity rates (Boehmer et al., 2006).

METHOD AND PROCEDURE

This study was conducted in Bophelong, a semi-urban low income residential township in Southern Gauteng, South Africa. According to Slabbert and Sekampu (2009), 66.3% of the residents in this area is poor with an unemployment rate of 62.2%. This area was chosen because of the low socio-economic status and the prevalence of low physical activity, lack in facilities and the subsequent higher rates of health related problems (Kriska, 2000; Nahas et al., 2003). High school pupils between the ages of 13 and 19 years voluntarily and anonymously participated in the research project. Trained fieldworkers assisted with data collection. A modified version of the Neighbourhood Environment Walkability Scale (NEWS) was used to obtain the perceptions of neighbourhood

characteristics from the pupils and how positively or negatively it impacted on their physical activity levels (Saelens, Sallis, Black, & Chen, 2003a). The questionnaire was adjusted to suit the local community educational level and semi-urban environment and contained questions regarding aspects such as stores, facilities, neighbourhood satisfaction, safety, access to facilities, traffic and street layout. The Godin-Shepard Leisure Time Exercise Questionnaire (G. R. Godin & Shepard, 1985) was used to assess the self-reported leisure time activity. The activities are divided into four categories namely: 1) Strenuous exercise, 2) Moderate exercise, 3) Mild exercise and 4) Walking (G. Godin, 2011). The pupils' Body-Mass-Index (BMI) was calculated after obtaining their height and weight.

RESULTS

Table 1 indicates the descriptive statistics of the pupils.

Table 1: Descriptive statistics of participants

Demographic information	
Gender	
Male	47.1%
Female	52.9%
Age group	
13 years	4.6%
14 years	13.1%
15 years	20.3%
16 years	20.9%
17 years	20.3%
Ethnic group	
African	98.6%
Indian	0.7%
Coloured	0.7%

* Some totals may not equal 100% as some categories have been omitted to facilitate comparison

A total of one hundred and fifty five high school pupils participated voluntarily and anonymously in completing the questionnaires. From this group, 47.1% (n=72) were boys and 52.9% (n=83) were girls which renders a good equitable distribution. Of the one hundred and fifty five participants, 61.5% were between the ages of 15 to 17 years and could be classified as adolescents. An overwhelming 98.6% was classified under the black ethnic group.

Table 2: Mean ranking of the built environment facilities in descending order

CATEGORIES OF ENVIRONMENTAL PLANNING	N	MEAN	STD
Cronbach alpha $\alpha = 0.71$			
Safety from crime	154	2.75	0.57
Street planning	154	2.56	0.28
Neighbourhood surroundings	154	2.53	0.59
Traffic safety	154	2.46	0.40
Facility access	154	2.45	0.40
Walking and cycling	154	2.43	0.56

Table 2 describes the mean ranking in descending order of the respondents' perceptions regarding the facilities and its negative impact on their physical activity participation within the community. The scale rendered a Cronbach alpha of 0.71 and according to Nunnally and Bernstein (1994) values of 0.70 or above may be considered good and therefore the reliability of the items may be applied in similar settings in future research. The various built environment factors were based on a four point Likert scale. Pupils indicated that *safety from crime* during day and night time was the major constraining factor ($M=2.75 \pm 0.57$), followed by *street planning*

($M=2.56 \pm 0.28$) referring to walkways, dead-end streets and alternative routes. The third most constraining factor was neighbourhood surroundings ($M = 2.53 \pm 0.59$) such as scenery and landscaping created, with *traffic safety* ($M = 2.46 \pm 0.40$) a concern for walking and cycling. *Facility access* ($M = 2.45 \pm 0.40$) is the fifth constraining factor, referring to aspects such as speeding and a lack in traffic calming measures in the neighbourhood. *Walking and cycling* ($M = 2.43 \pm 0.56$) is the last built environment factor and refers to bicycle and pedestrian trails available and the condition thereof.

Table 3: Physical activity intensity

Day of week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Average
Activity	%	%	%	%	%	%	%	%
Strenuous Exercise	32.9	51	43.9	45.8	40.6	42.6	47.1	43
Moderate exercise	31.6	43.9	40.6	43.9	39.4	42.6	32.6	39.2
Mild exercise	31	34.2	22.6	27.1	23.9	26.5	29	27.7
Walking	49	82.6	78.7	80.6	79.4	83.2	43.2	71

Table 3 presents the self-reported physical activity levels into the four categories. From the one hundred and fifty five participants, on average less than half of the pupils (43%) indicated to participate in strenuous activities such as running, soccer, hockey, basketball, cross country and long distance running on a daily basis for more than 15 minutes. On Mondays the highest percentage (51%) participated in strenuous activities, followed by 47.1% on Saturdays with Wednesdays (45.8%), Tuesdays (43.9%) and Thursdays (42.6%). Moderate exercise participation including easy cycling, volleyball and easy swimming were reported by an average of 39.2% participants. Mondays, Wednesday (both 43.9%) and Fridays (42.6%) were reported as the days with the highest moderate activity participation with Saturdays and Sundays with the lowest (32.6% and 31.6% respectively).

Less than a third of the pupils on average (27.7%) acknowledged engaging daily in mild exercises which refers to activities requiring minimal effort such as yoga, fishing, bowling, golf and archery. The highest percentage of pupils (34.2%) engaged in mild exercise on a Monday, with levels ranging from 31% to 22.6% of pupils mildly active on the other days. Walking from home and from place to place was indicated on average by 71% as a daily activity, with lowest activity by students on Saturdays (43.2%) and Sundays (49%). On Fridays 83.2% pupils indicated to walk more than 15 minutes, on Mondays 82.6% and on Wednesday 80.6%.

Table 4 presents the gender related body mass index (BMI) classifications according to the World Health Organizations' international classifications.

Table 4: BMI classification according to gender

CATEGORIES	BOYS	%	GIRLS	%
Underweight (BMI: 18.5>)	26	36.1	11	13.3
Normal weight (BMI: 18.5 – 24.9)	41	56.9	48	57.8
Overweight (BMI: 25.0 – 29.9)	4	5.6	17	20.5
Obese (BMI: 30.0<)	1	1.4	7	8.4
Total	72	100	83	100

The majority of the boys (56.9%) have a normal weight category according to their BMI classification, with twenty six (36.1%) classified as underweight. Only 5.5% of the boys are classified as overweight and 1.4% as obese. More than half of the girls (57.8%) are classified as having a normal weight, with 13.3% in the underweight category, 20.5% in the overweight and 8.4% in the obese categories.

DISCUSSION

Built environment facilities and physical activity

Safety against crime rendered the highest mean value and subsequently seems as the major obstacle of the environment regarding physical activity and participation. Pupils feel unsafe in their community due to a high crime rate which makes it unsafe to walk during day and night time (72.7%) with ineffective street lighting provided by municipality as a contributing factor. According to Proshaska (2009) this is a constricting factor, since crime prevents pupils to walk to reach recreation and sport facilities when intended to be physically active. *Street planning* (68.2%) refers to the distance between intersections, number of dead-ends, walkways that connect dead-ends and the number of alternative routes available. The lack in proper planning regarding these aspects hinders physical activity since Saelins et al. (2003b) indicated that grid like street patterns with short block lengths increase walking and cycling. Another constricting factor refers to the *neighbourhood surroundings* (69.5%) where pupils indicated a lack in natural and attractive sights and views in their neighbourhood, a lack in trees along the streets and a lack in shading to walk. Environmental aesthetics are important in providing cues and opportunities for physical activity (Brownson et al., 2004) and thus in this instance another aspect of the built environment affecting physical activity negatively. *Traffic safety* posed a concern for the pupils (64.3%) regarding drivers exceeding the speed limits, a lack in proper pedestrian signals and crossings and the amount of heavy vehicle exhaust fumes. The built environment factor of *facility access* (61.7%) indicated that a gym, fitness centre or recreation centre was a distance away and not easily accessed. Furthermore, pupils also had to walk far distances to their school. This indicates that *facility access* poses a problem in the community since proximity of facilities and physical activity have a positive correlation (Reed & Phillips, 2005) and that pupils have to actively commute long distances to reach their school or recreational facilities (Van Den Berg & Grobler, 2014). *Walking and cycling* was identified as the lowest mean ranking factor whereby pupils were of the opinion that there are very little bicycle or pedestrian trails in their neighbourhood and that a lack in sidewalks and pavements on most of the streets (59.1%) makes walking and cycling difficult. This correlates with findings by Proshaska (2009) that states a negative correlation between damaged or a lack in sidewalks and physical activity.

Physical activity and BMI

High school pupils from low income communities demonstrate less participation in sport and physical activities mainly due to a lack of accessibility and lack of access to sport and recreational facilities (Coetzee, 2003). The majority of pupils (71%) walk far distances to their high school emphasizing the tendency in numerous parts of the world within low socio-economic communities where children are forced to actively commute on a daily basis to and from school (Prista, Maia, & Marques, 1997). Even though active commuting contributes to the overall physical activity levels of pupils it is alarming that this type of exercise constitutes primarily to the activities of pupils within this semi-urban area. Pupils mainly indicated physical activity as a means of transport and less than half of them on average (43%) participated in sport or physical education at school since the strenuous exercises pupils reported to engage in may be attributed to sport activities such as soccer and netball at school (Lennox, Pienaar, & Coetzee, 2007). The pupils' low activity levels may be a contributing factor to the BMI classification of 20.5% of the girls into the overweight category and 8.4% classified as obese.

CONCLUSION

Results indicate a negative perception and influence of the built environment on the physical activity of high school pupils in a semi-urban area. Factors such as the accessibility of facilities, street planning, safety, inadequate walkways, cycling paths and unattractive neighbourhood surroundings inevitably impede with high school pupils accessing gym, fitness or recreational activities in the community. With less than half of the pupils mainly participating in school related sport, the situation may arise that when these pupils graduate from school, very few opportunities are available for sustained physical activity within this semi-urban area. With a portion of the girls in the study already classified as overweight and obese, the negative influence of the built environment on physical activity should be addressed through a comprehensive strategy by community planners to improve the current built environment of this semi-urban area. This will be conducive to higher physical activity participation.

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ORGANIZED MINI-RUGBY SCHOOL SPORT PARTICIPATION EXPERIENCES: A COMPARATIVE STUDY BETWEEN SCHOOLS

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ABSTRACT

Schools are powerful educational and socializing agents and significantly impact children's organized school sport participation experience. The aim of this study was to assess differences between schools within the Vaal Triangle area in the Gauteng province with regard to mini-rugby sport participation experiences of Grade 1 and Grade 2 players. For the study, 192 boys completed an adapted version of the Sport Competition Anxiety Test (SCAT) and the Competitive State Anxiety Inventory (CSAI-2) (Martens, Vealey & Burton, 1990), measuring cognitive and somatic anxiety, self-confidence and related negative aspects, such as spectator behavior influence, withdrawal and the winning motive. Analysis of variance (ANOVA) indicated statistically significant differences between schools regarding organized school sport participation experience of players on aspects related to enjoyment, pressure, anxiety, spectator behavior and the win motive ($p < 0.005$). Results of this study are indicative of different school mechanisms, management of organized sport, school values and behaviors by teachers, parents and coaches towards sport and the negative influence on participation experiences.

Keywords: Organized mini-rugby, school sport participation

INTRODUCTION

Children spend a large part of their day at school interacting with teachers and peers with different attitudes regarding sport participation behavior and various physical surroundings (Kristensen et al., 2013). The school is therefore the most likely and powerful socializing and sport development agent in children's lives and influences the establishment of physical activity and sport participation experiences (Kristensen et al., 2013). Children benefit through organized school sport via favorable physical and positive psycho-social skills development opportunities (Hardy, Kelly, Chapman, King, & Farrell, 2010) with potential increases in self-esteem and self-confidence, together with physical health as some of the positive outcomes. However, organized school sport does not just influence children positively but also negatively, with effects such as anxiety, stress and, ultimately, withdrawal for the young participant (Merkel, 2013). Sport participation and experience are known to be influenced by various factors such as the grade level, time of year and school sport programs offered (Murray et al., 2006). Likewise, school teachers, coaches and parents also have the potential to exert a positive as well as a negative influence on school sport participation (Trudeau & Shephard, 2005). A significant difference in sport participation experience may indicate that schools regulate children's sport participation and behavior according to the social and environmental circumstances they share.

The sporting environment is strongly influenced by the parents, coaches and peers (Walters, Schluter, Oldham, Thomson, & Payne, 2012) and research has indicated that practices by these agents and their involvement can influence children's sport participation positively or negatively (Bois, Sarrazin, Brustard, Trouilloud, & Cury, 2005). Positive parental involvement such as encouragement, support and a balanced view of winning may enhance participation aspects such as fun, enjoyment of learning new skills and participation motivation (Bloom, Crumpton, & Anderson, 1999). On the contrary, negative parental behavior such as

disrespect towards coaches and officials, abusive side-line language during matches or an over emphasis on the winning aspect, may exert a burden on children leading to anxiety and pressure experienced (Kohn, 1992). Positive behavior by coaches includes a balanced approach to winning, focusing on enjoyment and the development of the athlete and his/her skills (Martens, Vealy, & Burton, 1990), resulting in the children's sport experience of fun, sense of accomplishment and physical development (Baker, Horton, Robertson-Wilson, & Wall, 2003). However, the coaches' beliefs and philosophy regarding sport may be focused on winning (Walters et al., 2012), consequently augmenting result driven behavior which leads to children's increased pressure to perform, elevated anxiety, higher drop-out rates and decreased enjoyment (McCarthy, Jones, & Clark-Carter, 2008).

Mini-rugby school sport

The International Rugby Board (IRB) introduced mini-rugby as a means of increasing participation in the sport through the adaptation of the playing field and rules in order to facilitate skill development and enjoyment (Rutherford, 1993). However, within the South African school rugby set-up, schools have the authority to change the original non-competitive and developmental focus of mini-rugby to reflect the values regarding competition and youth sport participation of the particular school. The need for this study arose from media reports concerning inappropriate school sport values, attitudes and behaviors as portrayed by school teachers, coaches and parents (Cilliers, 2013). The objective of this study was to explore the difference in mini-rugby school sport participation experiences of players from different schools. To address the impact of different school set-ups and values regarding sport, there is a need to study differences between the participation experience of children in organized school sport (Kristensen et al., 2013). Research concerning the difference in sport participation experience may provide indirect evidence of the extent to which children's sport participation is modifiable by external values and attitudes (Kristensen et al., 2013; Trudeau & Shephard, 2005).

METHOD AND PROCEDURE

A non-probability sampling design in the form of convenience sampling was used to collect data over a two-week period. This method was chosen because it was inexpensive and efficient. In order to overcome the shortcomings of this method, a large sample group was targeted (Sekaran, 2003).

Participants

Six mainstream schools in the Vaal Triangle area in the Gauteng province that presented mini-rugby as an organized sport were requested to participate in the study, of which five schools accepted on the condition of remaining anonymous. Schools will be referred to as "School 1", "School 2" etc. First and second grade boys, who participated in the current mini-rugby season, were recruited to complete a questionnaire voluntarily and anonymously after a parent granted written permission. The boys' ages ranged from six to eight years, and the researchers, supported by a research colleague as well as the boys' school teachers, administered the questionnaire in a controlled environment.

Measuring instrument

A two-section questionnaire was used to collect data for the study. Section A requested demographic information, and Section B contained 37 items comprising six subscales, namely enjoyment, pressure, anxiety, spectator behavior, withdrawal and winning motive. This questionnaire was adapted by Raubenheimer and Le Roux (2008), using the Sport Competition Anxiety Test (SCAT) and the Competitive State Anxiety Inventory (CSAI-2) developed by Martens, Vealy and Burton (1990). Scales measuring self-confidence (Martin & Hall, 1997) and negative aspects of sport participation such as withdrawal (Cahill & Pearl, 1993) were also included. Items were scored using a four-point Likert-type scale, anchored at one (usually) and four (always). The questionnaire rendered a Cronbach alpha of 0.88 in Raubenheimer and Le Roux's (2008) study.

Data collection

The questionnaire administered by Raubenheimer and Le Roux (2008) was performed on children between the ages of nine to 13 years; hence, an adaptation of the questions was necessary to suit the age-specific language and vocabulary of the six to eight year old mini-rugby players. Limitations in using survey measures with young children are evident since their level of literacy and cognitive capacity is still under developed (Dollman et al., 2009). However, this study followed the approach of Roets (2002), whereby individual attention was given in administering surveys to the young children, and correspondingly the reading and language constraints were overcome. Furthermore, expert researchers and school teachers pre-tested the instrument and found the content to be simple, readable, age appropriate and administrable. The researchers, together with teachers, explained the questions using unadorned language and by referring to examples, thus ensuring that the participants understood each question before they chose their answer.

RESULTS

The data were captured and analyzed using the Statistical Package for the Social Sciences (SPSS – Version 20). Descriptive statistics indicate that 52.1 percent of the boys were in Grade 1 (played in the under-7 category) with 47.9 percent in Grade 2 (played in the under-8 category). All of the respondents had their first exposure to rugby through organized school sport in the form of mini-rugby. A total of 202 boys completed the questionnaire of which 20 responses were incomplete or inadequate for inclusion in the study rendering 192 responses at a rate of 95 percent. Table 1 provides the relatively equal distribution of participants between schools.

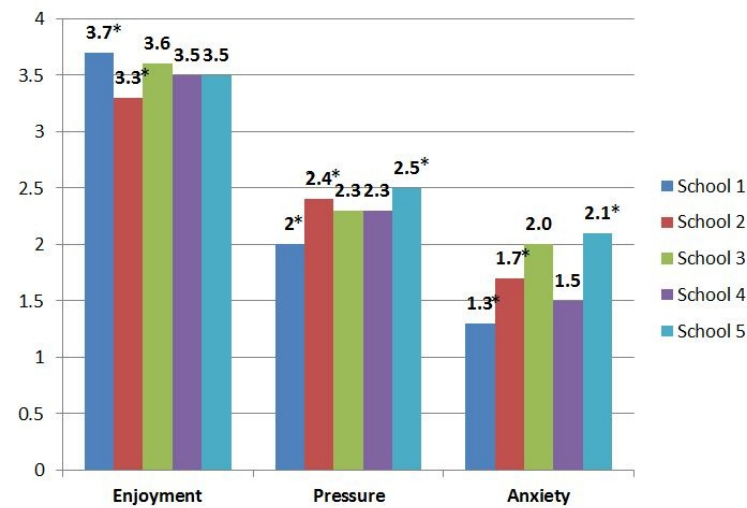
Table 1: Distribution of participants between different schools

	Boys		Total
	Grade 1	Grade 2	
Sample size (N)	100	92	192
School 1	18	22	40
School 2	25	22	47
School 3	30	15	45
School 4	11	17	28
School 5	16	16	32
% of group	52.1%	47.9%	100%

The Cronbach alpha for the scale was 0.846, with individual construct Cronbach alphas for enjoyment at 0.677, pressure 0.666, anxiety 0.805, spectator behavior 0.615, withdrawal 0.614 and winning motive 0.638. Nunnally and Bernstein (1994) suggest that values of 0.70 or above may be considered acceptable, but according to a study by Kim and Kim (1995), a coefficient of 0.5 to 0.6 can be regarded as sufficient, and, therefore, due to the exploratory nature of the study, all constructs (Cronbach alpha >0.6) were deemed satisfactory for discussion purposes. Inter-item correlation values for all six constructs are, according to Clark and Watson (1995), satisfactory as they ranged between 0.15 and 0.50. Inter-item correlation values of 0.246, 0.180, 0.263, 0.248, 0.351 and 0.231 were obtained for the enjoyment, pressure, anxiety, spectator behavior, influence withdrawal and winning motive constructs respectively and indicates a good convergence of validity.

Graphs 1 and 2 report on the mean values obtained by the mini-rugby players for the different constructs, as per school. ANOVA tests were conducted to assess the statistical significant differences between the schools regarding the mini-rugby players' participation experience. Table 2 represents the analysis of variance (ANOVA) between schools with statistical meaningful differences indicated by $p < 0.05$. There was a statistically significant difference at the $p < 0.05$ in participation experience of the boys between the schools regarding enjoyment, pressure, anxiety, spectator behavior and the winning motive. There was no statistical significant difference between the schools regarding withdrawal from participation. Tukey's Post Hoc tests were conducted to determine where the majority of variance was for these constructs and due to the length of the table will not be included in the paper but will be discussed as part of the results.

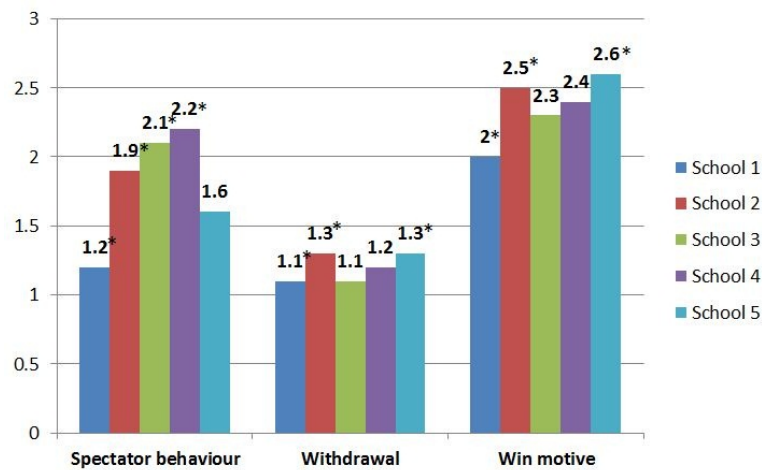
Graph 1: Mean values of mini-rugby players from different schools



M= mean values

* Statistical significant differences between mean values

Graph 2: Mean values of mini-rugby players from different schools



M = mean values

* Statistical significant differences between mean values

Table 2: Analysis of variance (ANOVA) between schools

Construct		Sum of Squares	df	Mean Square	F-ratio	Sig
Enjoyment ($\alpha = 0.677$)	Between groups	4.230	4	1.058	4.317	0.002*
	Within groups	45.808	187	0.245		
	Total	50.039	191			
Pressure ($\alpha = 0.666$)	Between groups	5.547	4	1.387	5.561	0.000*
	Within groups	46.637	187	0.249		
	Total	52.185	191			
Between groups		14.615	4	3.654	13.704	0.000*

Anxiety ($\alpha = 0.805$)	Within groups	49.859	187	0.267		
	Total	64.475	191			
	Between groups	22.474	4	5.618	12.058	0.000*
Spectator Behavior ($\alpha = 0.615$)	Within groups	87.130	187	0.466		
	Total	109.603	191			
	Between groups	1.803	4	0.451	1.585	0.180
Withdrawal ($\alpha = 0.614$)	Within groups	53.155	187	0.284		
	Total	54.958	191			
	Between groups	8.868	4	2.217	6.834	0.000*
Win motive ($\alpha = 0.638$)	Within groups	60.660	187	0.324		
	Total	69.528	191			

*Significant at $p < 0.05$

The Tukey Post Hoc test indicated that the mean score regarding *enjoyment* for School 1 ($M = 3.7$, $SD = 0.42$) was significantly different from School 2 ($M = 3.3$, $SD = 0.53$). The *pressure* construct rendered a significant difference between School 1 ($M = 2.0$, $SD = 0.44$) and School 2 ($M = 2.4$, $SD = 0.56$) and School 5 ($M = 2.5$, $SD = 0.33$). Regarding *anxiety*, significant differences existed between all the schools except for School 4. Differences are indicated by the following values: School 1 ($M = 1.3$, $SD = 0.37$), School 2 ($M = 1.7$, $SD = 0.48$), School 3 ($M = 2.0$, $SD = 0.65$) and School 5 ($M = 2.1$, $SD = 0.55$). School 1 ($M = 1.2$, $SD = 0.49$) differed significantly from School 2 ($M = 1.9$, $SD = 0.72$), School 3 ($M = 2.1$, $SD = 0.86$) and School 4 ($M = 2.2$, $SD = 0.60$) regarding *spectator behavior*. A further significant difference of the means score for *winning motive* was achieved between School 1 ($M = 2.0$, $SD = 0.35$), School 2 ($M = 2.5$, $SD = 0.62$), School 4 ($M = 2.4$, $SD = 0.47$) and School 5 ($M = 2.6$, $SD = 0.72$).

DISCUSSION

Results indicate a clear difference in mini-rugby participation experience of the boys from School 1 compared to the four other schools. Youngsters from School 1 exhibit a significantly higher *enjoyment* of their sport participation and experience significantly less *pressure*. Likewise, the boys from School 1 also experience significant less *anxiety* and the *spectator behavior* does not influence them as much as players from other schools indicated. No statistical significant differences regarding *withdrawal* from mini-rugby reported by all school boys are indicative that even though a number of boys experience negative aspects regarding sport participation, they are still interested in playing the game. This is confirmed through findings by Siegenhalter and Conzaes (1997) who state a sharp increase in withdrawal from sport only during the adolescent years. Teachers, parents and coaches from School 1 clearly have a different philosophy regarding the *winning motive*. This is indicated by the statistical significant difference of the boys' experience of the *winning motive* as encouraged by coaches and parents.

Enjoyment of sport participation, *pressure* experienced, feelings of *anxiety*, *spectator behavior* influence and the *winning motive* can be influenced by various factors (Bois et al., 2005; Kristensen et al., 2013). Such factors include parental influence (Kohn, 1992), coach philosophy and style (McCarthy et al., 2008) as well as the schools' values and attitudes as conveyed through the personnel (Kristensen et al., 2013). This study clearly indicates the differences of the external factors (parents, coaches and school values) on the participation experience of the mini-rugby players between different schools. According to Lee (1993), negative parental and coach behavior are mainly responsible for destructive and pressurized sporting environments with occurrences such as a lack of enjoyment, heightened anxiety and pressure experienced by the players. The statistically significant differences of players from School 1 and the other schools regarding the measured constructs indicate that their school sport environment is more positive, fun orientated and conducive to development. These aspects can only be created by the parents, coaches and the school personnel whose purposeful actions to construct a balanced and positive sport participation environment result in positive outcomes (Sanders, Field, Diego, & Kaplan, 2000). The opposite may be true regarding the behavior and values pursued by parents, coaches and the school personnel involved with the players from Schools 2-5, since their players' experience significantly

differed from those of the participants from School 1. The unique circumstances and mechanisms operating within a school and the knowledge on the relative impact thereof on sport participation, provides valuable insight for intervention initiatives to be identified and implemented (Kristensen et al., 2013). This is a key aspect, since players' school sport participation is greatly affected by this aspect.

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A CRITICAL REVIEW OF SUSTAINABILITY IN CONSUMER PROTECTION POLICIES

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ABSTRACT

This paper provides a critical review of the discourses on sustainability in consumer protection policies. To address the policy dichotomy that locks sustainability into one domain and consumer protection into another, a number of aspects were critically analysed by means of existing secondary sources. The critical review indicated that the quest to achieve sustainability is in its infancy and much remains to be done to achieve global consumption and production patterns that will truly ensure resource sufficiency for future generations. However, significant strides have been made to develop global consensus on the importance of placing sustainable development as the cornerstone of achieving a more socially equitable world order. Emanating from this, there is global recognition of the need to put programmes in place in order to proactively pursue changes in consumption and production patterns so that current and future generations consume within the socio-economic and environmental carrying capacity of the earth's finite resources.

Keywords: Consumer protection, sustainability, policies, consumer protection policies

INTRODUCTION

Democratic governments, once elected, set up and run a public administration system which provides the state machinery to implement delivery on the political intentions as promised to the electorate. Government then develops policy frameworks to manage the socio-economic and political realities of the societies they have been elected into power to govern (Waller, Morris & Simpson 2014; Gumede 2008). Consumer protection policy is one such domain of public policy. Recognizing “that consumers often face imbalances in economic terms, educational levels, and bargaining power” in relation to businesses and corporates when buying goods and services, the United Nations has issued Guidelines for Consumer Protection (United Nations Guidelines 2003). As a regulatory measure, the United Nations encourages governments to “develop or maintain a strong consumer protection policy” whilst doing this within the context of countries respective socio-economic and environmental conditions, and taking cognisance of the needs and expectations of the people living in that country. To critically review the discourses of sustainability in consumer protection policies, a thorough understanding of both sustainability and sustainable consumption, as well as the ambit of consumer protection policies is needed. This paper outlines previous research on consumer protection policies, analyses sustainable consumption definitions, provides milestones of sustainable consumption global policy conceptualisation and focuses on the incorporation of sustainability into consumer protection policies.

SOUTH AFRICAN CONSUMER PROTECTION LEGISLATION

A preliminary overview of South African consumer protection legislation, relatively newly drafted as it is, shows that it does not holistically and explicitly incorporate sustainable consumption. This is despite the fact that the South African Consumer Protection Act was drafted in 2008, almost 10 years after the United Nations Guidelines for Consumer Protection were amended in 1999 to incorporate sustainable consumption. The institutional arrangements of government departments within a public administration system tend to be organized

according to functional pillars, with separate departments set up to manage a particular portfolio of service delivery responsibilities. This vertically linear departmental configuration often mitigates against horizontal integration of policy issues. An unintended consequence is that policy makers working in their respective departments do not seek out the policy intersect across departments. The result is that policies that impact on and relate to the mandates of a number of departments are developed in isolation within one particular department. Tonner (2000) articulates this as “*disassociation*”.

In South Africa, a good example of disassociation is consumer protection policy and environmental policy. Consumer protection policy is the responsibility of the Department of Trade and Industry, whilst sustainability has tended to be framed as part of the environmental protection policy remit and is thus located under the Department of Environmental Affairs. One of the implications of this is a policy disconnect between South African consumer protection policy and sustainable consumption and production policy imperatives, or “*disassociation*”. This is particularly pertinent given that the premise of the two respective policy fields can be diametrically opposed, as framed by Tonner (2000), with consumer policy sometimes enabling a consumer to consume as much as s/he wishes, whilst sustainability sometimes requires reduced consumption due to environmental concerns.

PREVIOUS RESEARCH ON SUSTAINABLE CONSUMER PROTECTION POLICIES

To address the dichotomy that locks sustainability into one policy domain and consumer protection into another, a key first step would be to examine previous research on this topic. This may suggest possible ways in which policy could be amended to embrace sustainable consumption practices and in-so-doing begin to steer consumer behaviour towards more socially equitable consumption choices.

Table 1 outlines a selection of the previous research on sustainability and consumer protection policies in developed and developing countries

Table1: Previous Research on Sustainability and Consumer Protection

Author	Country	Research Focus
Smith, R. (2000)	Australia	Presents proposals for how firms or industries can be more pro-active in relation to consumer protection
Muller, E. (2005)	Germany	Argues that institutional reforms are needed to strengthen consumer policy and that effective instruments must be introduced to protect consumer interests and direct consumer demands towards sustainable choices. Further that if policy is aimed at influencing consumer demand towards more sustainable consumption patterns, this will unlock the binary that equates increasing consumer protection with increasing disadvantage for business
Zabel, H-U. (2005)	Germany	Proposes a model of human behaviour for sustainability, identifying sustainability-hostile behaviour and sustainability-supporting behavior
Ghate, P. (2007)	India	Using a case study of micro-finance, lessons are extracted for consumer protection, and the impact of industry self-regulation versus state regulation are set out
Seyfang, G. (2007)	United Kingdom (UK)	Explores the notion of ecological citizenship and whether the UK policy model of sustainable consumption can be a tool for ecological citizenship, with consumers putting their environmental and social concerns into practice through their spending choices
Mont, O & Plepys, A. (2008)	European Union and OECD countries, drawing	An assessment of different mechanisms for influencing consumption patterns: <ul style="list-style-type: none"> • economic and informational policy instruments,

Author	Country	Research Focus
	on Swedish Environmental Protection Agency resources	<ul style="list-style-type: none"> • shifting from production-side regulation towards consumption-oriented policies, • addressing sustainable consumption through international collaboration, as national country-level policy and legislation has limited impact, given the global nature of the world economy
Bulkacz, V (ed). (2009)	European Union (EU)	A critique of the limited scope of the European Union Commission's Action Plan on Sustainable Consumption and Production, and the proposal for shaping a sustainable <i>society</i> , not a sustainable <i>consumer</i> ; and addressing the public as citizens in society, not simply as consumers
Connolly, J & Prothero, A. (2010)	Ireland	Identified factors that encourage less consumption by consumers, finding that consumers view environmental and green opinions from a supply and not a demand perspective. This in turn suggests which policy instruments will influence changes in consumer behaviour towards more sustainable consumption
Zeija, F. (2013)	Uganda	Using a case study of micro-finance, lessons are extracted for ensuring greater consumer protection through consumer awareness, obligatory inclusion of fair contract terms; and increased monitoring of finance providers

Table 1 shows the various research foci since 2000 in different countries. Sustainable consumption and the policy environment are still hugely under researched.

A BRIEF OVERVIEW OF SOUTH AFRICAN CONSUMER PROTECTION POLICIES

In South Africa, rights-based consumer protection started to be conceptualised following the inaugural all-inclusive elections in 1994, when for the first time in the country's history, all citizens were entitled to vote and a democratic state came into being. Once the under-pinning policy framework had been settled, two pieces of legislation were enacted as the primary pillars of the statutory framework to regulate consumer matters, namely the National Credit Act (No. 34 of 2005) and the Consumer Protection Act (No. 68 of 2008). These Acts jointly institutionalise and regulate consumer protection. The National Credit Act (NCA), whilst regulating the marketplace for access to consumer credit, "*promotes a consistent enforcement framework relating to consumer credit and establishes the National Consumer Tribunal (NCT)*" (National Credit Act, 2005). The Consumer Protection Act (CPA) "*promotes a fair, accessible and sustainable marketplace for consumer products and services and for that purpose to establish national norms and standards relating to consumer protection*" (Consumer Protection Act, 2008). These Acts have introduced wide-ranging protection for consumers, yet do still have limitations in their scope.

Of particular interest is that South African consumer protection policy and legislation does not holistically incorporate sustainability or sustainable consumption. This appears analogous, as the legislation is viewed as progressive (Melville, 2010) and as an example of legislative best practice in Africa, despite being viewed as legally complex due to its ambiguity and uncertainty. The inherent and novel power of the Consumer Protection Act requires that the National Consumer Tribunal or the courts develop the common law in such a way that it enables the realization and enjoyment of consumer rights. Specifically, "*the Act requires that its provisions be interpreted in a manner that gives effect to its spirit, or the purposes that it intends to achieve. In broad terms this includes: - assisting those who are disadvantaged in terms of income, where they live, age or level of literacy*".

Sustainable consumption is not a new concept. It is one of the eight objectives of the United Nations Guidelines for Consumer Protection, as amended in 1999. These Guidelines (United Nations Guidelines 2003)

are quite explicit, stating up front that “*consumers should have the right to promote just, equitable and sustainable economic and social development and environmental protection*”. A number of countries have responded to this global benchmark, as articulated in the United Nations Guidelines for Consumer Protection, and have incorporated sustainable consumption into consumer protection legislation.

DEFINING SUSTAINABLE CONSUMPTION

Global consensus around the need for collective action to achieve sustainable development is reflected in the adoption of the Rio Declaration and Agenda 21, at the culmination of the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit, in Rio de Janeiro in 1992 (Encyclopedia of Earth, 2014). For the first time, 178 countries of the world agreed that economic and social progress is dependent on a simultaneous concern for the environment. Agenda 21 sets out an international implementation plan to achieve sustainable development. Key to this is finding ways to balance production, consumption, population and development against the capacity of the earth and its natural resources to support the needs of all human beings. The notion of sustainable development placed sustainable consumption alongside sustainable production, within the over-arching ambit of sustainable development. The Oslo Round-Table on Sustainable Production and Consumption (Oslo Symposium, 1994) produced a working definition of sustainable consumption as “*the use of goods and services that responds to basic needs and bring a better quality of life while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations.*” Karsten and Reisch (2008) note that the all-encompassing nature of this definition suggests that the sustainability of consumption needs to take into account economic, social and environmental aspects. Sustainable consumption is regarded as an umbrella term integrating a range of aspects outlined at the Oslo Round-Table as “*meeting needs, enhancing the quality of life, improving resource efficiency, increasing the use of renewable energy sources, minimising waste, taking a life cycle perspective and taking into account the equity dimension*”. Round and Sporer (2003) regard this as “*environmental economics for consumer markets*”. Borrowing from the definition of sustainable development, sustainable consumption can be viewed as a concept of law and policy aiming to steer consumer behaviour towards more environmentally-friendly, and socially equitable consumption choices. In addition, products (and their production technologies) should not impose irreversible risks on society, should not harm norms of other cultures and should be produced under socially acceptable conditions. Developing a definition of sustainable consumption has traversed a similar path to the global process of arriving at a universally acceptable definition of sustainable development.

Prior to the coining of the over-arching term sustainable consumption, more one dimensional concepts like ‘eco-efficiency’ (promoted by the World Business Council for Sustainable Development), and ‘cleaner production’ (adopted by the United Nations Environment Programme), were being experimented with by businesses and governments (Sabapathy, 2007). These resulted in businesses starting to introduce more environmentally-friendly production processes. Karsten and Reisch (2008) note that “*growing awareness of environmental and social concern and the pressing issue of climate change have forcefully re-established sustainability policy as a part of consumer policy. The need for change in consumer behaviour and for more responsible lifestyles on the demand-side of the economy is challenging conventional concepts of consumer law and policy*”. This “greening of consumerism” is perhaps the most developed example of the spill-over effect of environmental concerns into internal market policies. It has also impacted on consumption patterns with resultant consumer behaviour shifts in favour of more sustainable choices, such as opting for a more eco-friendly product or choosing products with bio-degradable packaging. Consumer protection policy can be instrumental in prompting or promoting consumer behaviour and resultant choices that consumers make. For example, consumer policy could make it compulsory that product content is listed on product labelling, in order for consumers to take this information into account when considering which product to purchase (Germany Submission, 2013). On the basis of this consumers are able to be aware of the potential environmental effects of products that they are due to consume. Consumer protection policy is thus a powerful tool to encourage more sustainable consumption and production patterns.

ENABLERS AND CHALLENGES IN THE IMPLEMENTATION OF SUSTAINABLE CONSUMPTION

Following the Rio earth Summit, the United Nations continued work to encourage countries to implement strategies to promote and achieve sustainable consumption and production. The Johannesburg Plan of Implementation calls for actions at all levels to “*Encourage and promote the development of a 10-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production*” (Bentley, 2004).

To further refine this, the United Nations Department of Economic and Social Affairs, together with the United Nations Environment Programme convened the International Expert Meeting on the 10-Year Framework of Programmes for Sustainable Consumption and Production held in Marrakech, Morocco. The outcomes of the meeting have become known as the Marrakech Process (Marrakech Process, 2014). Four working groups discussed different aspects of sustainable consumption and production. Working Group 2 focussed on General Policy Instruments and Analytical Tools for Sustainable Consumption and Production. Examining these, a set of enablers and challenges that countries can face when attempting to incorporate sustainability into consumer protection policy and when developing a national plan to promote behaviour change among consumers and production changes in business processes in order to achieve more sustainable consumption and production, is proposed in Table 2.

Table 2: Enablers and Challenges in the Implementation of Sustainable Consumption

Enablers	Challenges
Political will and commitment for the implementation of sustainable consumption and production strategies	Stakeholder resistance
Developing and agreeing upon a clear definition of sustainable consumption	Generic and unfocussed conceptualisation of sustainable consumption
Capacitated government decision makers in the design and implementation of sustainable consumption and production policies	Lack of integration in policy formulation across the three pillars of sustainable development (environmental, social and economic)
Cooperation between governments, business and civil society	Short-term planning horizon of political decision makers
Educated and informed consumers	Making sustainable consumption desirable for consumers

Source: Researcher’s own construct

Table 2 shows that various stakeholders are involved to ensure sustainable consumption and that government, in particular, is critical to ensuring that sustainability is integrated into consumer protection policies.

GUIDELINES FOR INCORPORATING SUSTAINABILITY INTO CONSUMER PROTECTION POLICY

The path to incorporating sustainability into consumer protection policy at global level has stretched over a number of decades. The first clear milestone was in 1985 when the General Assembly of the United Nations adopted the guidelines for consumer protection with the passing of resolution 39/248 of 9 April 1985 (United Nations Resolution, 2015). The aim of the Guidelines was to provide a baseline for countries to begin to implement or strengthen existing consumer protection policies and laws. In 1995, in response to increased recognition of the link between consumption patterns and environmental sustainability, the United Nations Commission on Sustainable Development recommended that the guidelines for consumer protection be expanded to include guidelines on sustainable consumption patterns. In response to this recommendation, the Interregional Expert Group Meeting on Consumer Protection and Sustainable Consumption was convened in São

Paulo, Brazil, in 1998 to produce a framework for the expansion of the guidelines for consumer protection to include guidelines for sustainable consumption patterns. The various dimensions of the guidelines that were introduced to incorporate sustainability into consumer protection guidelines (United Nations Sustainable Consumption, 1998) were aimed at encouraging countries to ensure at least an elementary incorporation of sustainability into consumer protection policy. To bring the Guidelines in line with the global consensus on sustainable development in the Rio Declaration of 1992, expanded guidelines for consumer protection aimed at incorporating guidelines for sustainable consumption patterns also introduced an entire section on *“Policy Instruments for the Promotion of Sustainable Consumption”*.

Whilst international guidelines are useful, it is important that consumer protection should evolve uniquely within different countries, shaped by internal political, social, and economic pressures within each country as well as by external forces such as globalisation (Fuchs & Lorek 2005). International agencies such as the United Nations and the Organization for Economic Co-operation and Development have facilitated various initiatives to catalyse the development of policy frameworks for sustainability. This has impacted positively, notably in the European Union, to the extent that sustainability is now contained in practically all European Union policies (Bentley 2004). Following the European Union’s adoption of the Framework for Sustainable Consumption and Production, member countries have taken this forward and identified avenues to incorporate sustainability into their respective consumer protection policy regimes. This suggests that international agencies should continue to convene global processes to produce guidelines and frameworks for plans of action for incorporating sustainability into consumer protection, as this has been shown to influence governments to develop country-specific policies in this domain.

CONCLUSIONS AND RECOMMENDATIONS

The past 30 years have witnessed a convergence in global thinking to achieve sufficient consensus on a conceptual definition of sustainable development that embraces the inter-connectedness of economic growth and resource utilization with concern for environmental impact and the needs of future generations. Interwoven with this, has been the incremental inclusion of the realisation that consumption and production patterns also need to shift towards incorporating sustainability. What has proven to be trickier and more complex, has been the design and implementation of comprehensive plans to achieve sustainable consumption and production in practice. This is due in part to the wide range of policy mechanisms that would be needed to achieve sustainable lifestyles. Policy and related regulatory mechanisms would be needed in many domains of public management and administration. Due to the vertical structure of most government departmental configurations, horizontal intersect across departments is often compromised, which may result in policy blind-spots. Different countries have experimented, and continue to do so, with various plans to drive more sustainable consumption and production. One such policy domain is consumer protection. This preliminary review of this field has shown that some countries, such as Sweden and Germany, have been energetic and creative in this respect. Similarly geopolitical areas such as the European Union and the Association of South-East Asian Nations have also been very active in developing guiding frameworks to encourage member states to develop country-specific plans of action for sustainable consumption and production, as well as to consider cross-boundary initiatives given the global nature of markets.

The quest to achieve sustainability is in its infancy and much remains to be done to achieve global consumption and production patterns that will truly ensure resource sufficiency for future generations. As a starting point, the elements of sustainable consumption incorporated into the United Nations Guidelines on Consumer Protection provide a useful frame of reference of countries to benchmark against when developing national consumer protection policy. A significant global opportunity exists to incorporate consumer protection into the sustainable development goals that are due to be agreed in September 2015 at the United Nations. Consumers International have been lobbying hard for this, arguing that consumer rights are central to achieving sustainable development, as these rights would contribute to *“a fairer, safer, and healthier society and more equitable and efficient economy”* (Consumers International, 2015). It may be that this may not be achieved in this round of global dialogue for over-arching sustainable development goals that world leaders strive to achieve in their respective countries. This does not detract from the soundness of the argument or that individual countries should continue to pursue the incorporation of sustainability into their respective consumer protection

policies. It is therefore proposed that future research into the incorporation of sustainability into consumer protection policy be pursued.

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IMPACT OF INFORMATION TECHNOLOGY ON THE EFFICIENCY OF TUNISIAN BANKS: A STOCHASTIC FRONTIER ANALYSIS

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ABSTRACT

This paper investigates the performance of information technology (IT) investments of 10 Tunisian banks over the period (2003-2013). Applying the Stochastic Frontier Approach on a panel data, estimates of cost efficiencies are generated. Our results show that the banks that obtained the best scores of efficiency are the Arab Bank (78.65%), the Societe Tunisienne de Banque (77.77%) followed by Attijari Bank (76.92%). The empirical findings demonstrate the positive impact of IT investments on bank's cost efficiency. Finally, we found that our estimated measures of cost efficiency explain better this relationship than the traditional ratios.

Keywords: Banking performance, information technology, cost efficiency, Stochastic Frontier Approach

INTRODUCTION

The information technology (IT) has been at the heart of the international competition. It has had a deep impact in all economic fields, and it is now integrated into most production activities. Indeed, since 1980s, the relationship between IT and productivity has become a source of debate.

However, it has been difficult to determine the relationship between IT investment and the productivity gains or financial performance of businesses. Therefore, some authors questioned the impact of IT on productivity especially in the banking industry. This question began as a major literary trend when R. Solow (1987), proposed his famous “productivity paradox”; that says: “You can see the computer age everywhere but in the productivity statistics!”. This statement led to countless studies on this field in the U.S and Europe that provided varied explanations. Accordingly, a rich literature on the impact of IT investment had begun. According to Johson and Scoles (1997), the concept of Global Efficiency (X-efficiency) is defined as “efficiency is an internal measure of business performance, it is generally appreciated in terms of production costs or profit and measured by the amount of resources used to produce a unit of goods or services”. The global efficiency is the product of two main components: technical efficiency, allocative efficiency. Chaffai and Dietsch (1998) consider that global efficiency “focuses on the quality of the organization and strategic decisions on the markets. It measures the financial performance”. According to these authors, a bank is called technically efficient if it, controls the technical aspects of its production and, is able to provide maximum services with minimum possible resources. A bank is efficiently allocative if it operates at the least costly productive combinations. In other words, a bank uses the factors of production, in accurate view of their market value, in order to minimize its costs (Inputs approach), or provides different products according to the proportions that enable it to maximize its revenues (outputs approach).

In the light of “the productivity paradox” concept, this research attempts to empirically investigate the relationship between IT investment and bank performance in the context of an Emerging country such as Tunisia. Our study will try to provide answers to following key question: What is the impact of information technology on the performance of Tunisian banks?

This empirical paper attempts to examine the impact of IT on the performance of several Tunisian banks. The technique used is a stochastic frontier function applied to a multi-product translog cost. Moreover, our methodological contribution is to overcome the limitations of the previous studies related to the banking sector; firstly, we tried to gauge the delay between IT investment and financial performance by implementing several statistical tests for the purpose and secondly, we identified others variables that seem to best explain the performance of Tunisian banks.

AN OVERVIEW OF RELEVANT LITERATURE

There is no consensus among economists on the impact of IT investment on firms. This had brought further the interest of the researchers on this field. The works of Loverman (1994), Licht and Moch (1999), and Oluwagbemi, Abah and Achimugu (2011) point out the ineffectiveness of IT in improving the performance of banks. On the contrary, several researchers, such as Lichtenberg (1995) and Brynjolfsson and Hitt (1996), have found a positive relationship between IT investment and the productivity of a banking firm.

In order to face competition increasingly fierce in the recent years, Tunisian commercial banks were compelled to improve their productivity and efficiency by adopting several strategies, including cost minimization which, involves searching for economies of scale based on technical changes., an econometric approach can be used to measure the impact of the technological changes on banking efficiency. In this perspective the central bank of Tunisia is in the process of setting up indicators positioning banks (IPEC) [Mars 2015] that is inspired from the American Uniform Bank Performance Report (the UBPR). This project aims to provide a benchmark allowing Tunisian banks to position themselves with respect to the sector in terms of competition.

Many economists studied the efficiency of Tunisian commercial banks. Chaffai (1997), who was the first researcher to analyze the experience of the deregulation in the Tunisian banking system, found that total efficiency of banks increased after the liberalization process initiated in 1986. Dahmane (2002), Zaghla and Boujelbene (2008) and Bannour (2008) used the Stochastic Frontier Approach (SFA) to compare the efficiency of banks in different sub-periods. However, despite the contribution of these works, very few studies evaluated the impact of IT investment on the performance of banks using the Stochastic Frontier Approach; Ben Romdhane (2013) and Omri and Hachana (2008) attempted to identify the nature of the relationship between IT investment and productivity using this approach. Their findings showed that IT investments improved banking productivity.

Investments in IT and bank performance

Previous studies of the relationship between IT investment and performance are generally illuminating, but in light of Becalli (2007), they did not use appropriate performance measures. According to Becalli (2007), the information technology improves organizational capacity by improving the variety of banking income (better quality leads to better customer satisfaction). However, these improvements are not taken into account by traditional measures of performance because they do not consider the changes in the production process and Inputs- Outputs relations. Therefore, in our study we will remedy to this problem by considering a measure of the overall productivity such as the cost efficiency and other accounting ratios such as the Return on Assets (ROA) and the return on Equity (ROE).

- Return On Assets (ROA) Ratio: Return on assets is the ratio of annual net income to average total assets of a business during a financial year.

$ROA = \text{Annual Net Income} / \text{Average Total Assets}.$

- Return On Equity (ROE) Ratio: Return on equity or return on capital is the ratio of net income of a business during a year to its stockholders' equity during that year. $ROE = \text{Annual Net Income} / \text{Average Stockholders' Equity}.$

EMPIRICAL APPROACH: RESEARCH METHODOLOGY AND HYPOTHESES

Stochastic frontier translog cost function

The question to be answered concerns the best combination of inputs that can produce an optimal combination of outputs while minimizing production costs. Given the diversity bank's operations, we think that the translog function is the most appropriate method compared to other functional forms because it takes into account multiple complementary links between the explanatory factors and does not impose any restriction on the form of the cost function. We specify this function in its standard form as follows:

$$\ln TC_{it} = \beta_0 + \sum_{k=1} \beta_k \ln y_{it} + \sum_{k=1} \alpha_h \ln(P_{hit}) + \frac{1}{2} \sum_{j=1} \sum_{k=1} \beta_{jk} \ln(y_{jit}) + \frac{1}{2} \sum_{h=1} \sum_{j=1} \alpha_{hj} \ln(P_{hit}) \ln(P_{jit}) \\ + \sum_{j=1} \sum_{k=1} \lambda_{jk} \ln(P_{jit}) \ln(y_{jit}) + \varepsilon_{it}$$

For each bank $i = 1, \dots, N$ and

$\square t = 1, \dots, T \square k = 1, \dots, K \square h = 1, \dots, H.$

With $\varepsilon_i = U_i + V_i$; for each bank $i = 1, \dots, N$.

Where CT_i is the total cost of the i^{th} bank, Y_i is the vector of outputs of the i^{th} bank; P_i is the vector of input prices of the i^{th} bank, β is the vector of parameters.

U_i is a measure of technical inefficiency and is distributed only one side of the border, V_i is the error term (random shock). These two terms are independent.

Impact of IT Components on Cost Efficiency

Our aim is to study the impact of different components of IT (investment in hardware and software) on the cost efficiency of several Tunisian banks. We use the following regression model:

$$P_{it} = \beta_0 + \beta_{it} TI_{it} + \varepsilon_{it}$$

Where P_{it} = the performance of bank i at time t measured by cost efficiency;

ε_{it} = error term.

In this respect, we will perform two tests:

Test period t : that tests the relationship between IT investment at time t and contemporary banking performance (P_{it}).

Test period $(t + 1)$: that tests the relationship between IT investment at time t and the performance of the subsequent period (P_{it+1}).

We want to test whether there is a gap between IT investments and performance. In fact, some authors predict that investments take time to influence performance.

Hypotheses

Hypothesis 1: Investment in information technology has a positive impact on bank performance.

Hypothesis 2: The "intermediation" variable has a positive impact on performance.

Hypothesis 3: The ratio of "equity to total loans" (FC) variable has an undefined impact on performance. Its sign will depend on regulation

Hypothesis 4: the ratio "deposits to total assets" (DA) variable has a positive impact on performance.

Hypothesis 5: The "Size" variable has a negative impact on performance.

EMPIRICAL ESTIMATION ON TUNISIAN BANKS

Presentation of sample and definition of variable

To determine the impact of IT investment on banking performance, we selected a sample of 8 Tunisian banks; namely the Arab Bank (AB), the Arab Banking Corporation (ABC), Attijari Bank, the Banque Internationale Arabe de Tunisie (BIAT), Banque Nationale Agricole (BNA), Banque de Tunisie et des Emirats (BTE), Societe Tunisienne de Banque (BTE), and Union Internationale de Banques (UIB)) over the period (2003-2013).

In the model we adopt, the dependent variable is bank performance, the explanatory variables are: the use of IT (the variable of interest) and other control variables.

Outputs	Y1: Total credits, which includes credits to customers (portfolio discount accounts receivable of clients + Credits on special resources + Other customer loans) and interbank loans (loans to banks and specialised agencies + cash, certificates of deposit and commercial paper).
	Y2: The securities portfolio, which represents the commercial securities portfolio and the investment portfolio. The securities portfolio, which represents the commercial securities portfolio and the investment portfolio.
The prices of the production factors	The price of labor (P1): is measured as the ratio of personnel expenses resulting from the sum of annual salaries for the bank's staff and expenses relating those salaries to the annual number of employees. $P1 = \text{Personnel expenses} / \text{Number of employees}$.
	The price of physical capital (P2): is approximated as the ratio of the amortization and impairment of assets to fixed assets. $P2 = \text{amortization and impairment of assets} / \text{Fixed assets}$.
	The price of financial capital (P3): is measured by the average cost of borrowed resources as the ratio of paid interest to deposits. It therefore consists of comparing accrued interest and similar expenses on deposits and customer assets with total deposits. $P3 = \text{Interest Expense} / \text{Total borrowings}$.
IT	IT capital is approximated by the annual amount spent by banks on the Hardware and Software.
TI	Intermediation variable measured by the ratio of total loans to total deposits.
FC	Ratio of equity to total credits
DA	Ratio of deposits / total assets: It is a source of efficiency related to the presence of economies of scale in collecting deposits.
Size	The size is measured by the logarithm of total assets
D: dummy variable	Dummy variables are used to determine the difference in generated efficiency scores depending on each bank's type of activity: $D_{it} = 1$ if the bank i at a period t is public; $D_{it} = 0$ if the bank i at a period t is private.

Table1: Results of parameter estimates of the translog cost function:

Variables	Coefficient	Standard-Error	t-ratio	P> t
Constant	393.6945	121.6635	3.24	0.001
Ln (Y1)	-88.9946	21.2789	-4.18	0.000
Ln (Y2)	35.1865	8.70493	4.04	0.000
Ln (P1/P3)	-0.2454	0.1698	-1.44	0.149
Ln (P2/P3)	5.2386	35.116	0.15	0.881
Ln (Y1) ²	4.8620	1.0664	4.56	0.000
Ln (Y2) ²	0.4609	0.2375	1.94	0.052
Ln (P1/P3) ²	-0.00006	0.00001	-4.07	0.000
Ln (P2/P3) ²	0.4249	0.8313	0.51	0.609
Ln (P1/P3) Ln (Y1)	0.0133	0.0190	0.70	0.485
Ln (P1/P3) Ln (Y2)	0.0120	0.01206	1.00	0.318
Ln (P2/P3) Ln (Y1)	-0.0539	4.0967	-0.01	0.989
Ln (P2/P3) Ln (Y2)	-0.8737	2.6117	-0.33	0.738
Ln (Y1) Ln (Y2)	-3.3400	0.9033	-3.70	0.000

In view of statistical significance of the different variables, the coefficient of “credits” (Y1) outputs is negative which means that credits act negatively on the cost frontier. The negative sign means that lending activity decreases banking costs; in other words, a bank is able to reduce its costs by increasing its volume of granted loans. Conversely, the coefficient of “securities” (Y2) outputs is positive and significant. Thus, investment assets act positively on the cost frontier, which reveals the weight of securities in raising the costs of financial intermediation in Tunisian banks. This result is due to the fact that banks incur financial and operational expenses when investing in non-traditional activities. It seems that the two variables -credits and price of labor to the price of financial capital- act in the same direction on the cost function. In other words, the higher the loans and the cost of labor to the financial capital the higher the total costs. However, the variables -credits and price of physical capital to the price of financial capital- operate in the opposite direction of the cost function, which mean that the higher the loans and the cost of physical capital to financial capital the lower the total cost.

Table2: Determinants of cost inefficiency

Variables	Coefficient	Standard-Error	T-ratio	P> t
INT	0.2345	0.9611	0.24	0.807
FC	-3.6625	4.0661	-0.90	0.368
DA	-0.1957	0.4607	-0.42	0.671
Size	1.5159	0.9657	1.57	0.116
D	-0.2184	74.2930	0.00	0.998
$\sigma^2 = \sigma_u^2 + \sigma_v^2$	1029.796			
$\gamma = \sigma_u^2 / (\sigma_u^2 + \sigma_v^2)$	0.9900			
Likelihood Log	-236.9925			
Number of observations	83			

The main results that emerge from Table 2 are:

- a. The parameter estimation of variance $\gamma = 0.9900$ is close to unity and significant at the 1% level, indicating that the determinants of inefficiency seem to act significantly on the cost efficiency of Tunisian banks. This result rejects the hypothesis that the variance of σ_u^2 the efficiency is zero. Also this result justifies the decomposition of the error term and the presence of random terms of efficiency. Consequently, the distance of a bank from the "best practices" frontier is largely explained by the inefficiency cost (99%), and measurement errors contribution is only 1%.
- b. With the test of the maximum likelihood ratio, we can check if a model is generally explanatory. The null hypothesis that indicates whether the determinants of inefficiency are absent from the model is strongly rejected.
- c. The results show that the intermediation ratio (INT), acts negatively (positive and significant) on the cost efficiency of banks. This means that the bank that has a high intermediation rates can benefit from economies of scale and reduce costs accordingly. Thus a significant volume of credit may increase the use of more expensive funding. We reject the H2 hypothesis.
- d. Among the regulatory variables, the weight of equity is retained relative to the total credits, (FC) variable reflecting the state of regulatory constraints on capital. The coefficient of the ratio FC is negative and significant; therefore FC ratio has a positive impact on the efficiency of Tunisian commercial banks.
- e. The choice of bank output seems to have played an important role in determining the level of bank efficiency. We find that the DA coefficient is negative and statistically significant; the structure of deposits has a negative effect on banking inefficiency. In fact, the larger the share of demand deposits, the more a bank has the ability to exploit its intermediation function. We accept the H4 hypothesis.
- f. The Size variable acts negatively and significantly at the 1% level (positive sign) on the cost efficiency of banks. The greater the size, the lower the efficiency level (accept of the H5 hypothesis). This result shows that Tunisian banks do not have the managerial capacity to manage a large total asset. The greater the size, the more resources are wasted.

Table 3: Score of X-efficiency during the period 2003-2013.

Banks	Mean	Min	Max	Banks	Mean	Min	Max
AB	0.7865	0.7865	0.9198	BNA	0.7019	0.6232	0.8058
ABC	0.3717	0.2935	0.5150	BTE	0.4448	0.3952	0.4972
Attijaribank	0.7692	0.7271	0.8114	STB	0.7777	0.6701	0.8568
BIAT	0.7328	0.5629	0.9418	UIB	0.6285	0.5324	0.7666
Average	0.6344						

The estimated values for the cost function parameters used to calculate the distance of each observation with respect to the efficient frontier. This efficiency score is between 0 (total inefficiency) and 1 (perfect efficiency of the units forming the border). For example, a score of 0.876 means that the unit can be considered efficient to 87.6% compared to the "best" of his group, which means that it could increase its productive performance of 12.6%.

The average efficiency of the sector as a whole during the period (2003–2013) is estimated at 63.44%. This result shows that the banking costs are above the efficiency frontier of 36.56%. In other words, the inefficiency term reveals a waste of resources in the Tunisian banking sector of approximately 36.56%.

The banks that obtained the highest efficiency scores are AB (78.65%), STB (77.77%) and Attijari Bank (76.92%) followed by BIAT (73.28%). These results imply that with equal resources, these banks are able to increase efficiency by 21.35%, 22.23%, 23.08% and 26.72% respectively.

This disparity in terms of efficiency between banks may be due to problems caused by the non-performing loans. Note that the burden of bad loans constitutes one of the sharpest problems of the Tunisian banking sector. The bad loans percentage is very high representing 17.9% for private banks and 24.1% for public banks according to the International Monetary Fund (IMF) while the international standard is around 6%. In addition, differences in efficiency levels between public and private banks remain relatively low. The results show that the most efficient banks on average are the private banks (this confirms the negative effect of state ownership, as an explanatory factor of efficiency, the performance of Tunisian banks), except that the STB is a public bank. The major problem of Tunisian public banks remains the high operating costs, especially labor costs. In fact, the operating expenses of BNA and STB absorb 52% of their Gross National Product (GNP). These banks remain penalized by an oversupply weighing on productivity. However, during the period (2008-2013), Attijari Bank achieved the second highest annual growth rate in deposit collection (10.7%) behind AB and the third in terms of Gross Domestic Product (GDP) after the UIB and the AB. The UIB shares with BIAT, the second highest growth rate of credits over the period (2008-2013) and third best growth rate of deposits after the AB and the Attijari Bank. Attijari Bank is the bank that shows the best productivity of capital (GDP 2013 / Operational 2012) relayed by BIAT and UBCI. The BIAT maintains its leadership, far ahead of the rest of the other banks, with a market share of 16.6%. In addition, this bank has a solid competitive advantage over its counterparts: a very cheap collection (Cost of resources estimated 2.3% for 2014, the lowest in the industry) that provides it with greater flexibility in its output rate.

Regression models measuring the impact of IT on performance

Our study aims to specify the relationship between IT investment and performance. We want to test whether there is a gap between IT investments and performance. This performance was measured through two different approaches: traditional accounting ratios (ROA and ROE) and the standard Stochastic Frontier Approach on panel data to generate estimates of cost efficiencies.

¹ All data that follow are drawn from the annual statutory financial statements of banks and quarterly business indicators available on the CMF website and BVMT

Table 4: Pearson correlation matrix and Spearman's Rho

	Pearson correlation matrix				Spearman's Rho				
	TI	ROA	ROE	Ln CT		TI	ROA	ROE	Ln CT
TI	1	0.069**	0.395	0.529	TI	1	0.216	0.463	0.763
ROA	0.069**	1	0.214*	-0.010**	ROA	0.216*	1	0.455	0.179
ROE	0.395	0.214*	1	0.228*	ROE	0.463	0.455	1	0.327
Ln CT	0.529	-0.010**	0.228	1	Ln CT	0.763	0.179*	0.327	1

The relationship between ROE and IT in one hand and Ln CT (cost efficiency) and information technology (IT) in the other hand is not significant. On Other hand, the correlation between IT investment and ROA is positive and significant with a correlation coefficient equal to 0.069 at 5% level. To support our results we preceded to the Spearman Rho correlation (evaluates the monotonic relationship between two continuous or ordinal variables). The results through Spearman Rho show a positive and significant relationship between ROA and IT, while Ln CT is positively correlated to ROA and ROE. At this level, the hypothesis H1 is accepted, there is of a positive relationship between performance of bank measured by the two methods (Ln CT, ROA and ROE) and investment in IT.

The estimation results by Ordinary Least Squares provided by Eviews version 7 are presented in table 5.

Table 5: Regression between investments in IT and each performance measure and

		Regression between investments in IT and each performance measure				Regression between investments in IT and each performance measure with a delay of a year			
		Coefficient	Std. Err	T	$P > t $	Coefficient	Std. Err	t	$P > t $
ROA	TI (β_j)	$1.76 e^{-0.7}$	$8.41 e^{-0.7}$	0.2094	0.838	$3.03 e^{-0.7}$	$8.77 e^{-0.7}$	0.346	0.737
	β_0	0.0046	0.0084	0.5520	0.594	0.002	0.008	0.326	0.751
	R ²	0.004				0.013			
ROE	TI (β_j)	$1.50 e^{-0.5}$	$1.16 e^{-0.5}$	1.290	0.228	$1.59 e^{-0.5}$	$1.17 e^{-0.5}$	1.357	0.207
	β_0	-0.093	0.116	-0.797	0.445	-0.105	0.117	-0.897	0.393
	R ²	0.156				0.169			
Ln CT	TI (β_j)	0.001	0.000	1.874	0.096	0.002	0.001	1.436	0.184
	β_0	17.54	9.993	1.755	0.113	10.40	16.595	0.6269	0.546
	R ²	0.280				0.186			

Our results show that investments in IT improve productivity of the bank that takes into account the time lag between the investment and its effect. In addition, we found that the measures of cost efficiency explain better the relationship between IT investment and performance than the traditional ratios. This result confirms one of the explanations of the productivity paradox; i.e., the existence of a delay.

CONCLUSION

This research examines the relationship between IT investment and the performance of several Tunisian banks using the Stochastic Frontier Approach of a translog cost function. Our study includes 8 Tunisian banks over a 10-year period; namely the period (2003–2013). Tunisian banks are likely to conduct an upgrading of their performance in the coming years as a result of an increasing competition. This upgrading would be illustrated by

product diversification, modernization of information systems, management training, cost reduction and probably further concentration of banks through merger operations. For this reason we measured the performance of several Tunisian banks by estimating a translog cost frontier in order to identify possible sources of inefficiency. The results obtained show that the AB, the STB, the Attijari Bank and the BIAT are the most efficient banks in Tunisia during this period of study with efficiency scores of 78.65%, 77.77%, 76.92% and 73.28% respectively

Furthermore, our study confirms the role of information technology in improving the performance of Tunisian banks. The results obtained show a positive impact of the investment in IT on bank's performance: the values of the ROA, ROE and cost efficiency measured by Ln CT are 1.76e-0.7, 1.50e-0.5 and 0.0018 respectively. The model with delay, roughly confirms our baseline results (positive result), with an improvement in the coefficient of the three ratio (RO, ROE and Ln CT). Therefore, investment in IT positively influences the performance in the following year. In addition, we found that the measures of cost efficiency explain better the relationship between IT investment and performance than the traditional ratios. This result contradicts the "productivity paradox". It is in the interest of Tunisian banks that plan to improve their productivity and efficiency to invest further in IT because of its confirmed role in improving the cost efficiency. Tunisian banks must demonstrate expertise and sufficient learning capacity to cope with the recent global financial crisis and to overcome the problems associated with it. We believe that this model may be of interest to banks' managers. Indeed, it may allow them to better understand the complexity of the performance concept and therefore encourage them to allocate more consideration to the organizational aspects and the interactions between each of the performance determinants that we were able to identify. Given the scarcity of the studies on the impact of IT on the performance of banks, new lines of research are open to researchers. Though this research does not pretend to be exhaustive, we recommend that future studies adopt other approaches to measure efficiency or by add other variables (macro-economic, market structure etc.) to the inefficiency term. These variables are important in explaining banks' levels of efficiency. Finally, despite the contributions of this research, much work remains to be done to move toward a better understanding of the effects of information technology that we believe is still an extremely exciting topic.

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SOCIAL MEDIA: A STRATEGIC DECISION MAKING TOOL

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ABSTRACT

Social media is seen very much as a marketing tool, and there is little in the literature that considers its use as a strategic decision-making tool. This conceptual paper is an attempt to redress the balance. Social media user-generated content from blogs or consumer feedback is one way that social media can support effective strategic decision making. However, the business and organisational environments are influential on the effectivity of the data collected and, ultimately, its analysis. The decision-making approach—single or multistage—are significant influencers on the quality of the decisions. Multistage decision making is supportive of controversial decision making, which leads to better utilisation of the information and, consequently, better decision making. Ultimately, robust decision making is underpinned by the effectiveness of the decision-making process.

Keywords: Social media, marketing strategy, uncertainty, strategy, and decision making

INTRODUCTION

Decision making is required by all organisations; however, the approaches used to come to a decision will vary. Consequently, many books have been written on decision making, because of its importance to businesses and to organisational functioning (Hoy & Tarter, 2010; and Litchfield, 1956). Decision making is constraint by time and revisiting a decision is a bounded process that is also time-consuming (Hoy & Tarter, 2010). Decision making requires a degree of optimism and participation (Connolly & James, 2006; Gigerenzer, 2000; and Gigerenzer et al., 1999). However, other authors view decision making as a nonoptimistic process (Kahneman et al., 1982; and Kahneman & Tversky, 1973). This does beg the question: is social media more supportive of a particular approach to decision making or is social media's role in decision making unrelated to the decision-making approach? Decision making requires the identification of patterns, and these patterns guide the individual especially in the formative years and they become ingrained (Calabrese & Zepeda, 1999). Social media is a tool that can leverage the patterns and enhance the decision-making process. Decision-making assessment will require criteria referencing (Calabrese & Zepeda, 1999). Carroll and Johnson (1990) used criteria referencing to identify conflicting reference points. Examples of these reference points are purposeful versus nonpurposeful, consistent behaviour versus inconsistent behaviour, and reasoning versus prone to error. Calabrese and Zepeda (1999) suggest that a 'good' decision maker rarely makes a 'wrong' decision, because a good decision maker keeps an eye on the present and also on the future. This suggests the good decision maker has vision and can link current decisions to future decisions. They understand how decisions today could affect future decisions. Knowledge is a key influencer on decision making and its ability to influence the cognitive pattern recognition is highly individualised (Calabrese & Zepeda, 1999). How the decision makers interact with the organisation to form a dynamic relationship is influential on the quality of decision making (Saiti & Eliophotou-Menon, 2009). Collaborative approaches to decision making are not easy and simple (Connolly & James, 2006).

Social media and marketing are becoming a prevalent tool for developing and maintaining engagement of customers and they have been found to influence purchase shopping behaviour (Ruane & Wallace, 2013). Traditional marketing is viewed as a unidirectional process; however, social media is a multi-interaction process (Scott, 2010). Social media is more effective for pull-marketing strategies, thus using social media to provide communication of information, knowledge, values, and ethics about the product or service offerings (Lagrosen & Grundén, 2014). The literature on social media focuses on marketing aspects such as marketing communications (Mount & Martinez, 2014; Lagrosen & Grundén, 2014; Ruane & Wallace, 2013; LaPointe, 2012; Booth & Matic, 2011). Social media can be used as a strategic tool and thus can improve decision making, and leveraging social media to improve the level of decision making is scarcely covered in the literature. This conceptual paper contends that the application of social media as a strategic decision-making tool is neglected and social media has an important role in ensuring the robustness of decision making.

THEORETICAL FRAMEWORKS

Social Media

Research in social media became business-focused in 2006 and one of the first studies was by McAfee (2006, 2009). McAfee coined the term 'Enterprise 2.0' to identify social media within or between companies, their partners, or customers. McAfee's work focuses on the benefits for business (Deans, 2012). Marketing and social media are popular areas of investigation in the academic literature (Deans, 2012; Angel & Sexsmith, 2009; Baker 2009).

The social media framework (Figure 1) devised by Cook (2008) suggests the four C's: communication technologies, connection, cooperation, and collaboration. The framework is a reference point for business and aids understanding of how to evaluate technology in the business environment and consider their business implications (Deans, 2012).

Cross-cultural communications play an important role in business decisions (Buderi & Huang, 2006; Huang, 2010). Experimentation with communication technologies across cross-cultural borders may prevent business failures such as product launches and outsourcing due to cultural misunderstandings (Ricks, 2006). Social media is changing communications across borders (Bernoff & Li, 2008). Social media will become a pervasive tool of communication as younger people, who grew up with social media, enter the workplace in increasing numbers. Western countries will need to communicate across cultural borders to engage the middle class in emerging countries, as an example (Deans & Miles, 2011). Strategy based on ideas or variety suggests that an abundance of ideas will help to improve the robustness of the strategy. Applying the communication advantages of social media to strategic decision making would help organisations to leverage their competitive advantage and update their strategic ideas more readily.

Connection technologies such as Facebook, LinkedIn, or Twitter enable individuals to remain in contact in the workplace or socially. LinkedIn is a popular social network for business people to stay in contact. However, some countries, such as China, are not supportive of social networks. Mash-ups are potentially powerful by connecting or combining applications to develop new ones that provide added value (e.g., Zillow.com is a mash-up of real estate data and Google maps). Really Simple Syndication (RSS) is another connection tool that provides information feeds, thus connecting publishers with consumers. RSS feeds are an efficient and effective method to channel and distribute information (Cook, 2008). Decision making is reliant on information that is effective and efficiently directed and interactions between individuals, which is an attribute of social media connectedness (Cook, 2008; Calabrese & Zepeda, 1999; and Heck & Marcoulides, 1991).

The framework below (Figure 1) is a method to understand social media technology in an organisational and business context. Social media technologies that are classified under communication require interaction with people and focus on relationships (Cook, 2008). This implies that supportive relationships are required to maximise 'interactivity' between people. Communication is important for cross-border activities by firms (Rifkin, 2006). Social media is a game-changer for communications across borders (Bernoff & Li, 2008). Western companies will need to find new ways to communicate and connect with emerging middle classes in developing countries to promote their goods and to encourage consumers in these countries to purchase them

(Deans & Miles, 2011). Social media technologies that are under the connection classification require little direct contact with people. Interaction takes place over time and individuals (Cook, 2008). Connection software is an approach to bring together friends, business colleagues, and family. They allow global connections that are seamless, cost-effective, and transparent. Mash-ups are a combination of online applications, such as real estate and use of Google Maps (Cook, 2008). Cooperation technologies support group activities, but each contributor retains authority over their ownership of the information (Cook, 2008). The posting of information on video and photo-sharing sites are classed as cooperation social media technologies. It demonstrates the ability to relay information in real time across the globe. Information is also shared in a timely manner (Deans, 2012). Business decisions require information that is timely and thus make this technology valuable in strategic decision making. The final dimension is collaboration technologies and this requires participants to have common goals and apply a coordinated approach to achieving tasks (Cook, 2008). Collaborative technologies facilitate 24/7 working and is extremely useful for bringing a group of people in virtual locations together to solve a problem (Deans, 2012). These technologies save time and reduce travel costs for firms that have heavy travel commitments (Heck, 2009). Social media technologies have a role to play in decision making from improvement in the decision-making process to informing the robustness of the information used.

Figure 1: 4C framework of social media technologies

Cooperation <ul style="list-style-type: none"> • Social Bookmarks • Media Sharing • Social Content • Ranking Sites 	Communication <ul style="list-style-type: none"> • Blogs • Twitter • Instant Messaging • Virtual Worlds
Connection <ul style="list-style-type: none"> • Social Networks • Mash-Ups • Web RSS 	Collaboration <ul style="list-style-type: none"> • Wikis • Conferencing/Teleconferencing • Electronic Meetings

Source: Cook (2008)

Social Media and Marketing Strategy

Social media assists in basic marketing techniques; however, the target market group must be defined. Segmentation in the online environment is easier than in the offline environment (Scott, 2010). Weber (2009) argues that segmentation has changed because of the advent of social media. Segmentation is focused on psychographic and behavioural characteristics because of social media, which is ideally suited for the target group of young people. Importantly, marketers can 'listen' (monitor) to the target group risk-free and 24/7. Target groups can express their opinion openly facilitated by smartphones and mobile Internet. (Smedescu, 2013). Listening to 'conversations' will help marketers learn about specific problems on a brand, which face-to-face dialogue would not elicit. Listening to conversations is also known as 'opinion mining' or 'conversation sentiment analysis'. The purpose of opinion mining is to detect the state of the conversation, i.e., positive, neutral, or negative (Smedescu, 2013). Snyder and Barzlay (2007) and Pang and Lee (2012) have attempted to develop a more complex scale for conversation sentiment analysis. Sentiment analysis is learning through human interaction but suffers from drawbacks such as the level of accuracy given language is complex and is influenced by cultural norms and context. However, sentiment analysis does give a general idea of the feeling and general direction of the conversation. Recording the information will also give the impact of the conversation on social media and enable negative trends to be identified earlier. Monitoring of influencers, e.g., Facebook friends and Twitter followers, is an important aspect of monitoring (Smedescu, 2013).

Social media marketing is part of Internet marketing. Social media is a promotion tool and a sales support tool. The sales support activities of social media are normally referred to as 'social customer relationship management (sCRM)'. In the promotional role, it assists in raising brand awareness and enables sharing of the latest product/service deals. This demonstrates the flexibility and multiple uses of social media (Smedescu, 2013). According to Stelzner (2013), social media marketing is a tool to improve brand awareness, Web site traffic, leads, market research; build brand loyalty and search ranking; and grow useful business partnerships.

Smedescu (2013) considers social media marketing to be new, where prompt customer-centric action is always required, because social media has given consumers increased power.

Firms should think of social media not simply as a marketing channel but an approach to build beneficial relationships with their customers. Companies need to respect the voluntary nature of social media users and accentuate the positives and suppress the negatives. They should provide interesting issues that engage their users to produce relevant content and spread voluntarism (Lee, 2010).

Lee (2010) states that firms must be careful with the tone and manner of the delivery of the content. Developing a unique tone that is 'fun', 'sincere', and 'quick' is a good approach. This is important to communicate an effective message to their customers.

Lastly, Lee (2010) suggests that a cross-media strategy, so that social media is supported with other media and is not considered an alternative. An integrated approach to social media is required to ensure a smooth communication process. A multifaceted approach to blogs is desirable such as the approach used by Intel, Twitter, Facebook, and YouTube. Use of a multifaceted approach to blogs generates a richness of information that is diverse and can be shared with customers.

Decision Making

Decision making is about doing the right thing (Beech, 1990). Individual interactions drive the decision-making process and these different interactions drive the overall decision-making process, such as the direction of a business or school (Calabrese & Zepeda, 1999; Heck & Marcoulides, 1991). Simon (1960) suggests that decision making has three phases: finding a need for making a decision, defining a course of action, and selecting the course from the available actions identified. Decision making needs to be based on understanding and not based on prescriptive recipes (Richardson & Lane, 1994). Decision making in organisations is influenced directly by internal political concerns, beliefs about the process, organisational concerns, and, indirectly, information collected from senior decision makers such as a principal in a school (Heck et al., 1989). The expectation is that organisational context and size will influence the decision-making process. However, Heck and Marcoulides (1991) and Monk (1987), found that the size of an organisation does not affect the decision-making process, at least in a school. However, Salley et al. (1979) found that school size was an important variable that influenced principals' attitudes about staffing. Decision making in schools is relatively uncertain (Heck et al., 1990) and senior staff cannot have all the information required (Heck & Marcoulides, 1991). Uncertainty is affected by political conditions and the external environment, and these become important factors in situational decision making (Heck & Marcoulides, 1991). A clear understanding of the context in which the decision choices are embedded is of significance in the understanding of organisational processes (Heck & Marcoulides, 1991).

Decision-making assessment can be considered rational or normative and is associated with the decision maker following a logical and sequential set of steps. The other approach to decision-making assessment is the descriptive approach, which focuses on what the decision maker is doing (Glasman & Fuller, 1992). An effective decision-making process is a combination of the normative and descriptive approaches, with descriptive decision makers operating under an umbrella of ambiguity and complexity (Glasman & Fuller, 1992; Gorton, 1987). Rational decision making in environmental uncertainty was conducive to organisational outcomes such as schools (Glasman & Biniaminor, 1981). The principal's vision for the school and the conversion of the vision to expectations are attributes that affect positive organisational decision making (Glasman & Fuller, 1992). There are differences in decision making between effective principals and less effective principals, and one significant difference is how they acted to improve student improvement (Glasman & Fuller, 1992; Patterson, 1984). Glasman and Fuller (1992) found differences in their perceptions to how their administrative roles relate to the delivery of the outcomes. Decision making should move away from a recipe approach to solving problems to 'learning mentality' in the preparation of a senior decision maker to use critical analysis (Richardson & Lane, 1994, p. 14).

Decision-Making Processes

Social media gives customers and consumers increased power because of its pervasiveness and young people are more active on social media networks (Smedescu, 2013; and Deans & Miles, 2011). Is a central decision-making process appropriate for organisations that intend to use social media as a strategic decision-making tool? Instinctively, the answer would be probably not. However, one needs to consider benefits and drawbacks of using centralised decision making. The guidelines are defined by the organisation for decision making, but the decision-making process influences how policies or strategies are determined (Saiti & Eliophotou-Menon, 2009).

Greater participation in decision making increases costs, and several studies have supported decisions based on participation over hierarchical decision making, which is less effective than participative decision making (Deetz & Brown, 2004; and Lawer, 1999). Diversity in perspective encourages creativity and leads to better and faster decisions. Problems tend to move from a low level of complexity to higher levels of complexity; 'effective measures', such as participative decision making, need to be adopted. The more complex the problem, the more important organisational buy-in becomes (Saiti & Eliophotou-Menon, 2009, p. 447). Factors that support participatory decision making are the environment (political and social); the size, structure, and departmentalisation of the organisation; and the characteristics of the decision makers, such as their ability, dedication, and motivation (Miller & Lee, 2001). Connolly and Jones (2006) suggest that collaborative work in educational institutions requires participation at every level of the organisation. Furthermore, it demands flexibility, adaptability, and fluency in communications. A study by Saiti and Eliophotou-Menon (2009) on a school in the Greek educational system suggests that there is limited stakeholder involvement in the decision-making process. The study identified a number of weaknesses in the Greek case of centralised decision making. Decision making on Greek educational policy (design and implementation) is the sole responsibility of the Minister of Education. Final decisions on educational policies are made by an administrative hierarchical system of the Ministry of Education. The centralised structure at the Ministry of Education inhibits diversity in participatory decision making. Given that education is a major investment for a country, it would be expected that a collaborative approach to decision making would be a strong contender. Collaborative leadership is necessary to form inclusive relationships that bring in experienced actors and smooth the successful implementation of educational plans. Research by Drucker (1993) and Ghoshal and Bartlett (1995) have demonstrated that most successful organisations harness the commitment and knowledge of their managers to create an environment that promotes creativity and speed up implementation. The interaction between the organisation and the decision makers contributes to an effective decision-making process (Saiti & Eliophotou-Menon, 2009).

The above analysis has implications for strategists who use social media as a decision-making tool. Conversations from social media are voiced openly and the polarity of the information is typically honest and unbiased. This is because of the nature of the target group, who are young (Smedescu, 2013). In mature organisations, the top decision makers tend to be older than the target groups and the application of a centralised decision-making process would have similar consequences to the Greek educational case. Social media extends across global borders, operates 24/7, and gives customers and consumers increased power. This implies that decision-making processes need to be responsive to customer-centric needs. Collaborative leadership aids decision making, which is responsive to customers' need, because it would be inclusive of knowledgeable actors with diverse experience. However, participative decision making is slow and time-consuming. There needs to be a trade-off between centralised decision making and participative decision making when decisions are made on social media sentiment analysis.

Decision Making and User-Generated Content (UGC)

One source of rich information for making strategic decisions is the application of user-generated content (UGC) in social media and in particular blogs. This is important when developing strategy based on user-generated content from blogs to understand how it will affect decision making. Studies on user-generated content on decision making from blogs assume it is a single-stage process (Dellarocas et al., 2008; and Forman et al., 2008). Ignoring the multistage concept of decision making for information generated by blogs may introduce bias in the process and the parameters (Andrews & Manrai, 1998). The multistage process for decision making may generate managerial insights that are not offered in the single-stage models (Gensch, 1987). Evaluation of the

information is known as the screening stage, followed by the choice stage, which requires additional information for due diligence. The final stage is the contract stage, which, in the case of venture capitalists (VC), discusses terms of finance. The stages identified are applicable to ventures seeking finance from venture capitalists (Tyebee & Bruno, 1984).

Culman et al. (2010) identified the challenges faced by organisations in implementing social media applications such as blogs to interact with customers. They found three factors—mindful adoption, community building, and absorptive capacity. Increase in negative posts attract additional readers and initially will rise exponentially and then stabilise at a point in time (Aggarwal et al., 2011). Readers of blogs exhibit a variety-seeking behaviour (Singh et al., 2010; and Huang et al., 2010). Traditional mass media was not as influential as social media applications such as blogs, YouTube, and MySpace were on U.S. presidential candidates' performance in 2008 (Wattal, et al., 2010). To develop a strategy, the user-generated content should be representative of the users and the challenge is to encourage users to engage with the blogs. Firms need to ensure the implementation of the blogs are successful and be mindful of the three factors identified by Culman et al. (2010).

One of the earliest works on user-generated content is by Godes and Mayzlin (2004) and they demonstrated that online conversations can measure user-generated content. The relationship between financial information associated with eWOM and final financing with data predominately from an online blog (VentureXpert) demonstrated the ability to create user-generated content from VentureXpert and its influence on the financing decision in new ventures (Aggarwal et al., 2012). Chevalier and Mayzlin (2006) examined the relationship between online reviews on the relative sales of two online booksellers (Amazon (Amazon.com) and Barnes & Noble (BN.com)). Increased reviews on one site for a given led to an increase in sales compared to those on the other site, and negative reviews had a greater impact on sales than positive reviews. Forman et al. (2008) found that an increase in reviews leads to increased sales regardless of the state (positive or negative) of the reviews. Liu et al. (2010) investigated the forecasting accuracy of user-generated content on box office sales. The result demonstrated that the volume of user-generated content at different phases of the movie life cycle can significantly improve the accuracy of box office sales in the first week and total box office sales. Useful information can be elicited from user-generated content and they can be used for forecasting, which is a valuable attribute for developing strategy.

The next discussion is user-generated content on multistage decision making. Multistage decision making is used when limited resources are available and can reduce the high cognitive processing for large quantities of data (Roberts & Lattin, 1997). Screening is required where limited information is available and time is limited (Bettman et al., 1998; Bettman & Park, 1980). One benefit of screening is that decision makers can reduce the processing required at different levels and can spend more time actively seeking comprehensive information for each stage (Aggarwal & Singh, 2013). Research suggests that a multistage decision-making process is more effective than single-stage decision making. The influence of the attributes varies across different stages (Roberts & Lattin, 1997; and Manrai, 1995). Research by Roberts and Lattin (1997), Andrews and Srinivasan (1995), and Roberts and Lattin (1991) suggests that multistage decision making improves the predictive accuracy over single-stage decision making. Research by Aggarwal and Singh (2013) on the influence of blogs on venture capital multistage decision making indicated that blog coverage helps with the screening phase and indirectly influences the final stage (contract in venture capital parlance). More decision makers help to create better alternatives to a negotiated agreement. The context of their research implies that wrong decisions lead to significant losses for the decision makers. It would appear that there is considerable motivation to collect and analyse information at the choice stage of decision making. Previous research suggests that the research context (positive or negative) does not lead to significant losses for the decision makers. The contradiction in the results may be that the decision makers in the previous studies were not highly motivated to collect data beyond the user content-generated information. Aggarwal and Singh's (2013) work is applicable to situations where the motivation to avoid making a wrong decision is high. They give the example of car buying, but this is also true for strategic decisions. Aggarwal and Singh (2013) suggest that strategic decision making should gather user-generated content information and also gather additional information to improve the decision-making process and minimise the risk of coming up with bad or wrong decisions. Strategists cannot rely only on user-generated content information and should use a process of triangulation to gather additional information to validate and expand it.

Decision Making and Uncertainty

The uncertainty surrounding vital complex decisions in organisations has long become a barrier to effective decision making (Cohen & March, 1974). However, Tjosvold et al. (2012) found from their research that uncertainty has a positive role (Kahnesman & Klein, 2010). When managers recognise uncertainty in decision making, that recognition leads them to seek opposing views and ask questions from those with different views (Tjosvold, 2008, 1998). Tjosvold et al. (2012) suggest that recognition of inadequacies in one views can lead managers to seek controversial views in an organisational setting. Situations where uncertainty is decreasing will lead to less intellectual and emotional demand on managers and thus improve the effectiveness of the decision making (Berry, 2000; and Cohen & March, 1974). When managers recognise and experience uncertainty, this leads to the promotion of decision making (Tjosvold et al., 2012; Reynolds & Hrudey (2006); and Bukszar, 2003). Notably, this uncertainty can lead managers to seek open-minded discussions of diverse ideas to develop solutions, which they consider to be effective (Tjosvold et al., 2012). Confidence that one is right can impede controversial seeking decision-making ideas, but confidence that one can potentially understand the problem does not inhibit controversial seeking decision-making ideas (Kahnesman & Klein, 2010).

Cooperative goals and uncertainty complement controversial seeking decision making. Managers who have cooperative relationships are disposed to controversial seeking decisions even when uncertainty is not much. Such managers may think conversations are productive even if they have confidence in their opinion. In a competitive environment, managers need to feel unsure before openly conferring with colleagues (Tjosvold et al., 2012). Superiors see their views and goals as cooperative when approaching subordinates, but subordinates, when approaching superiors, are more likely to view their goals as competitive (Tjosvold et al., 2012; and Hogan et al., 1994). Individuals who adopt a constructive controversial and open-minded discussion of opposing views are an important antecedent for an effective individual manager decision making and has also proved to be an effective antecedent for team decision making (Tjosvold et al., 2012). Because of the nature of strategic decision making, uncertainty is prevalent and the literature is suggesting that controversial seeking decision making will lead to more effective solutions.

Participants who are in a negative mood gathered, elaborated, and processed information and more cautiously made decisions with more fluency and flexibility than participants in a positive mood. It would appear that negative moods give rise to a systematic approach to decision making. Positive moods induce heuristics processing. Participants exposed to negative mood states decreased their positive mood states and increased their negative mood states. Those inducted to positive mood states increased their positive mood state and decreased their negative mood state (Mohanty & Suar, 2014). Negative mood states increase the involvement in the problem (Mackie & Worth, 1989). User-generated content that is negative on the organisation will induce better information processing, leading to more effective decision making. This assumes that the negative content will induce negative mood states. Should organisations using social media user-generated content look for negative outcomes and ignore positive outcomes to promote effective decision making? Does pessimism make for more effective decision making? Higher perceived uncertainty leads to lower behavioural intentions to undertake the activity. Perceived uncertainty is lowered if the actors in the environment play a role in decreasing the uncertainty (Yen, Hung, & Liu, 2014). Top management needs to articulate the benefits of the strategy to decrease the level of perceived uncertainty in the organisation (Yen, Hung, & Liu, 2014). Uncertain outcomes sometimes generate negative evaluations and other times positive evaluations. Affective decisions are influenced by uncertainty, with consumers preferring uncertainty in the outcome over simply offering more to consumers. When promotions involve uncertainty, increased information helps cognitive and affective decisions. The more gifts that are included in the promotion, the greater the decrease in uncertainty for the consumer, but it could be detrimental to consumer purchase behaviour. Cognitive decisions require information and consumers making such decisions view information as positive. However, consumers making affective decisions view uncertainty as positive (Laran & Tsiros, 2013).

Strategic decisions are made frequently, but not all are important or publicised. Some strategic decisions are data-driven (large quantity of historical data) and others are based on judgement and not based on historical data. The decision makers would have no measures to judge the uncertainties. Whether it is the combination of the above approaches or a singular judgement plays a crucial role. An emerging tool to help with judgmental strategic decision making is the prediction market. Prediction markets require a market to be developed and a set of bets is placed by individuals based on their desired outcome. When the event occurs, the

market is closed. The individuals will buy a contract for less than a dollar, which equates to the probability of the outcome for the event. This approach is suitable, for example, on whether the elected U.S. president will be a Democrat in the 2012 election (Borison & Hamm, 2010). The presentation of the information on certainty affects decision making and better ways of conveying estimation and presentation of uncertainty is paramount. Forecasts especially made on managerial judgment need to be conveyed clearly and effectively (Goodwin, 2014). Decision makers with more business experience are able to apply and adopt causation-based logic in making the decision than less-experienced managers. The manager's experience of the organisational environment affects the decision-making process by influencing the interpretation of different schemas and allows him to make diverse interpretations and thus decisions on similar 'situations' (Nummela et al., 2014). The implication is that experienced managers are better placed to make strategic decisions, as they have the knowledge to apply the 'what if' approach. Should only experienced business managers make strategic decisions based on user-generated content?

Social Media and Business Performance

E-tailers' use of social media draws upon social capital and social networks to promote their online business (Qu, Wang, & Zhang, 2012). Social capital is defined as 'the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit (Nahapiet & Ghoshal, 1998, p. 243)'. Embedded resources can be information and advice (Zagenczyk et al., 2008) and emotional support (Mehra et al., 2006) and reputation due to their central position in the network (Balkundi & Harrison, 2006). These resources can lead to a competitive advantage (Brass et al., 2004). The addition of hyperlinks to other e-tailers' storefronts undermine business performance of the focal e-tailer and hyperlinks pointing to the focal e-tailer's main storefronts boost the e-tailer's business performance (Stephen & Toubia, 2010). However, Qu, Wang, and Zhang (2012) found that hyperlinks were beneficial to e-tailers' storefronts because they reveal their social alliance network.

The number of inquiries is related to business performance. A high number of inquiries is a positive outcome for business performance. It should be noted that 80 percent of the inquiries were resolved satisfactorily. E-tailers seeking advice in online communities may cause social risk to the e-tailers, and they could be portrayed as incompetent and inexperienced by potential buyers, which will undermine their business performance. Friendship ties (positive social relationship) have a positive effect on business performance. Bi-directional or unidirectional friendship ties are beneficial for business performance. Sharing information online is beneficial; seeking information without contributing undermines online business performance. Advice seeking should be balanced by advice giving (Qu, Wang, & Zhang, 2012).

Implication to Management

The decision-making process requires the collection and analysis of information. However, the quality of decision making is improved and the robustness of the outcomes strengthened by using a multistage decision-making process (Andrews & Manrai, 1998; Gensch, 1987; and Simon, 1960). The implication is that strategic decisions should be based on a multistage approach and 'lesser' decisions could be based on the single-stage decision-making process. Social media can help to unravel patterns and behaviour, which are valuable in spotting opportunities and trends. It is clear social media has a role in strategic decision making for online businesses. There is a level of risk when business environments exhibit uncertainty and this uncertainty will affect the decision-making process. Businesses will always experience risks in the environment, so it is important to minimise the uncertainty risks in the decision-making process.

One approach to minimising risks is to listen to conversations online. Conversations are open and unbiased in the online environment (Smedescu, 2013). Consequently, constant monitoring of social media will provide rich information that can be utilised in the strategic decision-making process. If online information gained from social media is valuable in making strategic decisions, this could imply that the decision-making process should be near or at the top of the organisation. Centralisation of decision making is not necessarily a good thing and weaknesses have been identified in this method of decision making (Saiti & Eliophotou-Menon, 2009).

One source of information that helps the strategic decision-making process is user-generated content, such as blogs and feedback (incoming and outgoing). The issue for management is decoding the information because information being collected in an open environment does not necessarily mean patterns and trends are easy to discern or are reliable. Although social media can provide valuable information for strategic decisions and strategic planning, a level of triangulation of the information is necessary. One approach is that user-generated content is subject to a multistage decision-making process (Andrews & Manrai, 1998), which will improve decision making because it will foster a collaborative and participative environment (Saiti & Eliophotou-Menon, 2009). A participative and collaborative environment in an organisation requires all levels to be involved in the decision-making process. This approach to decision making is supportive of an organisational environment that uses an emergent approach to strategy development. The diversity of information used in developing emergent strategy should focus on the negative outcomes and will lead to effective involvement (Mackie & Worth, 1989). However, the positive and negative outcomes could be contradictory and thus is one method to condense the information before focusing on the negative outcomes to facilitate decision making.

Decision making can be based on affective and cognitive approaches; both may be appropriate for environments that are subjected to uncertainty. Cooperative organisational environments complement uncertainty and can lead to controversial seeking decisions (Tjosvold et al., 2012). Strategic decision making in uncertain environments needs to be different and unique if business performance is to strengthen. There is no benefit in making strategic decisions that are similar to your competitors. User-generated content provides additional information that minimises the effects of uncertainty in business environments. Strategists analysing user-generated content should be of an optimistic temperament because in this mood state, the processing of information would be more effective, and Nummela et al. (2014) found that experienced managers make better decisions. The use of social media as a tool to improve decision making and, ultimately, business performance gives rise to a positive outcome. However, if the information is not presented so that it is understandable and can be used for forecasting, then no amount of tinkering with the decision-making process can overcome this.

FUTURE RESEARCH AND RESEARCH LIMITATIONS

This paper is a conceptual paper and is thus a research limitation. The work in the chapter could be developed by defining the different stages and roles in a multistage decision-making process that uses user-generated content. The implementation of a multistage decision-making process that is supportive of an emergent approach to strategy development is an area that is underdeveloped in the literature. Review of the literature supports a decentralised approach to the decision-making process, but sometimes this is not always possible or desirable. Under what conditions is a centralised approach appropriate when using user-generated content?

CONCLUSION

The use of social media as part of the decision-making process is an influencer on business performance. How the information derived from user-generated content is filtered and used will affect the significance of its usability. Information that is subjected to a multistage decision-making process makes for better problem solving and controversial decision making. The mood of the persons in strategic decision making is an influencer on the quality of decision making. Decisions that are made in a collaborative and participatory business environment are factors that improve decision making. The analysis suggests that controversial decision making depends on the organisational and business environments and leads to decision making that is effective and makes a difference to the organisation's business performance positively.

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THE INFLUENCE OF INTERNAL MARKETING ON GRADUATE EMPLOYEE SATISFACTION WITHIN RETAIL BANKS IN SOUTH AFRICA

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ABSTRACT

The primary objective of the study is to investigate the influence of the traditional internal marketing mix (internal product, internal price, internal distribution and internal promotion) on the satisfaction levels of employees participating in graduate development programmes (GDP) within retail banks in South Africa. Primary data was gathered using a questionnaire with items measuring the internal marketing mix, employee satisfaction and affective commitment. The sample consisted of 64 GDP employees from three of the major banks in South Africa. The data was factor analysed and a stepwise regression was performed. The findings stipulate that employee satisfaction is influenced by internal product, collaborative culture and organisational structure.

Keywords: Internal marketing, employee satisfaction, graduate development program (GDP) employees, retail banking

INTRODUCTION

The growth in the banking sector in South Africa implies that the country is becoming a mature economy, with increasing levels of competition (Global Entrepreneurship Monitor, 2011). Competitive differentiation becomes further challenged by the homogenous nature of the retail banking industry as there is very little differentiating the banks, and imitation of any innovation is inevitable. For this reason, a market-driven strategy that enables retail banks to deliver superior quality is essential, as service quality is the only real differentiator and key to building a competitive advantage. Given its employees who create the service experience, the employee as the internal customer becomes the organisation's most valuable asset. One of the most successful approaches for understanding and satisfying the needs of the internal customer market is through the implementation of an internal marketing strategy. Chu and Yeh (2013) describe internal marketing as a "planned effort using a marketing-like approach to internal customers in an organisation to deliver customer satisfaction through a process of creating customer oriented employees". The aim of internal marketing is to ensure that employees feel valued by the organisation. This in turn translates into positive employee attitudes towards their work, including satisfaction and affective commitment which ultimately lead to customer satisfaction. In order to accomplish the internal marketing objectives, an internal marketing mix similar to the external marketing mix is required. In this way the four marketing mix elements are applied internally, resulting in the internal marketing mix namely, internal product, internal price, internal distribution and internal promotion. The underlying assumption of such a strategy is that when employees' needs have been met, they experience higher levels of satisfaction and become more motivated to provide higher levels of service quality to both internal and external customers, resulting in higher levels of customer satisfaction and retention (Hammond, 2011). Further to this, employee satisfaction has been linked to higher levels of affective commitment, meaning that employees who are satisfied become more committed to organisations and as a result stay with them for longer, perform better, and go the extra mile to serve both internal and external customers (Lumley *et al.*, 2011:107). Given that employees are key to ensuring that customers are satisfied, achieving a competitive business advantage depends on understanding and acting on what it takes to maximise employee satisfaction and commitment (Leonard & Murphy, 2013).

LITERATURE REVIEW

Each of the traditional internal marketing mix elements contains factors which are very similar or are closely aligned to the predictors of employee satisfaction. By implementing the traditional internal marketing mix proposed in the study, each of these employee satisfaction predictors would be addressed through a formal programme, in that way contributing to higher levels of employee satisfaction. If successfully implemented, these internal marketing activities would ensure the following outcomes: better job design would ensure better role fit and role clarity (internal product), and ensuring that jobs match the individual's abilities and competencies (Weiten *et al.*, 2008:404). Through training and development (internal product), the right processes (internal process) and empowerment (internal product), these GDP employees could be equipped with the required skills, knowledge and authority to perform their jobs competently (Gu & Siu, 2009:565; Che Ha *et al.*, 2007:137). This, in conjunction with better integration and coordination (internal distribution) across functions and more participative leadership styles (internal people) would reduce service failures, since operations and functions would be better aligned with customers' needs and behaviours during the service encounter. As a result, conflict with customers as well as friction between back office and front office employees would be reduced, improving relations with co-workers (internal people) which results in higher levels of employee satisfaction. This would help reduce stress and emotional labour costs (internal price) (Grayson & Sanchez-Hernandez, 2010:9; Gounaris, 2008b:75). Communication (internal promotion) would be more effective, and regular performance feedback (internal physical evidence) would lead to increased satisfaction. The communication of a corporate vision (internal promotion) that binds the employee emotionally to the organisation would also lead to greater commitment, productivity, job satisfaction and employee retention (Appelbaum *et al.*, 2009:243). Further to this, an enjoyable internal physical environment (internal physical evidence) which expedites the development of personal relationships and teamwork, is beneficial for a satisfying internal customer (employee) experience (Yilmaz & Ergun, 2008:292). In this way internal marketing mix aims at addressing the satisfaction predictors in order to create value for both the employee and the organisation (Sincic & Vokic, 2007:5-6).

PROBLEM STATEMENT

The Harvard Business Review states that 40-80% of customer satisfaction is determined by the customer-employee relationship. The difference in the way customers view service quality is directly related to service employees. Both internal and external banking employees develop relationships with customers, and when these relationships are severed, the organisation is subject to massive costs. These costs include the loss of productivity of employees, as new employees need to be recruited into the organisation who do not have the desired levels of knowledge or experience (Cascio, 2012). For this reason, if employees are satisfied at work they are more likely to be productive, have lower absence rates and increased morale which leads to higher levels of employee retention (Moodley, 2008:68). In addition to this, employees who are satisfied with their jobs treat customers better, which also results in greater levels of external service quality (Ahmad, Wasay & Malik, 2012: 532). Banks will not be able to prosper in the long term if they do not understand the importance of satisfaction and the variables influencing this. The paper focuses on the importance of the traditional internal marketing mix and how these elements influence employee satisfaction. The problem statement therefore set out to determine the influence that the traditional internal marketing mix elements have on employee (graduate) satisfaction within the retail banking industry in South Africa. Further to this, the study also aimed to identify whether a link between employee satisfaction and affective commitment could be observed.

RESEARCH OBJECTIVES

The primary objective of the study is to investigate the influence of the traditional internal marketing mix on employee satisfaction from GDP employees' perspective in order to enhance their satisfaction at retail banks with graduate development programmes in South Africa. In addition to this, the relationship between employee satisfaction and affective commitment is also explored. The following hypotheses were put forward:

- H1: There is a significant positive relationship between the internal product and GDP employee satisfaction.
- H2: There is a significant positive relationship between the internal price and GDP employee satisfaction.

- H3: There is a significant positive relationship between the internal promotion and GDP employee satisfaction.
- H4: There is a significant positive relationship between the internal distribution and GDP employee satisfaction.
- H5: There is a significant positive relationship between GDP employee satisfaction and affective commitment.

RESEARCH METHODOLOGY

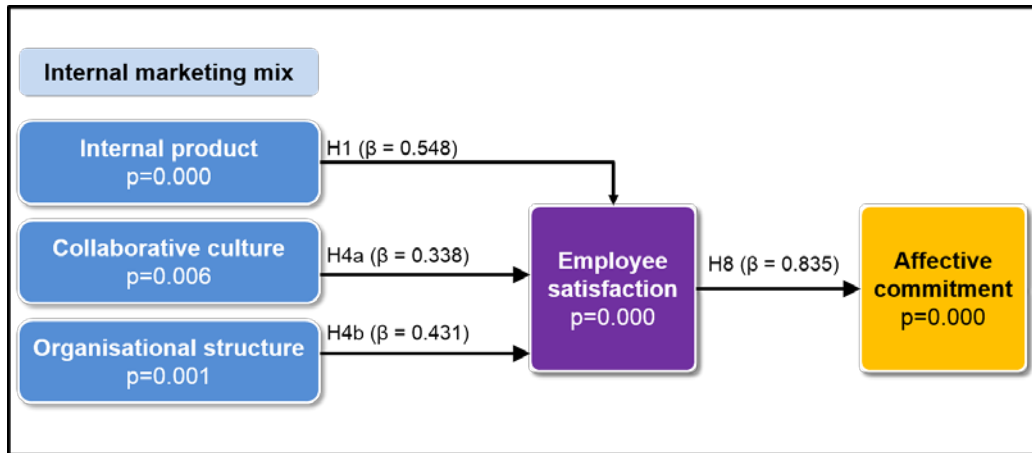
A descriptive research design which is quantitative in nature, was used. Given that the GDP group of employees is a small population and employees could be contacted with ease at a low cost, it was decided that a census approach would be most appropriate. All GDP employees from the South African retail banks offering GDP programmes were approached to participate in the study. Three of the big four retail banks of South Africa agreed to participate in the study, making up the sampling frame. These three retail banks were seen to be representative of the retail banking industry in South Africa as collectively, these three banks hold 62.1% of the South African market share (The Banking Association of South Africa, 2013). All three hundred and sixty GDP employees in the sample frame were contacted to participate in the study. A combination of both person administered and electronic survey methods was used in accordance with the participating bank's needs. A total of 64 usable questionnaires were returned. Regression analysis was used to test the hypotheses relating to the relationship between the internal marketing mix elements and employee satisfaction, and to test the relationship between employee satisfaction and affective commitment.

DISCUSSION OF RESULTS

Regression Analysis

Once the assumptions of regression analysis had been tested and the violations were not deemed to be serious, regression analysis could be performed. Factor scores used in the regression analysis were computed based on the refined measures and not the original scales. Internal promotion was not included in the regression analysis as the scales were considered unfit from a validity perspective and discarded as a result of the EFA. A positive relationship was predicted between internal product and employee satisfaction. The results from the regression results support the hypothesis ($\beta = 0.548$, $p < 0.05$). Thus, the null hypothesis was rejected. The adjusted R² – value of 0.289 indicates that approximately 28% of the variance in employee satisfaction was predicted by internal product. A positive relationship was predicted between internal price and employee satisfaction. The β results from the regression results support the hypothesis ($\beta = 0.216$). However, the p-value is greater than 0.05 ($p=0.86$) and therefore not statistically significant. The hypothesis was therefore rejected in favour of the null hypothesis. Internal distribution emerged as a two-factor solution and was split into collaborative culture (H4a) and organisational structure (H4b). A positive relationship was predicted between collaborative culture and employee satisfaction. The results from the regression results support the hypothesis ($\beta = 0.338$, $p < 0.05$). Thus, the null hypothesis can be rejected in favour of the alternative hypothesis. The adjusted R² –value of 0.114 indicates that approximately 11.4% of the variance in employee satisfaction is predicted by collaborative culture. A positive relationship was predicted between organisational structure and employee satisfaction. The results from the regression results support the hypothesis ($\beta = 0.431$, $p < 0.05$). Thus, the null hypothesis can be rejected in favour of the alternative hypothesis. The adjusted R² –value of 0.185 indicates that approximately 18.5% of the variance in employee satisfaction is predicted by organisational structure. When entered into the regression equation individually through step-wise regression, the highest level of variance in employee satisfaction is predicted by internal product. This was followed by organisational structure and finally by collaborative culture. Figure 1.1 provides an overall summary of the regression results

Figure 1.1 Summary of regression results



Source: Authors' own construct

The alternative hypothesis H1 (internal product), and the alternative hypotheses H4a (collaborative culture) and H4b (organisational structure) were accepted. H2 (internal price) was rejected as internal price was not regarded as statistically significant, and therefore not considered to be a predictor of employee satisfaction. Further to this, H3 could not be tested as the subscale for internal promotion (pertaining to H3) was discarded as a result of the EFA due to poor construct validity.

MANAGEMENT IMPLICATIONS AND RECOMMENDATIONS

Internal product

As a starting point, retail banks should proceed with their recruitment strategy and ensure the correct fit between employees and the position for which they are being recruited. Not all employees feel comfortable in customer facing roles or in positions of high autonomy. It is essential therefore that the employees' values and career aspirations fit with the role and the organisational culture. Stringent screening of employees as well as the participation of other employees from the employing department in the interview process, can help ensure that the right person is recruited into the organisation and into the team. Once GDP employees have completed their programme and move permanently into a department, it is essential that they are provided with sufficient training relating to their job and the products or services they will be offering. In addition to this, employees will require soft skill training to enable them to handle the 'people' side of business more eloquently. The training provided facilitates confidence and professionalism and as a result employees gain the respect of customers. Ongoing coaching and mentoring are required for continual guidance and development. Group coaching sessions could be effective in the development of leadership competencies and as a support structure to GDP employees. Coaching and mentoring are vital for the transfer of knowledge, and in addition to this, on-the-job coaching is important for ensuring that skills learned during training programmes are entrenched and utilised on a continual basis. Coupled with training and development is the need for clearly defined career paths which map out which positions employees are able to move into either from a promotional or lateral perspective. Competency assessments should be linked to these career plans so that current skills and competencies are assessed against the new position, and any gaps between these can be identified and managed which should then feed into the training and development plan. Employees should also have the autonomy to take charge of their own careers and more than this, have the autonomy to make decisions that affect their work. Employees who are empowered to meet unique customer needs and requirements find more meaning in their work and are generally more satisfied. Daily production meetings in which employees are encouraged to participate and provide input contribute to feelings of empowerment, resulting in satisfaction and commitment. Finally, employees must know what they are expected to deliver. For this reason, clear job descriptions with clearly defined KPIs are essential.

Collaborative culture

Retail banks should adopt a clan-type collaborative culture which encourages and supports openness, participation, teamwork, personal involvement and empowerment with a strong internal focus. This kind of culture will direct employee behaviour and attitudes, and establish a foundation of trust and close interpersonal relationships which will in turn facilitate the better sharing of knowledge and information. Linked to a collaborative culture is the need for business units to come together in a cross-functional manner. In this way, diverse talents and viewpoints can be brought together in an effort to understand external customer expectations and develop meaningful solutions to meet or exceed these expectations. Through better coordination and integration, knowledge can be shared and employees come together to provide higher levels of service quality. In this way the collaborative intelligence of employees is increased, allowing for the better synchronisation of activities and the creation of value throughout the value chain

Organisational structure

To support a collaborative culture, retail banks should adopt flatter, more decentralised organisational structures that allow for better integration between business units and the better flow of information across all levels of employees. A matrix structure would provide the best fit for a collaborative culture as different employees from various business units are assembled into teams for the purpose of various projects. These kind of structures encourage open communication and involved decision-making. Employees are able to communicate freely with all levels of management and across business units, allowing employees to better serve their internal and external customers. Decentralised structures support the empowerment of employees and when employees feel empowered and involved, they experience higher levels of satisfaction and commitment.

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INNOVATION IN INDUSTRIAL ENTERPRISES IN RELATION TO INTER-CULTURAL MANAGEMENT

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ABSTRACT

The success of an enterprise depends on its increasingly ability to innovate. The leaders are recognizing the importance of design thinking in shaping the business strategy. Innovating industries are gearing towards thinking professionals having the ability to integrate creativity across multiple sectors in the different organizational functions of engineering, management, manufacturing, communication, etc. The business complexities are on a rise however, still the most important success factor for an enterprise depends highly upon the simple most fundamental principle - the need of communication within and outside the organization. There is a huge concern among all industries on how to maintain and nurture effective inter-cultural communication. The diversity is increasing, workforce is growing and the businesses are expanding to all over the world, and therefore inter-cultural management is becoming an integral part of every organization. This also paves the path for the management to understand and at the same time enables them to ensure that they are being understood across all cultural boundaries and diversities.

Keywords: Innovation, inter-cultural management, enterprises, organizations, diversity, inter-cultural teams

INTRODUCTION

In the present economic environment, industrial enterprises have learned that innovation is one of the most important factors for growth. Innovation is a learning process for any enterprise and by perusing innovation enterprises can discover and implement new ways to use their existing technology. By innovating, organizations can operate more efficiently and effectively and have a better chance to align their business and strategic goals. Staying competitive is one of the premier goals for an enterprise and they look for different ways for sharing ideas and doing innovation within their organization to achieve that goal. Individuals and employees should find time to think about new products and services and discuss ideas and develop concepts and take their enterprise a step closer towards innovation. At the same time organizations can use different approaches like establishing a dedicated full-time team, or organizing short and intense innovation workshops, or arranging to have frequent innovation time for their employees to take the enterprise towards the path of innovation.

A major concern which arises within an organization also persisting globally in every enterprise, is how the application of these innovative solutions reaching down the hierarchy as they need to come from the top management. To combat such concerns and be effective, management needs to be cross-culturally sound and diverse and it also requires them to be collaborative and have an open communication among themselves and within the organization. Lot of affect is put in place by the management to innovate to meet the complex needs of the customer, stakeholders, their employees and eventually the overall society. This indicates a need to better understand the cultural differences of employees, customers, stakeholders and the top management itself along with their innovating styles which can enable or hinder the innovation in an enterprise.

A diverse workforce has become a reality in today's world for all the industrial enterprises. The impact of cultural diversity varies with the type of organization, their environment and the overall strategy implied by the enterprise. The growing trend for majority of the enterprises is to move from their domestic to more of multinational strategies of operation to make them as a true global organization, hence the significance and impact of cultural diversity is increased remarkably (Adler, 1997). Therefore, the management of inter-cultural

differences has become more important for creating advantages and getting competitive edge over the competitors.

The authors of the paper have conducted a study to look into different kinds of innovation styles with relation to inter-cultural management. It has been followed by an enterprise having many offices in different parts of the world. The research is done with the help of a multinational company (name withheld) which has many operating units around the globe. The operating units considered for the study are in USA, India and Germany and the emphasis of the research subject was to compare the impact of innovation and inter-cultural diversity in these operating units. The results of the study were compared to the best practices of innovation and inter-cultural management style for these above mentioned countries, which is described later in this paper.

INNOVATION

Innovation is both a process and a product (Collins 2005). Innovation can be divided into two different streams, one which explores the organizational and social processes that produce innovation, such as individual creativity, organizational structure, environmental context, and social and economic factors (Kanter 1983). The other stream approaches innovation as an outcome that manifests itself in new products, product features, and production methods (Abernathy & Utterback 1978). Below are some definitions from the industry leaders and the educators from around the globe on what does innovation mean to them and to their enterprise:

“When a company innovates in a way that is truly disruptive, it can create new markets or set new standards in existing markets.” (Meg Whitman, President and Chief Executive Officer, HP).

“Ideas that don’t work today could be critical to the solution of a problem tomorrow.” (Jeff Mauzy and Richard Harriman, Authors of Creativity Inc)

“Every organization needs one core competence: innovation.” (Peter Drucker, Educator and author).

“Innovation is not a private act—it is seldom the product of a single individual’s intellectual brilliance. Innovation is a product of the connections between individuals and their ideas.” (Gary Hamel, Author of *Leading the Revolution*).

“Innovation is not absolutely necessary, but then neither is survival.” (Andrew Papageorge, Business strategist).

“Many ideas grow better when transplanted in another mind than the one where they sprang up.” (Oliver Wendell Holmes Sr., Author).

“Invention is the process of discovering things that have never been discovered before. Innovation is the discovery of new ways of creating value. Not everyone can be an inventor, but everyone can be innovative.” (Stephen Shapiro, Author of *24/7 Innovation*).

“I am consistently amazed by the creativity and brilliance of the people at our company. It’s how I felt when I first picked up an HP calculator as a teenager and knew instantly that I wanted to work here. Innovation is at the heart of what we do, and it’s that magic that has brought us from a one-car garage in Palo Alto to the world’s largest technology provider.” (Martin Fink, Executive Vice President and HP Chief Technology Officer).

For an industry or an enterprise to innovate, they must meet two criteria. The first criterion is novelty – although innovations need not necessarily be original, they must be new to the user, or the context, or the application. The second criterion is improvement – to be considered an innovation, a process or the outcome must be either more effective or more efficient than preexisting alternatives. These two criteria are followed up with four distinct elements of innovation that every organization should follow to grow, to be successful and to be a global leader (Camps & Marquès, 2011).

- The process of innovating or generating a novel product or solution, which involves technical, social and economic factors.

- The product or invention itself, an outcome that is also called as innovation proper.
- The diffusion or adoption of the innovation through which it comes into broader use.
- The ultimate value created by the innovation.
-

ROLE OF INNOVATION IN INDUSTRIAL ENTERPRISES

All enterprises throughout the world are experiencing what can be legitimately called as revolution. Dealing with rising basic material and energy costs, increased international competition, older technology getting obsolete and new technologies emerging on daily bases and with increased use of automation and computers are all becoming a major challenges for today's enterprises. Survival in this demanding modern era is becoming a question mark for all players. Now at this time when finance is becoming expensive, the company's liquidity is bordering on crisis the need of a game changing idea is needed, which comes in the form of creativity and innovation, as it is more pressing than ever and as competition needs to fall by the side way, the rewards for such successful products and process are way greater.

Innovation calls for a special entrepreneurial and management skill from the managers, the cooperation of the committed and diverse workforce and an environment which will create the optimum over all the conditions to encourage success in an enterprise. Furthermore, a firm should always look to create successful innovation teams and these teams could of different criteria like:

- Dedicated
- Self-Sufficient
- Inter-Culturally Diverse
- Collocated

Dedicated teams can focus easily and self-sufficient teams can do what needs to be done without any external support. Diverse teams can work together to decide and come up with innovative ideas and small collocated teams can self-organize faster. Every enterprise needs to realize that their employees and managers should dedicate a good portion of their time to innovation. Employees how are dedicated to one team get the opportunity to focus, they know how to use their time because their priorities are clear. They produce better work and they do it more efficiently and economically, also by focusing on the same problem consistently there are a greater chance for innovative breakthrough.

Main focus or goal for every organization is to grow and prosper and be a leader in every division. To reach to such heights enterprises along with their employees needs to learn and adapt to modern century innovation model which not only comply with the traditional demands of the society but also takes into account the demands of the present society. There are five levels in the modern innovation model (Global enterprises, 2007):

Research and development (R&D) collaborations:

Major companies share their scientific data and results with universities and vice versa and further these collaborations can be organized in a formal framework (partnership agreements, clusters or poles of competitiveness). This kind of innovation level is the most frequent in the business world. However, it's very often enclosed within the R&D department and is limited to only technology innovation.

Employee's involvement in the innovation processes:

Innovation is not just the matter of technology and technicality only, other innovation models like business model innovation, managerial innovation, and services innovation, innovation in communication, marketing and finance are as important for any organization. Often, these alternative kinds of innovations provide a company with more value to its products or services than putting on the market a raw new technology. This second pillar of innovation dynamics involves all the employees of the enterprise regardless of the function, the skills or the hierarchy in the organization.

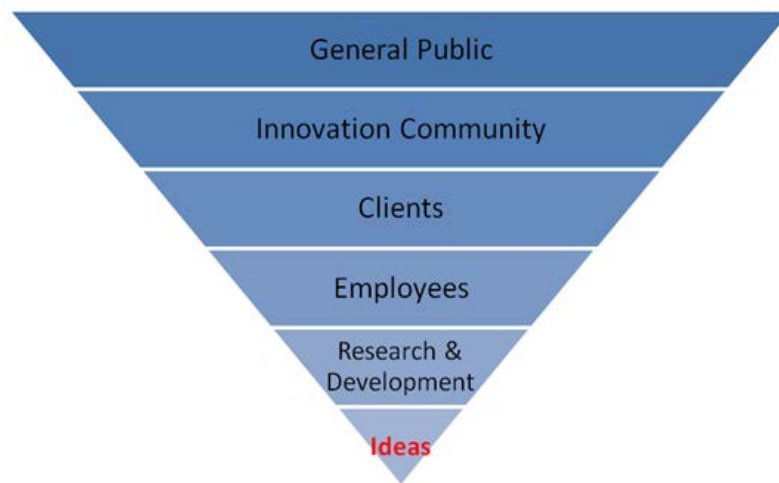


Figure 1: Modern innovation model (Global enterprises, 2007)

Clients / Customers involvement:

The third pillar in the innovation model is the growing trend, credit of which goes to the new digital and social platforms and practices that allows any company to listen and involve its customers to its innovation processes, transparently. There is nothing as great as being able to react live to any changes or habits in the global market. Further, with increasing diversity and the global operation of the companies, the information that is gathered up by the sales or by field workforce and the retail network that is established by them is all becoming a huge benefit for the modern organizations.

Innovation communities:

Innovation communities is the modern trend for the global enterprises, it is the idea collection platform that organizations should establish in each of its global operating units. Problem for one unit might be a solution for other operating units. It provides a competitive edge over rivals as diversity also play a very important role in these communities. The innovation community model can be pushed far beyond, for instance idea markets, which are open sharing platform where anyone can suggest ideas or solutions of his/her own to given problems.

General public / Crowd sourcing:

Crowd sourcing is the ultimate level of innovation. Everyone is welcomed to take part in the open innovation process. The next step would be the fully distributed organizations where the boundaries blend with the outside communities.

DIVERSITY AND INTER-CULTURAL MANAGEMENT

Diversity or diverse workforce refers to the co-existence of people from various social and cultural backgrounds and the intercultural management is the existence and management of diversity within an enterprise. Intercultural or cross-cultural includes all groups of people at every level within a company. Diversity includes numerous cultural factors such as gender, race, age, color, ethnicity, physical ability, etc. (Kundu and Turan, 1999). Further it requires such a type of organizational culture in which each and every employee can pursue his or her career aspirations without being inhibited by any cultural factors as stated above or any other factors that are irrelevant to his or her performance (Bryan, 1999). Managing an inter-cultural enterprise mean, asking the diverse workforce to perform at its fullest potential considering an equitable and suitable work environment is prevailed where none of the groups has an advantage or a disadvantage (Torres and Bruxelles, 1992).

Innovating companies look for employees who have different culture and background because the diversity in the work environment bring out different viewpoints, ideas, talents, interests, and new dimension (Simmons, 1996). The companies failing to encourage diversity can adversely affect the customers, employees, stake holders such as shareholders, suppliers, public agencies and government regulators from the path of innovation. An enterprise leaning towards innovation looks for managers how have diverse managerial skills and strategies to manage both their employees and the customers. An ideal organization should be created where cross-cultural employees, customers and stakeholders are integrated and valued into all dimensions of the work (Govender, 1999).

The inter-cultural impact on management can be reflected by basic values, goals, attitudes, beliefs and the behavior of the people and the employees. Inter-culture workforce affects how the existing technology is transferred and how new trends are set in place. Further it changes the managerial attitudes, ideology and even relationship between the government and private sector. Moreover inter-culture affects how people think and behave (Hodgetts and Luthans, 1994). In some enterprises like an American company or the American society, the operating culture is such that the important decisions are made by the top managers or the top executives, where as in some enterprises like a Japanese company these important decisions are diffused throughout the enterprise. The cultural norm for the enterprises belonging to American societies or the western societies is such that they encourage risk taking therefore, lot of emphasis and value is put on innovation. In other societies employees identify themselves very strongly with their organizations, they believe in long term goals rather than been interested in short term goals, these enterprises push towards stability rather than risk taking. Such is the cultural background between different societies and those enterprises take into account such differences and backgrounds lean towards success, growth and innovation.

HOW TO CREATE INTER-CULTURAL TEAMS

Enterprises are looking eagerly to build and continuously grow their existing teams to be more cross-cultural in nature. But to achieve and be successful at the same time organizations need to solve the problem of unfair and inequitable treatment of diverse people both as an employer and as a customer. Managers at all levels must be culturally educated enough that they can recognize which behaviors and treatments are bound with (Fernandez, 1998):

- Bureaucratic structure within the organization
- Subjectivity and irrationality
- Inappropriate company policies and practices
- Ineffective implementation of top management
- Customer retention policies and practices
- Inefficient and ineffective managers

There are certain arguments for creating an inter-cultural workforce those are shown in the Figure 2 (Kundu 2001):

- Should be open to taking risk during critical decisions and indulging towards innovation.
- As the number of women, minorities etc. in the workforce increase, so will their influence as consumers. Hiring women, minorities, disabled, etc. will help the organizations to tap these niche markets (Mueller, 1998).
- The creation of inter-cultural workforce should be seen as a social and moral responsibility of the society and enterprises as all the segments of society have a stake in the development and prosperity of the society as a whole.
- Inter-cultural diversity enhances creativity, sharing of ideas, innovation and gives an advantage over competitors.
- Cross-cultural teams help organizations to enter the international arena and compete in the global market.
- Diverse teams make it possible to enhance flexibility and increase the response towards change.
- Company with an inter-cultural workforce can always better serve and compete in diverse and global markets.



Figure 2: Creating Inter-Cultural teams

Considering these arguments, enterprises can create constituent capitalized workforce by establishing mutual trust and respect among employees, customers and stake holders (Fernandez, 1998). Enterprises should look to reshape the existing working culture to have a broader view on the primary goals and see how things can be redefined to capture the diverse global market. Companies to innovate must create trust, respect and put high emphasis on the value for their diverse employees and should encourage them to integrate same values into all aspects of their work. To be successful enterprises should rethink and redefine missions, aims, strategies, goals, cultures, markets, management skills and practices and the products to meet the needs of the increasingly diverse and inter-cultural body of employees, clients and stakeholders (Fernandez, 1998).

CHALLENGES FACED BY INTER-CULTURAL TEAMS

Like two sides of coin, inter-cultural teams do encounter some challenges which can obstruct the progress of the organization and can cause damages to the reputation of the firm globally, that been said these challenges can be overcome by an innovating enterprise. Figure 3 shows certain problems or challenges faced by Inter-cultural teams:

- Hiring a diverse workforce can be challenging but the greater challenge is to retain the diverse workforce in the organization.
- Communication is one of the major challenges faced by the enterprises. Employees from different cultures fail to understand one another.
- Global companies have different operating units in different language areas find it difficult to communicate with the local employees as local employees speak different languages.
- Inter-cultural diversity increases ambiguity, complexity and confusion.
- Problems are created when managers and employees over generalize enterprises aims, goals, policies, strategies, practices and procedures.
- Cultural diversity creates challenges for an organization when it wants to reach on a single agreement or a conclusion.
- Diversity increases the complexity and problems in developing over all procedures and goals for an organization.



Figure 3: Challenges faced by Inter-Cultural teams

As mentioned above, one of the biggest fears for an inter-culturally strong enterprise is to retain their diverse workforce. The key or the best tool to concur the problems is to identify such challenges as soon as possible and not to wait till these fears becomes reality. A successful enterprise will identify and explore the best human resource practices and policies to help retain a diverse workforce in the organization. Such practices and policies include establishing open communication, promoting innovation, supporting cultural training, mentoring and leadership programs and linking wages to diversity goals. Ultimately, the biggest lesson learned for overcome such challenges like to create, develop, and retain diverse workforce is to find a way to make workforce to feel connected to their organization (Farren and Nelson, 1999).

INTER-CULTURAL DIVERSITY IN DIFFERENT SOCIETIES

Every society has wide range of cultures and these different cultures relates to different work attitudes, so it becomes a tremendous job for a global firm to learn about these differences which exist across different cultures. An eminent Dutch researcher Geert Hofstede in 1980's conducted a mass survey of over hundred and sixty thousand managers and employees working for a big American multinational corporation– International Business Machines (IBM) initially covering forty countries which were later expanded to cover seventy countries around the world (Hodgetts and Luthans, 1994). Hofstede surveys found very interesting and significant differences in the behavior and the attitudes of employees and managers from different countries that worked for IBM (Adler, 1997). Furthermore, he found that countries culture explained more differences in work related values and attitudes than the position within the enterprise, profession, age, or gender. Hofstede's initial research was based upon four primary cultural dimensions (Kundu2001):

- Individualism/collectivism
- Power distance.
- Uncertainty avoidance.
- Masculinity/femininity (Career success/quality of life).
- Confucian dynamism (this is the fifth dimension which was later identified by Hofstede along with others)

Table 1 shows inter-cultural diversity in different societies across the globe as researched by Hofstede along with other (Hodgetts and Luthans, 1994; Adler, 1997):

Table 1: Inter-cultural diversity in different societies across the globe

Dimensions	Primary Traits / Focus	Societies where this dimension is predominant	Societies where this dimension is not predominant
Individualism /	Individualism focuses	United States, Great	Taiwan, Columbia,

Collectivism	primarily on people taking care of themselves and their immediate family only. Collectivism is a tendency of people to belong to groups and to look after each other in exchange for loyalty.	Britain, Netherlands, Slovakia and India tend to have greater support for work ethics, individual decision making and promotions on the basis of market Value.	Singapore, Pakistan has high collectivism tend and they have less support for the protestant work ethic, less individual initiative, and promotions on the basis of seniority.
Power Distance	It measures the extent to which employees having low power accept an unequal distribution of power.	Societies with high power distance such as Philippines, Mexico, South Korea and India superiors and subordinates consider bypassing to insubordination.	Societies with low power distance such as Israel, Denmark and USA employees expect to bypass the boss frequently in order to get their work done.
Uncertainty Avoidance	It measures the extent to which employees feel threatened by ambiguity and they try to avoid situations by providing greater stability, establishing more formal rules, rejecting deviant ideas and accepting the possibility of absolute truth.	Lifetime employment is more common in high uncertainty avoidance cultures like Japan, Portugal, and Greece.	High job mobility is more common in low uncertainty avoidance cultures like Singapore, Hong Kong, Slovakia and India.
Masculinity / Femininity	Dominant values in masculine (career success) societies are success and money. The values in quality of life (femininity) societies are relationships among people, concern for others and the quality of life.	Highly masculine cultures are found in societies like India, Japan, Austria, Slovakia, USA and Italy.	Feminine cultures are found in societies like Norway, Sweden, Denmark and Finland.
Confucian Dynamism	Confucian dynamism measures employee's devotion to work ethic and their respect for tradition.	Asia's four tigers - Hong Kong, Singapore, South Korea, and Taiwan have strong work ethic and commitment to traditional Confucian values.	Work ethic is very low in the Anglo countries, Africa and in Latin America.

MANAGING INTER-CULTURAL DIVERSITY

To be successful in today's challenging world and to grow with the global market, enterprises need to have an inter-cultural team at every level and these teams should encourage and employ innovation at every step. We have discussed earlier how innovation and inter-cultural teams will help an enterprise to be a leader in the market, now we see how we can manage such inter-cultural diverse workforces or teams. To effectively manage a diverse workforce in a global or a domestic multicultural environment, we need to first recognize the differences and learn to use them to our advantage rather than either attempting to ignore the differences or simply allowing the differences to cause problems (Adler, 1997). Every employee and manager should be taught how to respect the differences at work and how to work with them to maximize their contribution to the organization and the society (Cascio, 1998).

Innovating enterprises keep updating their strategies to meet the growing demand of their customers. Strategy from an enterprise aspect to manage an inter-cultural team is defined as the extent to which managers and

employees recognize the cultural diversity and its potential advantages and disadvantages. Some of the strategies for managing cultural differences are identified below (Adler, 1997):

- Ignore cultural differences
- Minimize cultural differences
- Manage cultural differences
-

Ignore cultural differences:

Enterprises following this type strategy do not recognize inter-cultural differences or its impact on the organization. This type of strategy is very popular in parochial or narrow minded type of organizations. In such type of organizations, managers and employees believe that diversity is irrelevant and considers that their way of doing things is the only way to manage and organize. Therefore, they do not see any real progress or growth and they lack knowledge of innovation.

Minimize cultural differences:

This type of strategy is commonly adopted by ethnocentric organizations, where employees and managers do recognize inter-cultural diversity but only as a source of problems and issues. Enterprises employing this type of strategy believe that their way of doing things is the best way to organize and manage. Managers try to reduce the issues or problems by reducing diversity therefore, they do not think about the advantages of diversity.

Managing cultural differences:

The enterprises which adopt the strategy of managing cultural differences are synergistic organizations. They recognize the impacts of cultural diversity that leads to both advantages and disadvantages. Managers and employees believe that their way of doing things and their way of behaving and managing things differ from each other, and they believe neither is superior to the other for organizing and managing. Enterprises by adopting synergistic approach exercise maximum innovation and success and they minimize the potential problems by managing the impacts of cultural diversity and not by attempting to minimize the diversity itself.

INTER-CULTURAL TRAINING

One of the key aspects for managing an inter-cultural team is to train the managers or to educate them on cultural differences so that they can recognize them and use them to create advantage for their organization over the competition. Inter-cultural training stresses on training their employees about other cultures and sensitizing them to the discrimination and biased diversity that employees feel (Farren and Nelson, 1999). The aim of the training is to help employees live and work comfortably in another culture. Organizations can also offer training to diverse groups of employees and they can be trained for a basic entry level skill. Further, organizations can also provide training to managers and other employees who work with diverse employees (Luthans, 1995).

Many different training techniques can be used by the organizations to impart practical and real-life training to teach their employees how to handle situations those arise due to cultural differences. Some of these techniques are (Hodgetts and Luthans, 1994):

- Environmental familiarization – Provide information about history, geography, climate, schools, government, economy, etc.
- Orientation in culture – Understanding the value structure and culture of the host country.
- Cultural assimilator – It is a programmed learning technique that is designed to expose employees of one culture to some of the attitudes, customs, etc. of another culture.
- Field experience
- Language training
- Sensitivity training

End of the day, these trainings are very helpful for every individual in the organization as it aims to help them in understanding different cultures and also allows them to use the lessons learned in a global situation, hence benefitting their organization in every respect.

INTER-CULTURAL MANAGEMENT IN USA, INDIA AND GERMANY

Today's business environment is more global than ever, enterprises have tremendously amplified their business activities over the last decades, a trend which will continue manifold. It will be very interesting to see the multinational and inter-cultural management in different parts of the world. Global Village is a term often used in this context, due to the fact that society's preferences in buying or consuming are significantly similar throughout the globe, for instance – worldwide success of brands such as Apple, Tata, Siemens, etc. (Heerd, 2013). In the following table 2 the author provides an overview and best practices of innovation in relation with inter-cultural management in American, Indian and German enterprises (Kwintessential, 2014).

Table 2: Overview and best practices of innovation in relation to inter-cultural management in American, Indian and German enterprises (Kwintessential, 2014)

	USA	India	Germany
Role Played by the Enterprises	Enterprises recognize and value the specialized knowledge that employees at all levels bring. Organization's consults their employees on the decisions that affect them.	Enterprises may take a somewhat paternalistic attitude to their employees. Organizations may express concerns for employees that goes beyond the workplace and that might include their family, health, and other practical life issues.	Enterprises provide explicit directions and ensure that their employees have the proper materials and they understand the procedure. Employees respect their organization by following their directions.
Change Philosophy	Enterprises need to have a high tolerance for risk and be ready to accept the change. The mindset should be such that the change, which might be difficult but usually, brings improvements and enhancements to the organization.	Enterprises seem to have a medium tolerance for risk and change. It is almost mandatory for innovations to have a track record or history providing the benefits if they are to be accepted and implemented. Failure causes a long term loss of confidence to the organization.	Enterprises inter-cultural adaptability and readiness for change is low. The underlying mindset is such that the change may threaten the organization.
Time and Priority Culture	Americans truly follow a time controlled culture. Global and inter-cultural expansion is all about adherence to schedule. The underlying mindset is that missing a deadline is a sign of poor management and inefficiency.	Indians are quite careful about time and priority in business situations where deadlines are regarded seriously. However, Indians rely upon building relationships so there might be instances where there is more flexibility to adhere to strict standards and schedules.	Germans also follow a time controlled culture and it is important to adhere to schedules. They respect schedules and deadlines and missing them is a sign of inefficiency.
Decision Making	Organizations encourage and expect their employees to take responsibility.	Top management makes decisions and accepts responsibility for work performed by their	Employees do not expect their top management to seek for their agreement on the decision making. They

	They have freedom to speak directly to the top management.	employees. The culture is very group oriented and relationship based.	are comfortable complying with organization's decision.
Workforce – Boss or Team Player?	Workforce collaborates better as a team. Members are encouraged to contribute to any discussion and generate new ideas. All members are treated with equal respect and are valued for their actual and potential contributions.	Workforce is a mixture of both bossily figure and team player but it is important to remember that honor and reputation play an important role. The risk taking is amplified and inter-cultural sensitivity becomes necessary when working in a team setting.	Workforce is all about working in teams and collaborating across all hierarchies. The communication is somewhat direct and blunt. Roles are clearly defined within the team and members take greater responsibility for their specific task.
Communication and Negotiation Style	The communication style is informal, cordial and straightforward. Sometime, one can feel a strong pitch their communication style but it is meant to inspire confidence and trust in the organization. American negotiators are consistent with their logical reasoning, directness and comfort with self-promotion. Their main focus is on the short term and the big picture which is securing the best deal in a timely manner.	For successful communication it becomes very important to understand the personal relationships and the culture. The business models are based on respect and trust, therefore it takes time to develop a comfortable working relationship and one will need patience and perseverance to sustain. Negotiations and decisions are done by the person with the most authority and success may be celebrated over a meal.	The communication style is direct and everyone is quite comfortable saying no directly when necessary, or will let the other party know when they cannot meet their expectations. The German counterparts will be quite bold in pointing out any deficiencies they may find in the business plan. Enterprises make sure to print material in both English and German to avoid any inter-cultural miscommunication.

To ensure successful inter-cultural management in the USA, the foremost criterion for an enterprise is to treat all people with an equal amount of respect. Further, there is a sense that all employees play a very important role in the organization and all are valued for their input. Therefore, top management will consult their managers and employees to gather information and often will have them share the information in the decision making process.

In order to achieve successful inter-cultural management in India, the enterprises need to be aware of the strict protocols, cultures and rituals that exist in the region. It is important to remember that each employee or a manager plays a very distinct role within the organization, and maintaining that role helps to keep order within the enterprise. The official caste system may be illegal in India but a strong hierarchical structure based upon role and the job position, still exists in businesses.

For successful inter-cultural management in Germany, enterprises must be prepared for the strict rules, regulations, guidelines, and principles covering each and every aspect of establishing and conducting business in Germany. The setup is extremely formal and organizations believe in time is money.

STUDY OF INNOVATION AND INTER-CULTURAL MANAGEMENT STYLE IN DIFFERENT COUNTRIES, RESULTS AND CONCLUSIONS

A study was conducted by the authors of the paper with the help of a multinational company (name withheld) which has many operating units around the world. The main aim of the study was to find out what kind of innovation and inter-cultural management style is being followed by different operating units of the same company and then compare the results to the best practices described in the section above. For the study an open ended questionnaire was prepared based upon the overview and best practices proposed by the authors (table 2) in the above section. Then the questionnaire was send to employees of three operating units – USA, India, and Germany, the data were collected from 20 such employees from each operating unit. The employees worked in different departments - engineering, finance, project management, sourcing and manufacturing. The questions were asked on the basis of their willingness to participate in this study.

Data analyses was done using qualitative content analysis which is defined as an methodologically controlled analysis of texts within their context of communication and it follows content-analytic rules and step-by-step models, without rash quantification (Mayring, 2000). We aimed to identify common quantifiable and recognizable themes and patterns in the employees open responses which gave a reasonable ground to compare the results with the proposed practices (Tipandjan et al., 2012). Further, the crux of using comparable patterns and themes was primarily to look for the overall view and the expression of an idea and not to go into the tiniest details of the analysis (Minichiello et al., 1990).

The responses from the employees were matched to the proposed table 2 from the section above. The figure 4 shows the number of agreeable responses of the employees when compared to the overview and best practices as described in table 2.

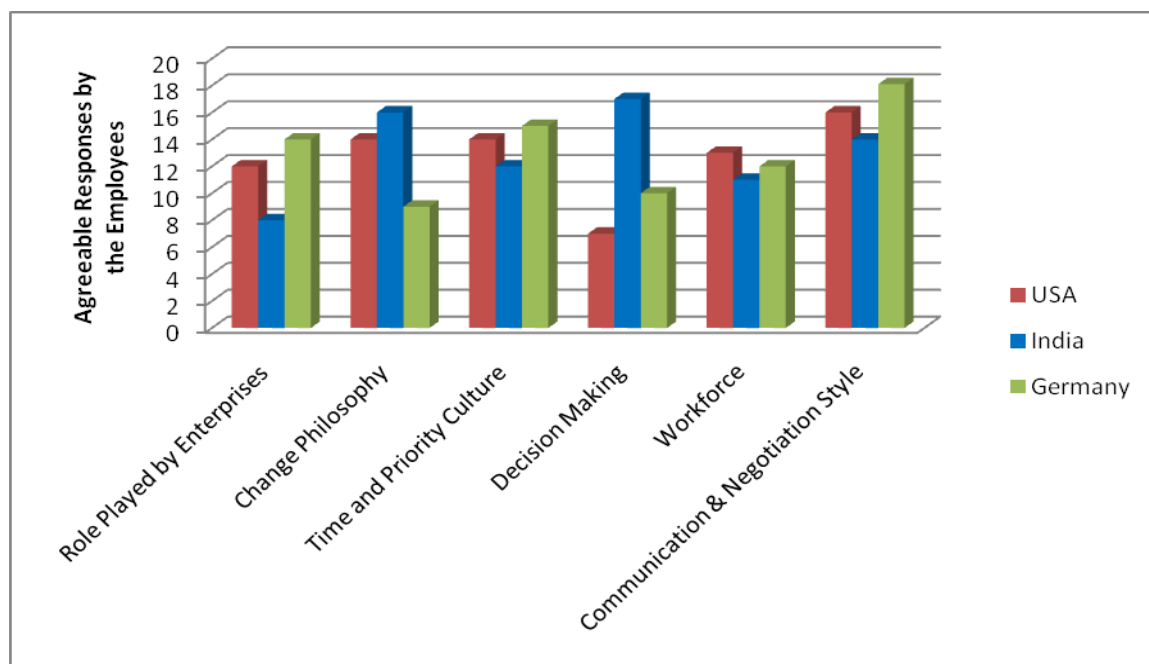


Figure 4: Study of innovation and inter-cultural management style in different countries

From the above graph, for the category “role played by the enterprises” all operating units except India agrees to the inter-cultural management styles as described in the previous section. Similarly for the “change philosophy” and “time and priority culture” majority of the employees accepts the facts related to the proposed best practices in innovation related to inter-cultural management. However, we see a contrasting difference in the results from the employees of USA and India for the sub-section “decision making”, where less than 50 percent of employees working in operating unit in USA think that the organization encourage and expect their employees to take responsibility. Whereas approximately 80 percent of India employees, agrees to that fact that top management makes decisions and accepts responsibility for work performed by their employees. Positive responses were recorded for the “workforce” and “communication and negotiation style” from all the employees

from their respective countries with Germany leading the way with agreeing to the proposed best practices with a close to 90 percent for the category “communication and negotiation style”.

The study shows a very interesting aspect of inter-cultural characteristics between different countries. An enterprise having different operating units all over the world needs to pursue different approaches for each country. For instance, time and priority culture in USA and Germany is followed very strictly whereas in India time culture is flexible. So, the organizations needs to keep in mind different cultural values for each country that said it will be beneficial and as the same time economical for the organization to help adapt the same culture throughout all its operating unit like in the case above, Indian managers and employees can learn from their colleagues from USA and Germany the importance of strictly following the time and priority style. This can be done by understanding the differences and by creating inter-cultural teams and by managing the inter-cultural diversity. The enterprises should look to overcome their fear of different cultural activities and understand the importance of this study which plays a major role to help business owners to recognize the outcome and significance of different cultures. All enterprises along with all employees need to realize different countries have different needs or they belong to diverse market, therefore they would have to focus on each market individually and their strategies should be altered time to time to the requirements of the country. Now for example, the way of communication or the workforce style in India works differently than in USA or in Germany, so the organizations will have to think differently each time however, thriving businesses do their homework well and they know the hiring a workforce is more economical in India than in USA or in Germany. Therefore, studying and understanding the inter-cultural differences becomes the fine line between successful and unsuccessful companies.

This study is just a starting point for the organizations to look into their existing business models and see what style is being followed but their own companies in other parts of the world. This data should be analyzed and could be used as an input to the company’s strategy planning for each market. Moving forward, the authors of this paper can expand the questionnaire to include more particulars of different styles and best practices followed in each country. Encourage participation from every employee of the company and thrive to expand the market research to each and every country. The operating units should be developed to do on-site survey with their employees, customers, vendors, etc. and the data should be exchanged between other operating units and the top management. Thus enabling the organization to understand the existing challenges and train the managers and employees by using different training techniques to manage the inter-cultural diversity.

The organizations to be productive need to transform their thinking processes very smartly and see what kind of culture is popular in a respective country. Ideally an enterprise would like to maintain same philosophy throughout however they need to be open to understand cultural boundaries. Globally businesses are thriving for creativity and innovation and victorious organizations know culture plays a very important part in innovation meaning, different market see’s innovation differently. Therefore, inter-cultural management plays a vital role for the success of an industrial enterprise.

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DETERMINANTS OF FINANCIAL OPENNESS

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ABSTRACT

The implications of varying degrees of financial openness for international financial markets and the role of capital controls have been in the focus of the literature again since the global financial crisis. This study analyzes the determinants of financial openness for a large panel data set of 96 countries covering the period from 1980 to 2010, concentrating on the impact of financial and political development. Financial development is captured by the private credit to GDP ratio whereas political development level is proxied by the so-called "democracy" variable constructed using the indices of political rights and civil liberties produced by the Freedom House. Fixed effects estimation results show that higher levels of neither financial nor political development lead to higher degrees of financial openness for the whole sample, while financial development accompanied by political development turns out to have a positively significant effect on the degree of financial openness for the subsample of emerging countries. This promoting influence of the interaction between financial and political development for financial openness might be explained by the fact that emerging economies lack the adequate financial and political infrastructure required to be able to benefit from increasing financial openness; therefore, improvements in the financial and political development stimulate financial opening and lead to higher degrees of financial openness.

Keywords: Financial openness, financial development, political development

INTRODUCTION

Financial openness has been in the focus of discussions regarding its implications for economic growth, macroeconomic volatility and fluctuations as well as how and to what extent it should be implemented since the global financial crisis (See, among others, Prasad and Rajan (2008), Rodrik and Subramanian (2009). Cakici (2012) examines the business cycle implications of increasing financial openness for small open economies in the case of technology shocks.). The literature has so far analyzed the determinants and the consequences of financial openness in a rather restricted way such that the relationship between financial openness and financial development remains ambiguous (For an example from the limited literature on the link between financial openness and financial development, see Aizenman (2004)). This study aims to fill that gap through providing an extensive empirical analysis that investigates the determinants of financial openness, focusing on financial development as well as political development.

Regarding the relationship between financial openness and financial development, there has not been a consensus in the literature. In other words, the implications of financial development level for the degree of financial openness remain ambiguous. One could argue that higher levels of financial development might lead to increasing financial openness through providing the economy at hand with the solid financial infrastructure necessary to be able to cope with the consequences of higher financial integration with the rest of the world such as increasing vulnerability against external shocks. Under that scenario, one would expect that countries with deeper financial systems have more open financial accounts. On the other hand, it might be suggested that increasing the degree of financial openness provides economies with benefits, and therefore would be preferred, only until a certain threshold level of financial development has been reached; that is, during the process of acquiring a certain level of financial depth. According to that later argument, it would be expected that higher levels of financial development beyond that threshold level do not have any significant impact on the degree of financial openness. This paper aims to answer which one of these arguments holds true.

There has been a vast literature on financial openness over the last two decades, with a lack of consensus on its effects and implications due to contradicting studies with controversial results (See Edison et al. (2004) for a survey on the effects of financial openness and stock market liberalization on economic growth. Obstfeld (2009) discusses the policy framework in which financial globalization is most likely to be beneficial for developing countries.). While a group of studies including Quinn and Toyoda (2008) and Townsend and Ueda (2010) argues that increasing financial openness promotes growth and economic activity or improves welfare, another group of researchers such as Edwards (2004) discusses that it might be harmful especially for emerging economies with not adequately developed financial markets. There is also another strand of literature that stands between those two contradicting lines of research in the sense that they provide the circumstances, under alternative scenarios or for different types of countries, under which higher degrees of financial openness would be beneficial (See, among others, Alper and Cakici (2009), which provides an empirical investigation of the implications of financial openness for economic growth.).

Eichengreen (2001) claims that a critical review of this extensive literature is the obvious first step toward understanding the varying and sometimes even contradicting implications of financial openness for different countries. With this motivation, the author provides a survey of this literature focusing on cross-country studies of the causes and effects of financial liberalization. Eichengreen states that, on the one hand, capital account liberalization encourages growth and efficiency through international portfolio diversification and cross-border portfolio investment. On the other hand, it can be counterproductive if it takes place before other policy-related frictions have been removed and domestic financial markets have developed enough to be able to channel the foreign finance in productive directions. The author suggests analyses of this topic from a microeconomic perspective using firm-level data, arguing that the microeconomic level might offer more definitive evidence of the effects of capital account policies.

Kose et al. (2009) attempts to provide a unified conceptual framework to organize this vast literature, arguing that the indirect effects of financial globalization on financial sector development, institutions, governance, and macroeconomic stability are more important than any direct impact through capital accumulation or portfolio diversification. Mishkin (2007) analyzes financial openness from a broader perspective such that he examines the implications of financial globalization, especially for developing countries. Mishkin focuses on the relationship between financial development and economic growth and investigates whether financial globalization contributes to higher growth through encouraging financial development. The author shows when and how financial globalization would be beneficial or detrimental and concludes that it is the way in which it is implemented that matters for developing countries. Henry (2007) attributes the fact that most studies in the literature find either no effect or contradicting effects of financial liberalization on real variables to their failure to test the empirical validity of the theory of liberalization. He argues that the textbook theory of liberalization stands up to the data quite well, in contrast to what has been suggested in the earlier surveys of the literature.

Edwards(2004) concentrates on a particular aspect of international financial flows; namely, sudden stops of capital inflows. Edwards points out the policy issues regarding sudden stops such as the causes and the consequences of them, and uses a panel data set to analyze the mechanics behind them. He aims to uncover the link between sudden stops and current account reversals, the impact of degree of financial openness on the occurrence of such events, and the potential influence of financial openness on the effect of current account reversals on economic performance. Edwards shows that current account reversals have a negative effect on real growth and that the degree of financial openness is not related to the intensity of this effect. He also shows that decreasing financial openness does not reduce the probability of experiencing a reversal. Lane and Milesi-Ferretti (2008) ask a more fundamental question about international financial integration and attempt to answer why degrees of financial integration differ across countries. Moreover, they examine the policy implications and risks of the sharp trend toward increasing cross-border financial trade. The authors show that the differing degrees of financial integration across countries arise from differences in the deepening of domestic financial systems, overall economic development and trade integration.

The main objective of this study is to explore the determinants of financial openness concentrating on financial and political development and using a large panel data set consisting of 96 countries for the time period from 1980 to 2010 (The potential role played by financial development in explaining growth has also been analyzed extensively in the literature. See, among others, Levine (1997), Guiso et al. (2004) and Loayza and

Ranciere (2006)). The degree of financial openness is captured through the use of an index consisting of information on controls and restrictions imposed on international capital flows. In that sense, increasing financial openness implies decreasing financial controls or frictions (For a comprehensive analysis of financial frictions in a DSGE framework for small open economies, see, among others, Cakici (2011)). Panel estimation results show that higher levels of neither financial nor political development lead to higher degrees of financial openness for the whole sample, while financial development accompanied by political development turns out to have a positively significant effect on the degree of financial openness for the subsample of emerging countries. This promoting influence of the interaction between financial and political development for financial openness might be explained by the fact that emerging economies lack the adequate financial and political infrastructure required to be able to benefit from increasing financial openness; therefore, there is still room for improvements in both dimensions that can play crucial roles in determining the degree of financial openness. Through providing an extensive empirical analysis employing a large panel data set consisting of 96 countries covering the period from 1980 to 2010 in order to investigate the influence of both financial and political development on the degree of financial openness, this study constitutes a novel contribution to the literature.

DATA AND METHODOLOGY

Data

The interactions between the variables of interest; namely, financial openness, financial development level and political development level are investigated using a large panel data set consisting of 96 countries covering the period 1980-2010. There are 19 emerging and 27 OECD countries in the sample (The list of countries can be provided by the author upon request.).

The main variable of interest, financial openness, CAP, is captured by the KAOPEN index constructed by Chinn and Ito (2006). KAOPEN is based on the binary dummy variables that codify the tabulation of controls and restrictions imposed on international financial transactions reported in the *Annual Report on Exchange Arrangements and Exchange Restrictions* (henceforth, AREAER) published by the IMF. In order to be able to reflect the effect of *financial openness*, rather than *controls*, the values of the binary variables are reversed by the authors such that the dummy variables are equal to one in the absence of financial restrictions.

The financial development level, FIN, is proxied by the private credit to GDP ratio, following the literature (see, among others, Djankov et al. (2007)). Both the private credit and the GDP data are taken from IMF's *International Financial Statistics* (henceforth, IFS) (More precisely, the private credit data is the line 22D, "Claims on Private Sector", listed under "Economic Concept View-Monetary Data NOT Based on the Standardized Report Forms (SRFs)". The only exception is for Euro-Area countries, for which "Claims on Other Resident Sectors" is used.). Financial development level has been investigated extensively in the literature in terms of its implications for several different financial and macroeconomic variables. The potential role played by financial development in explaining growth was analyzed by Levine (1997), Guiso et al. (2004) and Loayza and Ranciere (2006), among others. Political economy of financial development was studied by Girma and Shortland (2008), Braun and Raddatz (2008) and Hodler (2011). In this study here, the focus is on the influence of financial development on the degree of financial openness. Doing that, political development level is also taken into account, which constitutes one of the novelties of this paper.

The political development level, the so-called "democracy level" in this paper, DEM, is constructed using the indices for political rights and civil liberties produced by the Freedom House. "Freedom in the World" index published by the Freedom House is a commonly used measure for democracy level in the literature, which is a comparative assessment of global political rights and civil liberties. Survey ratings and narrative reports on 195 countries and 14 related and disputed territories have been published annually since 1972 (For studies using this index, see, among others, Isham et al. (1997), Alper and Cakici (2009)). The index is constructed such that each country is assigned two numerical ratings, from 1 to 7, for political rights and civil liberties, with **1** representing the **most free** and **7** the **least free**. Since higher values of the variable represent lower levels of political development, the modified version of the variable is employed in the estimations, where higher values of the variable denote higher political development levels. This way, positive and significant coefficient values for the democracy variable will indicate that higher levels of political development lead to higher levels of

financial openness. Democracy level has alternatively been measured with different indices in the literature, provided by Bollen (1980), Hadenius (1992) and Alvarez et al. (1996), among others.

FDI, one of the explanatory variables in the model that is considered to have an influence on the degree of financial openness, is calculated using the foreign direct investment data from *World Development Indicators* (henceforth, WDI) provided by World Bank and the GDP data from IFS (FDI is the net foreign direct investment data under Balance of Payments, denominated in US dollars. GDP data is listed under National Accounts, line 99B, denominated in national currency.). The ratio of net foreign direct investment to GDP is used as one of the independent variables so that it is proportional to the other variables that are also defined as ratios. One could argue that higher degrees of financial openness could stimulate FDI flows further; that is, the direction of causality could be such that amount of FDI flows is determined partly by the degree of financial openness as well as many other financial and macroeconomic components. Under that scenario, one would need to consider the potential endogeneity issue and carry out the analyses accordingly. However, financial openness is captured here as a variable pertaining to regulatory controls over capital and current account transactions, the existence of multiple exchange rates, and the requirements of surrendering export proceeds. That is, higher levels of financial openness are only possible through realizations of less financial controls. Therefore, the direction of causality is very clear in this paper. Another control variable, which has often been considered in the literature as one of the best explanatory variables for financial openness, is current account openness, CUR, measured as the trade to GDP ratio. More precisely, the ratio of the sum of exports and imports to GDP is used as a proxy for current account openness, as often suggested in the literature (See, among others, Edwards (2004) and Hau (2002).).

Estimation

In order to uncover the determinants of financial openness concentrating on the role of financial and political development, three different models are constructed for estimation. Model 1 consists of the main variables of interest; namely, financial development level and the democracy level. Model 2 is an extension of Model 1 such that it also includes one of the control variables, current account openness. Finally, Model 3 is the modified version of Model 2 with the other control variable, FDI to GDP ratio, additionally (In order to control for the potential hypothesis that FDI might also be affected by financial and political development level, an instrument for FDI that consists of the residuals from the regression of FDI on financial and political development levels was also employed in the estimations. The results did not change significantly; therefore, are not reported here.). For the subsample analysis of emerging countries, Model 4 is introduced such that the interaction term, FINxDEM, which is a variable capturing the interaction between financial and political development levels, is included in the estimations. The estimation results are presented in the tables below.

Table 1 presents the panel estimation results for the whole sample. Coefficients are estimated using fixed effects estimation with degrees of freedom corrected White cross-section standard errors (Cross section and period fixed effects method is used in the panel estimations, which allows to capture the cross sectional differences across countries as well as the implications of different time periods within the 1980-2010 interval for the link between the variables of interest. The Wu-Hausman test statistics also favor the fixed effects estimation over the random effects estimation.). P-values are given in parentheses below the estimated coefficients. The estimation results show that neither financial nor political development levels play significant roles in determining the degree of financial openness while trade openness and FDI/GDP ratio turn out to have positively significant effects on financial openness. The lack of any significant influence of financial and political development levels on the degree of financial openness might be due to the fact that improvements in financial and political development lead to increasing financial openness only when the adequate financial and political infrastructure needed to be able to benefit from increasing levels of financial openness have not been reached yet; that is, there is still room for improvements in both dimensions that can play crucial roles in determining the degree of financial openness. This hypothesis is tested here using a subsample analysis consisting of emerging economies, which are characterized by relatively low levels of financial and political development in comparison to advanced economies.

In Table 2, the estimation results for a subgroup of countries consisting of emerging economies are presented. It can be seen that political development level has positively significant impact on financial openness in Model 1, Model 2 and Model 3, whereas financial development level remains insignificant in determining the

degree of financial openness. Trade openness and FDI/GDP ratio also lose their significance in explaining the financial openness level. However, when the interaction between financial and political development levels is included as an additional explanatory variable in the analysis, financial development level becomes positively significant in explaining financial openness. The interaction variable also turns out to have a positively significant effect. This interesting result might be interpreted as the joint effect of the two main variables of interest in this study; namely, financial development level and political development level, acting like a catalyzer for increasing financial openness. In other words, higher levels of financial development turn out to promote further financial opening in emerging economies only when it is accompanied by higher levels of political development, which shows the importance of the simultaneous improvements in financial and political development, and the complementarity of financial and political stability (The fact that financial development alone does not necessarily have any significant effect on financial and macroeconomic fundamentals, that it often needs to be supported or accompanied by other factors, was also pointed out by Darrat et al. (2006), who claimed that improving the structure and the operation of the financial sector in emerging markets has promoting impact on real growth only when such improvement continues steadily for a long period of time.).

**Table 1. Panel Regressions, 1980 – 2010,
Financial Openness as the Dependent Variable**

Variable	Model 1	Model 2	Model 3
Financial Development Level (FIN)	9.74E-08 (0.16)	9.80E-08 (0.15)	9.83E-08 (0.15)
Democracy Level (DEM)	-0.02 (0.33)	-0.02 (0.32)	-0.02 (0.36)
Trade Openness (CUR)		7.70E-06 (0.49)	3.33E-05* (0.06)
FDI / GDP Ratio (FDI)			2.49E-10* (0.05)
Intercept	5.18** (0.00)	5.18** (0.00)	5.18** (0.00)
Adjusted R ²	0.71	0.71	0.71

Notes: P-values are given in parentheses below the estimated coefficients. Coefficients are estimated using fixed effects estimation with degrees of freedom corrected White cross-section robust standard errors.

* Significantly different from zero at the P = 0.10 significance level.

** Significantly different from zero at the P = 0.05 significance level.

**Table 2. Panel Regressions, 1980 – 2010, Emerging Economies,
Financial Openness as the Dependent Variable**

Variable	Model 1	Model 2	Model 3	Model 4
Financial Development Level (FIN)	-0.12 (0.32)	-0.10 (0.47)	-0.14 (0.33)	1.42** (0.01)
Democracy Level (DEM)	0.21** (0.0001)	0.21** (0.0001)	0.21** (0.0001)	0.03 (0.74)

Trade Openness (CUR)	7.45E-06 (0.67)	3.60E-05 (0.15)	3.40E-05 (0.31)
FDI / GDP Ratio (FDI)		2.90E-10 (0.10)	2.35E-10 (0.36)
Interaction Term (FIN x DEM)			0.39** (0.0017)
Intercept	5.42** (0.00)	5.42** (0.00)	4.75** (0.00)
Adjusted R ²	0.51	0.51	0.52

Notes: P-values are given in parentheses below the estimated coefficients. Coefficients are estimated using fixed effects estimation with degrees of freedom corrected White cross-section robust standard errors.

* Significantly different from zero at the P = 0.10 significance level.

** Significantly different from zero at the P = 0.05 significance level.

CONCLUSION

This study aims to explore the determinants of financial openness concentrating on financial and political development and using a large panel data set consisting of 96 countries for the time period from 1980 to 2010. More precisely, the relationship between financial openness and financial development, which has not been explored much in the literature and therefore remains ambiguous, is analyzed with a special focus on political development. Trade openness and FDI/GDP ratio are also employed in the estimations as control variables due to the consensus in the literature regarding their significant linkages with financial openness. In addition, an interaction variable capturing the simultaneous improvements in financial and political development is included in the analyses and turns out to play an important role in explaining the degree of financial openness. Through providing an extensive empirical analysis employing a large panel data set consisting of 96 countries covering the period from 1980 to 2010 in order to investigate the influence of both financial and political development on the degree of financial openness, this study constitutes a novel contribution to the literature.

Panel estimation results for the whole sample show that neither financial nor political development levels play significant roles in determining the degree of financial openness while trade openness and FDI/GDP ratio turn out to have positively significant effects on financial openness. The lack of any significant influence of financial and political development levels on the degree of financial openness might be explained by the argument that improvements in financial and political development lead to increasing financial openness only in those countries, where the adequate financial and political infrastructure needed to be able to benefit from increasing levels of financial openness have not been reached yet; that is, there is still room for improvements in both dimensions that can play crucial roles in determining the degree of financial openness.

Estimation results for the subsample of emerging economies show that political development level has positively significant impact on financial openness in all models used for the whole sample analysis, whereas financial development level remains insignificant in determining the degree of financial openness. Trade openness and FDI/GDP ratio also lose their significance in explaining the financial openness level. However, when the interaction between financial and political development levels is included as an additional explanatory variable in the analysis, both financial development level and the interaction variable turn out to be positively significant in explaining financial openness. This interesting result might be interpreted as the joint effect of the two main variables of interest in this study; namely, financial development level and political development level, acting like a catalyzer for increasing financial openness.

This study can be extended further to analyze the possible implications of other financial and macroeconomic variables for the degree of financial openness. Here, the idea was to concentrate on the yet ambiguous link between financial openness and financial development, which has not been examined much in the literature, with a special focus on political development. This is the reason why the interaction between financial and political development was also captured as an additional explanatory variable in the analyses. With this motivation and focus, the set of control variables was restricted to trade openness and FDI/GDP ratio, acknowledging the potential influence of several other factors, which were left out due to being beyond the scope of this study. It would also be interesting to investigate how financial openness and its interactions with the variables in this study would be influenced by variables such as stock market liberalization, banking sector development, exchange rate regime or social development level; which is left for further research agenda.

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INVESTOR STATE DISPUTE SETTLEMENT (ISDS) IN THE TRANSATLANTIC TRADE AND INVESTMENT PARTNERSHIP BETWEEN US AND EU (TTIP): PROBLEMS AND BENEFITS FROM A PORTUGUESE PERSPECTIVE

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ABSTRACT

The transatlantic trade and investment partnership between US and EU (TTIP) has been drawing some attention in international context, since its negotiations began in July 2013. One of the most hotly debated issues of these agreements is the inclusion of the investor-to-state dispute settlement (ISDS), an instrument that grants a foreign investor the right to use dispute settlement proceedings against a government when the protected rights of a trade treaty are breached, usually using arbitration courts. In this paper we intend to study the interests at stake: TTIP economic issues and juridical problems raised by ISDS clauses, especially in a country like Portugal. A comparative juridical analysis between ISDS and Portuguese national courts is made.

Keywords: ISDS, TTIP, Investment, Arbitration

INTRODUCTION

The transatlantic trade and investment partnership between the United States and the European Union is a long haul discussed issue with steps forward and backward in the last decades. First of all, we must be aware of what TTIP means and for that we must bring globalization into the equation. In fact, TTIP is a combined result of globalization and economic liberalism¹. The economically – and mostly empirically proven² – belief that wider and large markets help economic agents' efficiency – and consequently generates economic growth – is in the basis of the European Single Market, NAFTA and others examples of International Free Trade Areas.

In few words, free trade areas result from different economies that agree on eliminating barriers and submitting their economic agents to free competition with benefits to consumers with wider offer of products at lower prices. Beside the economic goals, especially in the case of the European single market, we can also find political objectives that stimulate the integration not only at the economic level but also on political field.

EU has already signed similar agreements like the FTA EU-MX, with Mexico and Chile in 1997, and, more recently, CETA with Canada and DCFTA with Ukraine, both in 2014.

One of the most hotly debated issues of these agreements is the inclusion of the investor-to-state dispute settlement (ISDS), an instrument that grants a foreign investor the right to use dispute settlement proceedings against a government when the protected rights of a trade treaty are breached, usually using arbitration courts³.

The discussion about ISDS clauses lays on the ability to achieve the right balance between protecting investors and safeguarding the State's right to regulate in the public interest⁴. In fact, most ISDS cases concern governments' administrative measures, such as the invalidation of licences or permits, land zoning or breaches of contract⁵. Therefore, the opponents of the ISDS clauses question the impact of ISDS on the governments' ability to implement legal reforms and policy programs related to public interests, as environmental protection, labour rights or public health.

The issues on ISDS clauses include the lack of transparency on arbitration proceedings. Regarding conflicts that concern public interests of a state there is not much sympathy for the traditional confidentiality characteristic of arbitration. Furthermore, the arbitrators are elected by the parties, a fact that might jeopardise the independence and impartiality of the chosen referees.

ECONOMIC ISSUES ON TTIP

Under an international investor perspective, since Portugal is a small and very exposed to international commerce country, it is not a very appealing for investors, if they only assert the value for its small internal market. But, having small local costs and no barriers to commerce with EU and the USA might transform it in an interesting country to investors.

In theory, the investment partnership that is predicted in the TTIP, means investment liberalization and protection of intellectual property rights within the area of free trade: any "internal" investor within the partnership may invest in any country within the scope of this as if it were a national of the state where he invests. Thus, an US investor may invest in Spain, according to the Spanish legislation, under the same conditions that any Spanish investor would have. But the TTIP goes further. It doesn't truly want equal: it wants foreign investor protection with more guarantees than the ones are given to national firms. When a national investor needs to solve a question with his Government he can go to a national court of law. These foreign investors want exclusive and mandatory arbitration.

Also, due to the world's 250 million Portuguese speakers, Portugal can be an interesting country for US and EU companies that have a focus on Africa, Asian and even South America, to invest in. In fact, using the same language is a real business facilitator: "Language is an intangible asset that benefits from network economies. The greater the number of users, the greater the benefit that each draws its share." (Reto, 2012). Trading with transnational companies that use the same language can reduce transaction and organization costs and improving efficiency (Foreman-Peck, J. S., 2007). Same language brings same social behaviors and traditions with more previsibility in labor market, buying and selling, relationship with local authorities: key to investment.

World Portuguese speakers account for about 3.7% of the world's population and hold approximately 4% of the total wealth. The eight Portuguese-speaking countries occupy an area of 10.8 million square kilometers, about 7.25% of the land surface of the Earth. Portuguese is the fourth most spoken in the world, as their mother tongue, and registers one of the highest growth rates in the Internet, social networks, in the production of articles and scientific journals and learning as a second language (Reto, 2012).

In the Portuguese language context, the Lusophone Space, the language value might be amplified by the fact that it allows the access to diversified and complementary economies: Portugal and Brazil with larger secondary and tertiary sectors and African and Asian countries more dedicated to exploitation of raw materials.

Thus, this means that investing within TTIP may grant special prerogatives in accessing not only markets like Brazil and developing countries like Angola, Mozambique, Guinea-Bissau, São Tomé e Príncipe, Cape Vert and East-Timor, but also economic free spaces where these countries operate. In fact, West African Economic and Monetary Union (UEMOA), Economic Community of West African States (ECOWAS), South African Development Community (SADC), African, Caribbean, and Pacific Group of States (ACP), Association of Southwest Asian Nations (ASEAN) and South Common Market (MERCOSUL).

For emerging countries accessing international trade agreements means faster growing economies. In fact, countries with more open investment and trade policies experience a greater growth, in a GDP analysis, than the ones having restricted policies (Edwards, S., 1992). Furthermore, the most diversified the economies entering the free trade area are the best they tend to perform (if everyone within the free area was buying/ selling the same products productivity gains wouldn't be as easily achieved (Bajo, C. S.,1999).

ISDS: PROS AND CONS

As the number of investment treaties has been growing from less than 400 in 1989 to 2573 documented bilateral investment treaties in 2006 (Brower and Schill, 2009) the discussion in favor and against has also grown. This growth transformed investment arbitration in the fastest growing area of International Law.

Against ISDS researchers, in short, present two fundamental ideas: arbitration courts are, *de per si*, opaque, lack legitimacy, suffer of procedural inconsistency because investor rights are vague and indeterminate and, on the other hand, arbitrators' freedom is placed into question.

Pro ISDS point out difficulties presented by national courts saying that they are incapable of answering in reasonable time to investors demands; national courts are biased in favor of the state; in fact, specialized and fast decisions on investment issues are a source of company's efficiency and will be an advantage not only to the investor but also to the state - by increasing investor confidence. Also, arbitration courts answer the contract demands and have public outcomes. Investment Arbitration legitimacy comes from the contract itself and International Law. Arbitrators are chosen by the parties and, considering their own interest on being appointed again in future cases, they should present a good, independent work.

Investment Arbitration advantages are also pointed out: it is said that ISDS give investors the fundamental right to initiate a dispute; otherwise investment treaties would not have any juridical effect like coactivity. Unlike judges on national courts, arbitrators are specialists in Investment matters. None of these problems shall be disregarded but we must analyze them in our context: TTIP and small countries like Portugal with small bargaining capacity. Concerning the problem of national courts or investment arbitration bias a proper discussion should take into account empirical data, which has not been studied yet. In fact, Portugal has no tradition on investor state agreements combined with mandatory arbitration.

Regarding the Portuguese state courts, in the Central Administrative Tribunal South - the second instance in the administrative jurisdiction - in 2012, 120 cases had have a final decision, with 89% rejections of cases against the State. Only in 13 actions the State was ordered to pay damages, totaling 208,000 euros. In the Central Administrative Tribunal North area, the success rate is slightly lower, with the State being ordered to pay 1.6 million euros in 16 of the 51 final decisions (Procuradoria-Geral da República, 2014). Which conclusions can be drawn from these numbers? First of all, these numbers come from administrative courts which mean that the reasons that underpin the actions brought against the state are diverse, but the claims are always based on acts or omissions of public administration. Examples are a license cancellation, an irregular expropriation, public Hospital malpractice or error of a magistrate in a court case. Such cases may not have anything to do with investment state disputes. Therefore, it is very hard to draw conclusions from that data though one might be evident: it is difficult to obtain a sentence against the State. But thus this result from a court bias or from a well-functioning Public Administration?

At this point with no more data, it does not seem that arbitration or court bias can be used as an argument against or for. There is one thing we should not disregard: national investors go to national courts in order to pursue their rights. If there is a court bias, shouldn't they be tackling it too? Why isn't this being discussed? It doesn't seem reasonable to say that foreign investors can only initiate a claim if there is an arbitration court. There are national courts to fill claims just like with any other subject. In theory, in what concerns the independency of arbitrators, *mutatis mutandis*, the same problem can be seen with judges on national courts but one thing we shall not disregard: all countries of TTIP are democracies and governors might have diffuse interests at stake when the State is signing contracts or pointing out arbitrators. Corruption is a criminal matter but it shall be prevented instead of only receiving downstream treatment. This means that it is risky to give the power to a politician to remove courts from their original power of reviewing the legality of state actions (or any

other entity). It is also risky to give the power to a politician to indicate the referees that will represent the State in the dispute.

Pro ISDS claim that arbitrators are more specialized than judges. There is no evidence of that but, even assuming that this is correct, couldn't we agree that judges will certainly do a better job when filling concepts like good will, abnormal change of circumstances, public interest and miserliness, since they have a whole systematic juridical system to resort on? Still on the language issue, investment contracts are often accused of using vague language that has to be filled by arbitrators in vacuum which leaves space to arbitrariness. A solution might be found if contract language becomes more assertive and specific in order to replace the vagueness and indeterminacy of the investor's rights that leads to unpredictability (Brower & Schill, 2009). That way, this handicap can be mitigated but the same thing applies to the critique of lack of competence of national judges: creation of a specialized national court for investor-state disputes would bring specialization of judges and no longer the capacity of these judges would be questioned. So, at first sight, this argumentations doesn't seem to lead to any conclusion in favor or against ISDS.

Investment arbitration doesn't seem a natural tool to deal with Human Rights Conflicts but they are one of the main reasons for States to breach their obligations towards foreign investors. Regarding the legitimacy of investment arbitration, nowadays and in a few cases only, claims regarding Human Rights and Investment are starting to being accepted, even when formulated by third parties: *amicus curiae* (Fonseca, 2015). It is not very secure how this tribunal (Investment Arbitration) will solve Human Rights problems based on the fact that both norms - International Investment and Human Rights - come from International Law. This Tribunal has no knowledge of Human Rights: referees have to fully understand the specific contract signed between the investor and the State. Leaving such important matters to the referees free will – which may or may not be educated in Human Rights – doesn't seem farsighted. In cases of Arbitration like *Aguas de Aconquija vs Argentina*⁶, Human Rights (right to water) claims were only accepted in the sense that they affected the investment. Here lies a crucial criticism point of the model: it is partial and only able to assess the investment itself.

One thing is unresolved: investment arbitration legitimacy. Internal Law gives national courts the legitimacy that they need, but these investment arbitration courts must get their legitimacy from the parties will and from international law. Historically, especially in north-south relations, States have been trying to narrow the discussion of these contracts on international headquarters so they do not lose their *Ius Imperium*. International firms, on the other side, have been trying to internationalize and to transnationalize the contracts they firm with States (Feur & Cassan, 1991). Internationalizing the contract means to submit it to International Public Law or International Contract Law and to Transnationalize means to submit the contract to Lex Mercatoria or Lex Contractus. *Lex mercatoria* is known for regulating international commerce and it is based on uses and customs on international commerce, which means, in this sense, that it lacks the penalty power that a State has so it can enforce its will. It is based on the power relationships existing between the contractors.

According with Pedroso (2002):

“When the State is able to impose its sovereignty, tend to be governed by the national state law. However, in the reverse situation, the private company tends to impose the dispossession of the contract and its internationalization or transnationalization so that it is governed by public international law or contract or by the *lex mercatoria*”.

This author references what he calls “State Contracts” as contracts firm between a State and a foreign private entity. States show interest in keeping the contract under national jurisdiction, based on the decision of the International Court of Justice in Haia, 1929, “*the whole contract, is not a contract between States as subjects of international law, has its foundation in national law.*” Private companies advocate the use of *lex mercatoria*, international public and private law, with the argument that this is the parties will (expressed or implied). This author argues that this is linked with the existing power relations between States and private operators and expressly refers to the north-south power relations. When contracts concern oil it is easier to get them under national State law - given the privileged position enjoyed by the State in this contract. On another hand, new technology companies that settle in another country tend to get more easily de-territorialized.

In general, the types of contracts focused in our study, predict arbitration as the only way the parties choose to solve any dispute. Arbitration, as we saw above, can vary when applied to these contracts depending on the type of law regulating them: national law, international law and transnational law. It can be a national

arbitration – non-judicial – within national law system where it gets legitimacy; international arbitration depends on parties will and it is established on the international juridical system; transnational arbitration was created by international economic agents outside those legal systems.

Arbitration can be *ad hoc* – if the arbitral court is especially created for that one dispute - or institutionalized – if the arbitral court is permanent and receives more than one conflict (Cebola, 2012). For the lack of a better view, the TTIP predicts an *ad hoc* transnational arbitration system; it is not within national legal system; it is not within international legal system and it is only based on parties' agreement on submitting the conflict to a private settlement. This implies an ideology that all parties' are equal in this contract, which is not exactly the way everyone sees the problem. There is no equality in this contract. The contract is signed by a State that represents their citizens and is guided by the public interest and a private entity guided by profit which is a legitimate scope for a firm in a capitalist system. Being so, it is hard to conceive that a State gives up their courts to a private, transnational arbitration justice. This would seem reasonable under one circumstance: if arbitration was within country's national legal system or if it was a result of approved and ratified – under national constitutional laws – international treaties. In fact, this is a changing world and hybrid entities like European Union are created under a complex, but hard to define, picture. However, nobody risks questioning its legitimacy because it has good, solid national foundations with citizen's support. It is not likely that TTIP will have this kind of popular scrutiny.

ISDS AND PORTUGUESE INTERNAL LAW

In theory, it could be possible for Portugal to abdicate on courts of law about conflicts with private entities. According with the article 1 of the Portuguese Volunteer Arbitration Law - Law 63/2011 of 12 December – “*Any dispute involving economic interests may be referred by the parties to arbitration, by means of an arbitration agreement, provided that it is not exclusively submitted by a special law to the State courts or to compulsory arbitration*”. The paragraph 5 of article 1 of Portuguese Volunteer Arbitration Law points out conditions to State to sign for Arbitration: “*The State and other legal entities governed by public law may enter into arbitration agreements insofar as they are authorised to do so by law, or if such agreements concern private law disputes*”. This means that, regarding to disputes with the Portuguese State, it should be specially prescribed by law the case to be object of arbitration or it has to be a dispute of private law. No other situation is prescribed in order to ensure the use of arbitration.

In the first case, there are several situations where is commonly accepted by Law the use of arbitration. It is the case of public expropriation (Law 166/99, September 4th). It is predicted that, in what concerns to the quantum of the compensation, the value is decided by a mandatory arbitration chamber. It is interesting this example of public interest expropriation because it is exactly one of the underscored reasons pointed out to the use of ISDS. In Portugal, the arbitration at this level it is already legally predicted, which grants legitimacy of the procedure. In the administrative litigation, the voluntary arbitration is predicted when the private and the administrative entity agree on submitting the problem to an arbitration court⁷. Even in tax disputes, the use of voluntary arbitration is predicted on Decree-Law No 10/2011, January 20th. One last example that can be given is the Decree-Law No. 259/2009, September 25th that regulates the required and voluntary arbitration and compulsory arbitration for the minimum services to be provided on strike period.

In the second case – in which public entities submit to arbitration private law disputes – we can think of countless examples like when a public hospital buys surgical material or contracts with a cleaning enterprise. These are contracts where the State acts in an equal standard with the private entities; it does not act provided with *Ius Imperium* (Cebola, 2013).

The article 20, paragraph 1 of the Portuguese Constitution Article 20 enshrines the right of access to justice. However it is not tenable to say that it establishes an absolute right of access to the courts without any exception or that the access to the courts can not be excluded by agreement of the parties. What the establishment of voluntary arbitration tribunals is, or may represent, is the voluntary waiver of the right of access to a State court. The fact that the Constitution include the arbitration courts in the categories of courts does not ensure the constitutionality of mandatory arbitration courts in all cases. In our opinion it is only admissible the imposition of arbitration composition when it is possible to appeal the decision to state courts. This means that

the Constitution considers access to a traditional court – even only in an appeal basis - the last given guarantee in justice theme. Besides being what results from ordinary law, if this is what is stated for citizens, no other possible solution seems to apply to the State or to foreign investors. The State is guided by public interest. There is no reasonable reason so that the referred regime does not apply to State litigation. *A fortiori*, the same argumentation can be used to investor state arbitration: the cases where State can enter an arbitration dispute are determined by laws and that sort of litigation is not permitted.

One more constitutional principle should be given voice: equality principle (article 13 of the Constitution). This principle prescribes that no discriminatory behavior is accepted. If we accept ISDS for foreign investors, the national investors would continue under national court's jurisdiction. This means a difference treatment without any justifying ground bases. Assuming the argumentation that arbitration is more fair to investors, national ones would be in disadvantage restricted to national courts bias.

It is stated that “*The European Commission, the EU Member States and the European Parliament all believe that Investor to State Dispute Settlement (ISDS) is an important tool for protecting EU investors abroad*” (European Commission, 2015). Trust is a fundamental value to investors. Investors know that arbitration will be blind to apply the *pacta sunt servanda* principle. Courts are organs that observe the contract within the juridical system. Different principles - as the radical change of circumstances, good faith bargaining... etc. – may apply. Trust is a very important value but it is only one part. State must be a private investment promoting agent – since it will promote public interests like growth and development – but it shall not disconsider legality principles and the rule of law.

CONCLUSION

The world is not static, it is in constant change and so are the relations between the economic agents. We have no doubt that the increase of investment and imports/ exports brings benefits for all parties involved. Public policy must respond adequately to encourage growth: provide economic agents a state-neutral position and assure legal safety for their businesses. Globalisation has made obsolete theories providing a “State- centred” conception of the world. European Union juridical nature is paradigmatic in what this topic concerns.

The birth of the international investment arbitration is clear and logical: cases like savage expropriations of US investments in Cuba, Iran and Zimbabwe can scare any *bona fide* investor⁸. In a globalised and capitalist world, there may be needs / wills for legit investment in any part of the globe where regimes may sign investment contracts with investors and, later, disrespect investors legitimate expectations. In this case, if the judicial system does not function ensuring the investor the equality of arms with the State, the investor might lose it all.

In our special case of TTIP that practical argument has no connection to the reality of facts since European Union countries and the United States are all democracies governed by rule of law. We shall not be dogmatic but Law is a systematic science and the juridical system must not be disregarded.

From all the arguments exposed previously, there is only one – decisive – argument that cannot be overcome: the ISDSC lack of legitimacy. Public policy must choose between pursuing with this ISDS model or to stick to a national court dispute settlement model. In the first case, legitimacy should be granted from a public discussion, parliamentary approval and ratification – under national constitutional laws – of an international treaty, since the European Union does not seem to have the legitimacy to compel member-states in this specific issue. Constitutional changes might be needed to assure correspondence among Constitution of the Portuguese Republic, ordinary Law and ISDS. In the second, and simpler, case – maintain State courts settling investor-state disputes – there are amendments that can be done to ensure investors interests. Creating specialized jurisdiction on investment (National Investment Courts) or creating legal basis so that Investor State disputes can be settled in an internal arbitration can result as solutions for the pointed problems: it should be created a juridical framework so it can function within. It must not exist a prejudice against arbitration but it should comply with the principles and legal systems in which it operates. Otherwise, it will only be a market dictatorship.

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ENDNOTES

¹ An impact assessment of the TTIP was made by Ecorys on the Final Inception Report: Trade Sustainability Impact Assessment (Trade SIA) in support of negotiations of a comprehensive trade and investment agreement between the European Union and the United States of America [Trade/2013/E1/E03], available in http://trade.ec.europa.eu/doclib/docs/2014/may/tradoc_152512.pdf.

² Krugman, Paul (1980). According with this author, scale economies product differentiation and the pattern of trade. This is what economists call economies of scale: till a point, cost per unit of output generally decrease with increasing scale as fixed costs are spread out over more units of output and efficiency rises.

³ Pohl, J., K. M. & A. Nohen (2012). Dispute Settlement Provisions in International Investment Agreements: A Large Sample Survey. In: *OECD Working Papers on International Investment*, 2012/02. OECD Publishing. Available in <http://dx.doi.org/10.1787/5k8xb71nf628-en>.

⁴ European Commission (2015). *Online public consultation on investment protection and investor-to-state dispute settlement (ISDS) in the Transatlantic Trade and Investment Partnership Agreement (TTIP)*. Brussels.

⁵ See, *inter alia*, Miller S. & Hicks, G. N. (2015). *Investor-State Dispute Settlement: A Reality Check*. CSIS Reports, and also UNCTAD (2015). Recent trends in IIAs and ISDS, In: *IIA Issues Note* N°1, February 2015, available in http://unctad.org/en/PublicationsLibrary/webdiaepcb2015d1_en.pdf.

⁶ ICSID case arb/97/3.

⁷ Articles 180 to 187 of the Procedure Code of Administrative Court, approved by Law 15/2002 of 22 February, with the latest amendments introduced by Law 63/2011 of 12 December.

⁸ Eric N. Baknoff, Expropriations of U.S. investments in Cuba, Mexico and Chile (Praeger 1975) referred by Brower and Schill 2009.

ATYPICAL COLLECTIVE BARGAINING IN THE PORTUGUESE LABOR SYSTEM

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ABSTRACT

In traditional bargaining, companies are linked to inflexible (and sometimes antique) deals with trade unions and, therefore, the adaptation to new economic realities and market changes becomes a herculean task. In the current scenario of global crisis, companies were forced to find new and more flexible ways to bargain labor policies without involving these centenary associations. In many cases, negotiating with work councils was the alternative that employers needed, and the agreements obtained proved to be beneficial for both parties. The constitutional and legal admissibility of this new kind of negotiation is largely discussed in Portugal. In this paper we will suggest some solutions for these legal problems. We also intend to assess the effects of this atypical bargaining in employees' motivation and in companies' productivity.

Keywords: Atypical bargaining, collective bargaining, collective agreements, unionism

INTRODUCTION

In labor, collective agreements were created as a mechanism to shape the content of the individual employment contracts and to avoid abuses by the employer. Due to the work dependence of the individual employees, collective bargaining, carried out by unions, emerged in the mid-nineteenth century as a way to equalize the employment relationship with the expectation that these would lead to strong negotiating power (Palma Ramalho, 2009).

But this collective bargaining context is changing, and this change is largely related with a visible crisis in traditional forms of unionism. The need for flexible labor policies in order to adapt business sector to the current economic challenges, are the main reasons of this problem¹.

To overcome the inflexibility of collective bargaining with unions, companies look for alternative ways to negotiate work conditions. Some companies started to bargain some specific subjects directly with their employees, such as holidays' periods, working hours and wages, instead of bargaining it with unions. Thus, workers representative or work councils emerged in some companies to negotiate those issues directly with the administration. Since unions are excluded or participate indirectly in these negotiations, this is called atypical bargaining.

Atypical bargaining brings benefits not only to employers that can apply flexible labor policies and avoid strikes, but also to employees, that can defend their rights properly and keep their jobs flexible, adapting their aspirations to the companies' needs.

In Portugal, one of the most well-known cases of this kind of negotiation is Autoeuropa, an automobile factory that since its beginning has tried to involve employees in important decisions on labor problems. Vital work agreements were achieved between the company and the employees, setting aside the collective bargaining agreements applicable in this sector. These agreements are being scrupulously fulfilled by both parts, which demonstrates the success of this method.

As previously explained, due to the current economic context that demands flexible labor policies, it is important to realize if the Autoeuropa's example should be followed by other companies. In this paper we analyze the advantages and disadvantages of atypical bargaining and the environment where it takes place, to assess whether its application is easily adapted to other companies and realities. On the other hand, how can we supervise these agreements, in order to guarantee that workers' legal rights are not violated? Should competent entities that would control these work agreements be created? These are some questions that we intend to analyze in the present paper.

Moreover, in juridical systems as the Portuguese, atypical bargaining is not enshrined in the Constitution. In fact, in Portugal the constitutional competent associations to bargain with companies are the trade unions. Beyond that, the Portuguese labor law does not contemplate this negotiation in its text. This constitutional and legal problems are widely discussed among jurists and the opinions are extremely different. Our opinion will be patent in this paper and we will try to outline a way to solve this problem.

ATYPICAL BARGAINING

With the increasing of crisis in traditional unionism, due to rigidity in traditional collective bargaining, companies started to negotiate with its employees in a different way. Economy is in continuous changing, so it is crucial for companies to adopt flexible policies in the labor field, as a way to adjust businesses to this changing. The agreements celebrated with unions were too antique and inflexible to face the current economic and social crisis. According to Edward J. Amadeo and Susan Horton, "labor market flexibility is being seen as increasingly important, given the rapid changes in world economy as the intensification of global competition" (Amadeo, E. J., & Horton, S., 1997, p.1).

In order to face this problems, employers started to sign collective agreements with work councils, which had an essential role in the success of these negotiation due to their proximity with the administration of the companies. According to OECD, unions try to advert employees about this new relations between employees and employers (OECD, 1986, p.52).

The most relevant difference between traditional and atypical bargaining is the parties. In the traditional form, employees are represented by trade unions, in the latter they are generally represented by the companies' work councils. However, we defend that if trade unions delegate on work councils the ability to celebrate collective agreements, negotiation should not be considered atypical. This possibility is legally provided in Portuguese law. According to Maria do Rosário Palma Ramalho, in the Portuguese juridical system, there is atypical collective bargaining only when the regulation of work conditions of a set of employees is achieved through an agreement celebrated by other entities than trade unions (Palma Ramalho, 2009, p.56).

In labor field, atypical bargaining could be used to solve both conflictual and non-conflictual situations. The agreement of conditions between employer and strike committee to cease a strike and the regular participation of work councils in collective dismissal or in procedures to company transmission are examples of effective and potential conflicting situations. On the other hand, an example of non-conflictual negotiation in this context is *accords d'intéressement*, a legal concept enshrined in the French juridical system, in which the employers undertake to pay to the employees an extra reward according to the company's results.

Autoeuropa: a worldwide case study

In Portugal, the best known case of atypical bargaining is Autoeuropa, an automobile industry, placed in Palmela, near Lisbon. According to António Almeida *et al* (2010), this company was presented as a business project with strong economic (commercial balance), technological (technological index) and social impacts (employment). In this period, some problems in juridical system were identified and Autoeuropa tried to correct some of these aspects in its policies. It was in the labor field that this innovations were more relevant.

The company has celebrated a collective agreement with a union, so the big question was how they would conciliate this agreement with the atypical negotiation with work council. They wouldn't. The company

never had the intention of fulfilling completely the agreement because if they did, the flexible labor policy wanted would become impossible.

In the opinion of António Damasceno Correia (2000), the strategy adopted by Autoeuropa provided the company with a great flexibility to update salaries. Furthermore, negotiation with the work council decreased the risk of strike since this entity lost the legitimacy to call it. Employees opted for dialogue and cooperation principles, which lead to these agreements being celebrated since 1994.

In 21 years 10 agreements² have been signed, and Maria do Rosário Palma Ramalho (2009, p.62-67) identified some relevant aspects about them:

- All agreements were signed by the administration and work council;
- Most agreements had a dead line;
- The agreements related with employment contract stipulate aspects like salary, working period, performance evaluation, holidays period, employment contract kinds, vocational training, health assistance service, work accidents and social benefits;
- The agreements only became effective after employees approbation.

These relations, which permits to employees to participate in the company administration, were innovative in the Portuguese context. In the process, there was a strong commitment of the parties to dialogue and cooperate, so that the achieved agreements were beneficial for both parties (Almeida, Cordeiro, & Fernandes, 2010). This example should be followed by other companies in Portugal, and it would bring less problems between employers and employees. Recently in Portugal there were many problems with unions due to their inflexibility in bargain, not only with employer but also with government. This problems generated many strikes which blocked some essential services of the country, such as transports, education, and health services.

CONSTITUTIONAL AND LEGAL PROBLEMS

As previously mentioned, the constitutionality of atypical collective bargaining is widely discussed among Portuguese jurists. The Portuguese Constitution, in the article 56º, states that the exercise of collective bargaining is a right that it is up to trade unions.

In the opinion of some authors, this text does not open possibilities for negotiation by work councils. Maria do Rosário Palma Ramalho (2009, p.79) defends that, if the goal of constitutional legislator was to empower work councils to bargain with companies, the article 54º, which stipulates the competencies of this entity, would expressly include that option. On the other hand, Baptista (2004, p.209), defends that this limitation is a constitutional mistake. According to the same author, the constitutional text does not attribute to unions the collective bargaining monopoly (p.212). In line with this, Jorge Miranda and Rui Medeiros (2005, p.568) defend that, considering the work council's role in employees defense and the increasing matching of competencies with unions, other collective bargaining forms could emerge.

In our opinion, there is no constitutional problem with this atypical form of bargaining. The Portuguese Constitution does not prohibit the participation of non-syndical associations in collective negotiation with companies or other employers representatives, which does not mean that this participation is legal. According to Portuguese Labor Law, collective labor agreements are signed between representatives of trade union and representatives of employers association or company, and work councils are excluded. It is possible to say that atypical collective bargaining is not unconstitutional but is illegal.

In this context, Spanish juridical system is a little bit different from the Portuguese. Spanish Labor Law attribute to work councils the capacity to celebrate company agreements, which are collective agreements that link just a company and its employees (Lopez, 2001). It wouldn't make sense that work councils were able to celebrate agreements which were applicable outside the company from where they were elected. However, in the agreements celebrated with more than a company or with an employers association, the legal representatives of employees are still unions.

As we are going to analyze, collective bargaining involving work councils or other non-syndical associations is very advantageous not only for companies but also for employees. So we think that, *de iure constituendo*, Labor Law should be adapted in way to legalize these agreements. From our point of view, to import the Spanish solution would be a good option but the transition should be carefully analyzed in order to protect employees from potential abuses committed by employers and to avoid the acceptance of abusive clauses.

Supervision of the agreements

Collective bargaining appeared first in 19th century to protect employees, which are in theory economically weaker, from abusive behaviors committed by employers and to balance their position in negotiation of labor conditions. In this period, unions were created to represent workers in negotiation procedures. Decade after decade unions became independent and autonomous associations provided by law which the principal objective was to negotiate better conditions for their associates and struggle for their rights. According to Peter J. Turnbull (1991, p.139), “through the union the workers can express discontent about their terms and conditions of employment, reveal their “true” preferences to the employer without fear of retaliation, and effectively “police” or monitor the employment contract”. Are work councils as independent and autonomous as unions are?

The bigger proximity of work councils to employer could create some problems related to the acceptance of abusive clauses by workers. During negotiation between Autoeuropa and its work council, were accepted by employees some illegal clauses, for example, the reduction of salary to a lower value than the minimum established by law to avoid collective dismissal. In current economic context, and when unemployment rate is extremely high, employees are afraid of losing their jobs, what makes them accept anything to avoid it. We recognize that sometimes this extreme labor flexibility could help companies to surpass its severe monetary problems, however, we cannot accept that at least the minimums required by law are not fulfilled.

To overcome this problem, we propose that all labor agreements celebrated between companies and work councils should be ratified by an independent and neutral entity, that must analyze and evaluate whether there are any abusive or illegal clause or not. A new entity for the effect should be created, or could be nominated one already existent in each juridical system. In Portugal, the Authority for Labor Conditions is an autonomous governmental service, whose main mission is to promote the improvement of labor conditions by controlling the application of labor standards and legislation, so, in our opinion, this authority is the most suitable for this ratifying assignment.

RECOMMENDATIONS

The atypical collective bargaining have influence in companies’ productivity. According to Albert N. Link (1992, p.1), “productivity growth is vital to economic well-being because it enhances standards of living and the quality of life”.

The author defends that:

“One view of unionism predicts that unions will decrease labor productivity by reducing management’s flexibility, introducing inefficient work rules, and limiting compensation based on individual production. In contrast to this view, some economists emphasize a collective voice/institutional response view. They argue that unionism (a form of collective organization) may increase the level of labor productivity. Unions are said to act as agents for workers by providing a collective bargaining voice.”

In our opinion, in most cases, unionism do not increase productivity in companies. The lack of flexibility and the necessity of unions to protect the agreements previously celebrated, without open space for dialogues, do not permit to companies to adapt to their necessities. Following Hubler, O. & Jirjahn, U. (2003, p.476), “without a council, workers will not cooperate with the introduction of new work practices because they fear employer opportunism”. By the other hand, bargaining with work councils is including employees in the administration of the company, which is considered motivational for them.

One of the biggest problems in traditional forms of bargaining, is that sometimes the negotiation between companies and syndical associations is not as transparent as it should and workers have no information about what happens in negotiations linked to them. According to OECD (1986, p.50), it is essential a constant flux of information between employees and employers about the objectives and policies of the company.

Some authors defend that unionization it's a positive factor for productivity, and we agree that it is preferable a company with unionized employees than a company with any entity to protect employees rights. But, in our opinion, a company with a work council controlling negotiations with employees would avoid many conflicts and many strikes. We do not defend the extinction of unions, because they could be important if the relations between employees and employers are not so good, or if work councils are not created, but atypical bargaining should be legalized.

Sometimes, the agreements celebrated between companies and unions do not let employers use its decision-making what affects business development. As defended by Robert Mefford (1986, p.106) "the union contract may prevent managers from moving workers from one job to another as needed, require excess crew sizes or unneeded standby crews, restrict the pace of production, and hinder technological improvements". Robert Mefford (1986, p.112) defends that:

"Unionization was found to increase the capital-labor ratio, as economic theory would predict. Higher wages that usually result from unions may cause the firm to invest in more automated equipment to make their higher-priced labor more productive".

We admit that in some cases the productivity increases with unionization, however, and according with our position above, in general the effects are negative or lower than when the work council bargains directly with employees.

In this context, we think that is important:

1. To update the current legal provision on this matter to include work councils as a possible party on collective bargaining, but only when the employer representative is a company;
2. To allocate special competencies to the Authority for Work Conditions to control the agreements celebrated between work councils and companies so that the basic rights of the employees are not violated even with their acceptance of abusive clauses;
3. Since constitutional problems are constantly raised by jurists, it would be possible to overcome these problems by including in labor law the obligation that at least one employee should be unionized. This way unions were indirectly included in the negotiation;
4. If problems persist after these modifications, the change of the Constitution should be considered. By including the competency of the work councils to assign collective agreements in the article 54º the problem might be solved;
5. Encouraging employees to implement work councils in companies that do not have them, and stimulate them to bargain directly with their employers. This option could be a good solution to increase companies' productivity and consequently improve our economy.

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² For detailed information about each agreement check Lima, M. P., Latas, A. G., & Nunes, C. (2012). Boas Práticas Laborais e Negociação Coletiva na Autoeuropa and SATA-SNPVAC. In: *Análise Social* 202, *XXLVII*, pp. 147-165.

A GUIDING FRAMEWORK FOR CONDUCTING FOCUS GROUP RESEARCH SAMPLING IN SOUTH AFRICA

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ABSTRACT

A lack of guidelines for the sampling process of focus group projects has been identified as a major quality challenge in South Africa, which may lead to the misuse of the method, thus influencing research quality. The study sought to uncover the challenges that impede the quality of focus group research sampling and develop a set of guidelines for redress by stakeholder organisations. A guiding framework was developed and its relevance and scientific viability were confirmed through an extensive quantitative study. A systematic probability sample of 600 respondents was drawn from identified clustered organisations. A CATI approach was used for data collection. The study revealed a wide range of quality problems relating to sampling for focus group research projects. However, the new guidelines on the scientific approach to sampling in focus group research will require education of practitioners and supervised enforcement in order to improve quality control.

Keywords: Focus groups, research challenges, research quality, practitioners, planning, sampling, recruitment

INTRODUCTION

The varied approaches to focus group research sampling and the lack of industry stipulated guidelines provide local researchers with open options with respect to the correct sampling approach to be followed. The implications for research quality can be dire. Maree and Wagner (2007, p. 122) and Martin (2006, pp. 2-4) confirm that focus group research quality is often compromised due to the misuse of the focus group method in South Africa, and sampling inadequacies abound. An in-depth literature review revealed that a lack of streamlined focus group research sampling has rendered quality control difficult to achieve or enforce in South Africa. Given this background, a set of logical guidelines for conducting focus group sampling was developed on the basis of a quantitative study. The quantitative study provided empirical validation to the sampling process and guidelines formulated as part of a scientific process and the guiding framework. In this regard, the study sought to determine the opinions of major industry stakeholders on the challenges impacting the quality of focus group sampling. The objective was to optimise research quality control in focus group research sampling in South Africa. Based on the findings of the empirical study, the guiding framework for conducting focus group research sampling was confirmed not only as a solution to the lack of direction on sampling, but also as scientifically relevant in the South African industry context. More importantly, the guiding framework was proved to be necessary for the purpose of improving quality control in the execution of focus group research studies, particularly in respect of sampling. Based on the findings of this study, quick adoption and vigorous enforcement of the guiding framework by industry authorities are recommended. Penalties must be imposed on quality research transgressions by research suppliers in order to improve quality standards within the local practice of focus group research sampling. For these reasons, an evaluative, follow-up study on the sampling framework is suggested.

RESEARCH PROBLEM

Evidence exists in the literature reviewed which suggests that the process of conducting focus group research in South Africa may not be deemed systematic or well-streamlined. Lack of adequate attention to the sampling procedures of focus group projects has been identified as a key challenge impacting the quality of focus group research. Instances of lack of attention to detail, or cutting of corners in the rush for profit, are evident within the South African practice of focus group research (Maree & Wagner, 2007; Martin, 2006; Green & Green, 2005). As a result, general misuse of the focus group method may have quality implications for decision-making processes of organisations across the industry spectrum and for further research. The different versions of the method for conducting focus group research sampling also render the use of focus groups open to abuse, as confirmed in the literature studied. In both instances, quality control may be the major trade-off in the execution of focus group research studies in South Africa.

To address the challenge of poor sampling in focus group practice, a guiding framework was deemed imperative for local industry practitioners.

HYPOTHESES

In line with the purpose and objectives set for the study, four null hypotheses were tested for the construct measured. Null hypotheses 1 and 3 were tested to determine the significance of associations in terms of perceptions on quality challenges across the research suppliers and research users, while null hypotheses 2 and 4 sought to determine the significance of differences of perceptions on quality challenges between the two groups.

- Ho 1:** There is no association between research suppliers and users on sampling approaches in focus group research practice.
- Ho 2:** There is no difference between the means of focus group research suppliers and users on sampling approaches in focus group research.
- Ho 3:** There is no association between research suppliers and users in relation to sampling quality in focus group research.
- Ho 4:** There is no difference between the means of research suppliers and users in relation to sampling quality in focus group research.

RESEARCH METHODOLOGY

Research Population and Sample Size

The population of interest for the study consisted of all South African organisations that supply or use marketing research information generated through the use of focus groups. A sample frame of over 250 research suppliers and 2 000 active research-user organisations, both registered and unregistered with SAMRA (Southern African Marketing Research Association), was used (SAMRA, 2010, pp. 77-99). Sample size entails the number of elements to be included in a study (Malhotra, 2007, p. 338). As such, a sample size of 600 potential respondents was considered large and adequate for achieving the stated objectives of the study, and was therefore used in this quantitative phase of the study. The use of a large sample, as emphasised by Aaker, Kumar, Day, and Leone (2010, p. 364), was also justified on the basis of the value of the information and the accuracy level desired. The sample units or respondents were selected from identified business organisations of both research suppliers and users. Names of the focus group research-user organisations were available on the SAMRA database, while some were gleaned from the websites of research supplier organisations within the South African marketing research industry, where they were posted for advertising purposes. Whereas 244 (40.7%) of the individual respondents were drawn from 189 research supplier organisations, 356 (59.3%) participated as representatives of 226 research-user organisations. A sample size was statistically determined and confirmed to be adequate based on a ratio of participants to items or variables measured, and a recommended ratio of 10:1 was achieved, as advocated by Pallant (2010, p. 183).

A standard form of respondent selection criteria was stipulated for execution as part of the research design for the study. Given the specialised nature of focus group research in South Africa, and in terms of the design of this study, only appropriately qualified respondents were considered, that is, those with the knowledge and experience of focus group research from both suppliers and users. In terms of the sample selection criteria, each of the focus group research supplier and user organisations featured in the sample frame of the study was considered a research cluster and was thus coded accordingly for sampling purposes. According to Aaker et al. (2010, p. 346), in cluster sampling the population is divided into subgroups, termed clusters, and a random sample of the clusters is selected, and all members of the subgroup are selected. Cluster sampling was preferred because it is said to be cost effective, as it improves the sampling efficiency by decreasing the cost at a faster rate than accuracy. Reminiscent of probability sampling, supported by Malhotra (2007, p. 337), the sample selection criteria entailed a systematic random selection of the clustered organisations, which involved the selection of every second cluster organisation from the sample frame, which was randomly ordered, as guided by Malhotra (2007, p. 346). With each organisation targeted constituting a cluster, all elements or respondents with knowledge and experience of focus group research who met the selection criteria were identified and then selected to determine the research sample.

Research Method and Instrument

The research method employed for the study was a questionnaire survey. The questionnaire survey was conducted using the computer assisted telephone survey (CATI) method, which facilitated the data collection process. The questionnaire survey method was preferred mainly due to its effectiveness, and the efficiency and accuracy of data collection could be increased when used in conjunction with the CATI method, which is effective in preventing interviewer errors (Aaker et al., 2010, p. 234). In this way, valuable and complete data, as well as consistency in the data collected, was realised. A questionnaire was used as the research instrument for the study and was developed on the basis of findings of the preceding qualitative study. The questionnaire was deemed appropriate as a formalised schedule for collecting information from respondents. Effective quality control in the use of the questionnaire was guaranteed as it was administered through the CATI method. In order to identify and eliminate potential problems (Malhotra, 2010, p. 354), the questionnaire was pretested on a small sample of ten respondents, five drawn from research supplier organisations and another five from research-user organisations. An ordinal 5-point Likert scale was used to measure the responses in the study. The 5-point Likert scale was preferred because of the few response options it offered and thus proved easier to administer than a broader scale. Apart from that, the rationale for using the Likert scale was to generate categorical data, which was appropriate for conducting tests for establishing frequency distributions, levels of agreement or disagreement, and significance of associations or independence between variables, among other things (Pallant, 2010, p. 121).

Data collection and method

Data collection involved fieldwork in which a team comprising the researcher and six other specialist interviewers, including their research supervisor from a reputable independent research firm specialising in data collection, were involved. The team size was deemed adequate for execution of the data collection process over the envisaged period of at least eight weeks. The questionnaire survey interviews were conducted through the use of the CATI method, which proved to be effective as it enhanced the quality of the research design and approach for the study in several ways. Essentially, the CATI approach entailed the interviewer guiding the respondents through each question, leaving no option for non-responses or refusals, especially as wide response options were given. On this basis, and as part of the approach supported by Aaker et al. (2010, p. 359), CATI eliminated the potential for a low response rate, and the planned sample size of 600 respondents was thus achieved. For these reasons, neither missing values nor incomplete responses were realised in the data collected. CATI offered increased speed, accuracy and instant recording of the data while being collected. The increased efficiencies of CATI in turn facilitated easier data organisation, processing and analysis, apart from revealing subgroup differences on the data collected, aspects that both Malhotra (2007, p. 299) and Burns and Bush (2006, p. 235) emphasise.

Data Preparation and Analysis

The statistical data collected was subjected to an initial data preparation process for quality purposes (Malhotra, 2007, p. 419). Once the data had been cleaned and was deemed free of errors, as advocated by Pallant (2010, p. 53), the descriptive statistical analysis and different tests were conducted on the data set. Statistical and interpretive analysis of the data was conducted within the framework of content data analysis. Content data analysis was conducted on the statistical data set produced, in line with the quantitative research tradition, in which content analysis is regarded as a technique that is systematic and objective. Because of its rigorous nature, content analysis was viewed for the purposes of the study as advantageous over other more subjective techniques, as postulated by Segal, Hershberger, and Osmonbekov (2009, pp. 70-82). Statistical analysis and processing of the data collected entailed the use of the Statistical Package for Social Sciences (SPSS 18.0). The SPSS program made it possible to unpack and understand various scenarios emerging from the data set, from the frequency distributions and descriptive statistics computed, to tests for association and tests for differences conducted. The SPSS procedures also helped eliminate data analysis error and bias, and for these reasons efficient analysis and interpretation of research findings were achieved (Malhotra, 2007, pp. 20, 95, 419).

EMPIRICAL STUDY

Presentation of Results and Discussion

Results from the questionnaire survey conducted are presented and interpreted in this section on a question-by-question basis. The questions reported upon are arranged according to the construct measured, namely sampling and the challenges that impact on the quality of focus group sampling. The construct answers to a specific objective of the study.

Statistics derived from the frequency distribution, Chi-square tests for differences and the independent samples t-tests are depicted, and revealed the following insights on sampling in focus group research:

- Q1.** The majority (87.6%) of the respondents agreed with the statement, while 7.3% neither agreed nor disagreed and 5% disagreed. The Chi-square test confirmed that, collectively, 87.6% concurred on this question. The main finding (S1) is that the majority (87.6%) of the respondents indicated that research users lacked knowledge of the market researched, and that this rendered development of research samples for focus group research difficult, thus posing quality challenges. A Chi-square p-value of .704 highlights the lack of significance of association between the two groups on this statement.
- Q2.** The majority (55%) of the respondents agreed with this statement, followed by 25.1% who disagreed. Another 19.8% expressed positions of neutrality. The Chi-square test revealed that whereas 52.1% of suppliers approved, 57% of users also agreed. The main finding (S2) is that most (55%) of the respondent sample selection must be the responsibility of the research suppliers to mitigate quality challenges. A Chi-square p-value of .000 (with .236 Cramer's V) highlights the significance of association between the two groups on this statement.
- Q3.** The majority (87.5%) of the respondents agreed with the statement, followed by 6% who disagreed. Another 6.5% neither agreed nor disagreed. The Chi-square test revealed that whereas 83.6% of suppliers approved, 90.2% of users also agreed on this question. The main finding (S3) is that most (87.5%) of the respondents indicated that lack of know-how was indeed a challenge that constrained the process of sampling, thereby impacting negatively on the quality of output. A Chi-square p-value of .038 (with .130 Cramer's V) highlights the significance of association between the two groups on this statement.
- Q4.** A low majority (41.7%) of the respondents were in agreement, while 31.1% disagreed. Another 27.2% adopted a neutral position. The Chi-square test revealed that whereas 39.4% of suppliers approved, 43.1% of users also agreed. The main finding (S4) is that a low majority (41.7%) of the respondents indicated that there is no consistency in sampling procedures used in focus group research. A Chi-

square p-value of .332 highlights the lack of significance of association between the two groups on this statement.

- Q5.** A low majority (47.1%) of the respondents agreed that sampling problems arise when the function is outsourced, while a fairly close 32.3% felt the opposite. A fairly high 20.5% of respondents adopted a neutral position on this question. The Chi-square test revealed that whereas 40.2% of suppliers approved, 55% of users also agreed. The main finding (S5) is that most (47.1%) of the respondents indicated that quality problems or gaps do arise, especially when the sampling function is outsourced to agents. A Chi-square p-value of .001 (with .174 Cramer's V) highlights the significance of association between the two groups on this statement. The next text-box captures the hypotheses tested for Q1 to Q5 of this section.

Hypotheses 1 to 4

The following hypotheses were tested with respect to sampling in the focus group process and contributed to major findings of the study.

Ho 1 and 3: There is no association between research suppliers and users on sampling in focus group research and the quality thereof.

Based on the Chi-square results, evidence of significance of association was presented through three statements tested, which relate to sampling, as follows: p-value .000 for statement B2.2; p-value .038 for statement B2.3 and p-value .001 for statement B2.5.

The main finding is that there is significant association between research suppliers and research users when it comes to sampling in focus group research. However, the following finding must also be taken into consideration.

Ho 2 and 4: There is no difference between the means of research suppliers and users on sampling in focus group research.

Based on Levene's p-values per statement derived from the independent samples t-test, four of which are above .05 ($p > .05$), the null hypothesis that there is no difference between the means of the two groups on sampling was not rejected.

The main finding is that the means reflecting the perceptions of research suppliers and research users on sampling in focus group research are not significantly different.

Major findings: sampling

In relation to Table 1, findings based on Ho 1 and 3 provided the guiding principle (Prologue S) for guidelines on determining the sampling approach.

Null hypotheses 1 and 3: These provided the main finding S5 on the sampling step, which indicated that there is significant association between research suppliers and research users when it comes to sampling in focus group research.

Null hypotheses 2 and 4: These indicated that the means reflecting the perceptions of research suppliers and research users on sampling in focus group research are not significantly different.

Main conclusion: Evidence from all the main findings S1 to S5 has been highlighted indicating collective agreement on major research quality issues, measured and tested, within sampling in the focus group process, which is supported by both findings on the null hypotheses.

Implication: The overall evidence on sampling provides the desired support for a framework that must be developed in order to guide focus group research sampling in South Africa.

Recommendation: Positive evidence on sampling is provided and must be followed up with an evaluative study of the sampling framework for guiding scientific focus group research, thus improving the quality of research in South Africa.

IMPLICATIONS AND RECOMMENDATIONS

In the light of the many impediments and transgressions relating to focus group research, and stemming from sampling in particular, the main implication of this study is that the confirmed importance and scientific relevance of each of the sampling frameworks may enhance quality control and enforcement of quality controls at this stage. It is therefore recommended that compulsory registration and accreditation of all research suppliers ought to be enforced by industry authorities, and penalties ought to be imposed for non-compliance. It is recommended that a further study be conducted in order to evaluate the framework on sampling, as an important scientific guide for focus group research in marketing research practice in South Africa.

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THE RAMIFICATIONS OF THE SOCIO-ECONOMIC RECONSTRUCTION OF THE 1945-1947s BRITAIN

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ABSTRACT

Britain was left bankrupt and exhausted by World War II. The economic resuscitation from the United States came with conditions, namely the opening up of the Commonwealth markets in which Britain had enjoyed the monopoly. The Pound Sterling was replaced by the United States Dollar as the chief global currency. Capitalism was restored through the Marshall Plan. The Beveridge Report heralded the rise of the Welfare State. However Socialism and Capitalism rarely walk hand in hand. The paper seeks to shed light on the ramifications of the socio economic reconstruction policies that were pursued immediately post WWII Britain.

Keywords: Marshall Plan, Beveridge Report, Lend-Lease, Hermeneutics

INTRODUCTION

Critiques of the Marshall Plan argue that the United States sought new markets to avert another Depression. In their view The Marshall Plan was an avenue for the desperately needed new markets. Viable markets meant a reconstructed Europe as it lay in ruins. Under the Marshall Plan, the Western European markets were remodelled in the image of the American domestic economy. The Marshall Plan sought to rebuild Western Europe whose economies were decimated by World War II (WWII). The Marshall Plan also sought to restore Capitalism and create new markets for the United States. The United States saw Communism as an ever-growing threat and feared that some countries of Europe would turn to The Soviet for economic support for their ailing economies and decimated infrastructure. Proponents of the Marshall Plan saw it as a major unparalleled humanitarian effort. The Marshall Plan did avert another humanitarian crisis. For Churchill held it as the 'most unsordid act in history'. For Britain, the reconstruction of its state and economy came with a heavy price. Britain lost the dominance of the Pound Sterling as a global currency. The Sterling was replaced by the United States Dollar as the Imperial System doors were opened to The United States. The Commonwealth markets, once closed to the outside world save for Britain and her colonies were opened to the United States for trading. They were no longer the preserve of Britain and her empire. Britain had now lost the lead. Indeed by the end of the Second World War, New York had already overtaken London as the most important financial centre in the world, with the added advantage of being located in a country whose economy was now the largest in the world (Michie, 2001). The United States sought to restore Capital in Western Europe. Britain on the other hand implemented socialist policies and social reforms as envisaged by the Beveridge Report of 1942. These reforms coupled with The Marshall Plan left Britain with a mixed economy as key industries were nationalised. Britain could not embark on capitalist reforms as her industry and economy were decimated by WWII. Hence Britain took a paternal role and embraced the social reforms. The Marshall Plan, on the other hand helped in the reconstruction of Britain and remoulded the British economy to that of an American one. The Marshall Plan made Europe safe for capitalism. Hence it can be argued that socialist reforms were bound to misalign with the capitalist reforms of The Marshall Plan. The literature review on the socio-economic policies which Britain embarked upon circa 1941-1945 gave pictorial settings in their social and historical contexts. The second stage involved the empirical analysis of the Truman Library online archives which had archived interviews on some of the key personnel who were involved in the Lend Lease Agreement and The Marshall Plan. Ricoeur (1987) 'the true histories of the past uncover the buried potentialities of the present. It is precisely at this level that history and fiction converge upon the fundamental historicity of human experience' (p17). Appropriation is not concerned with a recovery and taking possession of the original meaning of a text placed by the author, but on the contrary, with the

reader's production of meaning within the intersection of the text and the life-world of the reader. Ricoeur saw this as the fusion of horizons that occurs when the world of the text and the world of the reader merge into each other (ibid). Indeed 'interpretation is therefore a grounded experience where the text is open to dialectic appropriation, which consists of the ontological positioning of the reader to the world of the text; there is therefore no absolute and definitive interpretation' (p37). The Beveridge Report, the Land-Lease agreement, the 'stop gap' loan of 1945, the Marshall Plan were historical events in time which arguable had big consequences for Britain. In light of the preceding suppositions the paper sought to unearth the ramifications of the socio-economic reconstruction of the 1945-1947s Britain.

LITERATURE REVIEW

Eichengreen *et al* (1992) posit that The Marshall Plan contributed to Europe's recovery from World War II. The post World War II Europe found with itself with a crumbling financial system, political instability and markets with acute shortages. The Marshall Plan solved this marketing crisis by enabling the restoration of financial stability and stimulated investment. It also provided channels and laid host for infra-structure repair of Europe and was designed to solve the dollar shortage in Europe (ibid). Between the years 1948 to 1951 over USD13 billion was channelled in financing Europe's economic recovery. Critiques of Plan reject the notion of American altruism and point out that the exports of American dollars to Europe prevented America from sliding into Depression (Honer and Garraty, 1991). Europe therefore provided a market for American capital goods and was subsequently shaped in the image of the former. The Marshall Plan promoted European economic integration, federalism, and created a mixture of public and private organisations similar to that of the American domestic economy (ibid). Contrary to the myth that The Marshall Plan encouraged the development of free enterprise and sound economic policy, Cowen (1985) argues that its very structure encouraged state planning. The actual financial impact on the recipients of The Marshall Plan was quite small as the aid hardly exceeded 5 percent of gross national product of the recipient nations (Cowen, 1985).

The dollar gap had initially been covered by the Lend-Lease of 1941 but economist knew that the imbalances would return after the war, as Europe attempted to rebuild itself (Killick, 2008). Indeed The Marshall Plan can be linked to a period when Europe lay in ruins, the unchallenged power of the United States, the emergent rise of consumerism in Europe and to the power of the dollar (Bossut, 2008). Without the Marshall, Europe would have been forced to introduce severe austerity measures which could have triggered social unrest. The Marshall Plan created links of interdependence between European states, helped Europe reject a nationalist and authoritative mindset in favour co-ordinated policies within Europe on individual state levels. This raised the social consciousness for the unification of Europe (ibid). The Marshall Plan relied on three factors for its success, namely good fortune, conducive condition, and purposeful planning (Machado, 2008). The Marshall Plan helped Europe to move towards free-market based system (Collomb, 2008). It was largely based on American ideals of the free market enterprise system and was seen as tool to thwart communism (ibid). DeLong and Eichengreen (1991) posit that The Marshall Plan was not large enough to accelerate reconstruction of damaged infrastructure and economies. It did however play a substantial role in setting the stage for post-World War II Western Europe's rapid growth. The conditions attached to The Marshall Plan aid pushed Europe's political economy into a mixed economy with less controls and more markets. The post World War II Europe was far from a free market economy. It was a Europe raddled with Government ownership of utilities and industries in the name of nationalisation (ibid). In Britain, this led to creation and rise of the Welfare State through social insurance programs. The post-Second World War Labour government shifted its policies towards the creation of a 'Welfare State'. Clem Attlee's Labour Government saw nationalisation and state-controlled economies as their best option (Collomb, 2008). England had by 1947 exhausted its resources (Geremek, 2008). It had already been in decline since 1946. The Lend-Lease Act of March 11, 1941, was the principal vehicle for providing American military aid and supplies without compensation to Britain, China and the Soviet Union (Honer and Garraty, 1991). The Act allowed the United States to support its war interests without being overextended in battle. It allowed Roosevelt to lease, lend, or otherwise dispose of property of the United States to nations defending themselves against aggression (Doenecke, 1982).

METHODOLOGY

The research process was qualitative in nature and meaning was therefore drawn from the data. The paper did not test a hypothesis but sought an understanding of the ramifications of the post WW11 socio economic reconstruction of Britain. The time analysis was from 1945-1947. This was largely due to the fact that in this period major reforms were embarked upon and these shaped the socio-economic landscape of Britain with a lasting legacy. The time framework of analysis was not held constant as a historical analysis implies movement in history. Some major reforms or policies circa 1941-1945 were also covered as these had a direct bearing on the post 1945's Britain (namely the Beveridge Report of 1942). The Truman Library online archives were used as primary data. Of paramount importance were the archived interviews on some of the key personnel who were involved in the Lend Lease Agreement and The Marshall Plan. These archived interviews are available from The Truman Library Online. The Labour-Party UK online was also used to capture the mood of its then incoming Clement Atlee's Government of 1945. The methodical aspects of hermeneutics mapped out the changes in the socio-political and economic history. It is therefore a methodology which focuses on the historical and social context surrounding an action when interpreting a text (Collis and Hussey, 2009). The next section is the results and discussion. It starts with the rise of the Bretton Woods institutes and the new world order where institutions now played a prominent role on the global socio economic framework.

RESULTS AND DISCUSSION

As the WWII reached its zenith the world's statesmen who met at Bretton Woods in 1944 recognised the connection between national security and a new international economic order (Chace, 1998). A new world order had emerged; the rise of institutions, international institutions whose structural foundations anchored the global financial framework. The Bretton Woods agreements were signed by 44 nations. The International Monetary Fund and the World Bank, the offspring of Bretton Woods support and oversee the structure of the world's economic and financial order. Bretton Woods aimed for a post-war international monetary system. It sought to prevent '*beggar thy-neighbour*' trade based on competitive devaluation, which had bedevilled the world since the Great Depression era. The Bretton Woods system was one of fixed exchange rates and tight capital controls (Palley, 2006). The International Bank for Reconstruction and Development was set up to assist with the reconstruction of the war-torn economies, with Western Europe in mind (Bello, 1999). The IMF set a system of pegged but adjustable exchange rates (the par value system). The United States held the value of its dollar in terms of gold (one ounce of gold equalled to USD35). The United States Government exchanged gold at that rate of demand. Other countries defined their currency in terms of dollars with permitted variations of 1% (Jeresissah, 1999). This made the United States dollar the chief currency of the world and the linchpin of the system, as it had the backing of the gold, unlike those of Western Europe whose economies were decimated by the Second World War. The end of war in Europe was officially declared and broadcasted by Winston Churchill on Tuesday 8th May 1945. The world economy lay in ruins. By 1945, Britain had received approximately USD26 billion under the Lend Lease Agreement with the United States. Under the Lend Lease Agreement, a bilateral agreement had been reached with the United States in which post-war Britain would remove trade barriers, solve the exchange problems and create a free world. The Great War, the Great Depression and the Second World War had driven nations, particularly those of Europe towards autarchy. Article VII of the Lend Lease Agreement urged the major allied nations to work together for post-war economic and social recoveryⁱ. All allied nations agreed to share available resources. International assistance was really born with Lend Lease arrangement during the war. Roosevelt had promised the Congress that Lend Lease would be cut off as soon as the war was over. Truman issued a proclamation that the United States was obliged to cut off the Lend-Lease shipment as soon as the war was over. Truman withdrew the proclamation as it caused a general unease with its beneficiariesⁱⁱ. The British Lend Lease Settlement was eventually signed in December of 1945. The United States wrote off Lend Lease as an expense of the war and the reverse Lend Lease was cancelledⁱⁱⁱ. Britain was in virtual bankruptcy in 1945 and Europe lay in virtual ruins. In that autumn, Britain sent a high-level delegation to Washington to negotiate a post-war reconstruction loan. Britain and the United States were the two principal world trading nations. A pictorial description of the proceedings was given by one delegate, J Burke Knapp^{iv}: *I was concerned particularly with the British loan discussions. This was really a fascinating negotiation...On the British side we had Lord Keynes and the British Ambassador in Washington, Lord Halifax. Lord Halifax was the very epitome*

of the British aristocracy. He had come from the very highest order of the British nobility; he was an aristocrat to his fingertips. Keynes, by comparison, was a new arrival. Keynes came from middle class origins, but Keynes was also an intellectual of the highest brilliance. He spoke the English language with magnificent articulation. And these two Lords, Lord Halifax and Lord Keynes, were coming to Washington as supplicants, essentially, for aid. Well, the principals on the United States' side were Fred Vinson, Secretary of the Treasury of the United States; and Will Clayton, the Assistant Secretary of State. Now, Fred Vinson was a former semi-professional baseball player. He had come up through politics, he had been a member of Congress; a very shrewd cookie, a very tough negotiator, and a rough and tumble politician. Just as an example, when we would have meetings in his office, with Lord Halifax and Lord Keynes across the table in all their British elegance of speech and dress, Fred Vinson, chewing tobacco all the time, would occasionally clear his throat and let go into a spittoon at the side of his desk. It was an incredible contrast of traditions, cultures, and people. (p75-76)^v.

Britain eventually got the loan in December of 1945. However the loan came with a heavy price tag. Britain had to dismantle the imperial preference system which it set up during the Great Depression years. The imperial preference system encompassed the British Commonwealth and had included some important nations in the world. It was:

A closed trading society in which the nations of the Commonwealth had virtually free trade back and forth among themselves, but with high walls of tariff protection, quotas, and restrictions against external trade. The United States saw its interest in breaking down the imperial preference system and opening up these countries to American trade and American exports. So, these issues were negotiated simultaneously with the British loan, and -- to put it bluntly -- the British loan was used as a lever to pry open this restrictive system that the British had adopted and to open up new opportunities for American foreign trade (p78-79)^{vi}

Britain got USD3.25 billion out of the USD6 billion they had requested in order to restore the British industry and economy^x. Lord Keynes had declared '*we want to get back to our place in the sun*' (p25). This was not to be. The sum was inadequate, a 'stopgap'. The Second World War drove the need for post-war social reforms in Britain. The immediate post-war Labour Government (under Clement Attlee) embarked on social reforms leading to the rise of the Welfare State. Heavy industries such as coal, iron and steel were nationalised. The creation of the Welfare State was largely influenced by the Social Insurance & Allied Services (the Beveridge Report) drawn up by Sir Anthony Beveridge in 1942. It was based on Keynesian economic principle that full employment equalled full production. It was assumed that this would be the post-war position and thus would provide the basis of the Welfare State. The Report sought to address what it called the five 'Giant Evils' found in society, that is, idleness, disease, squalor, ignorance and want. As such it directed that: Social insurance fully developed may provide income security; it is an attack upon Want. But Want is one of five giants on the road of reconstruction and in some ways the easiest to attack. The others are Disease, Ignorance, Squalor and Idleness^{vii}.

Indeed in the post-war climate a new world order had emerged. The main issue of the immediate post Second World War had been that of private enterprise versus nationalisation (Giuseppi, 1966)^{viii}. The post Second World War environment encouraged social reforms and not individualism. It was a time for social reforms and not entrepreneurship nor individual profit^{ix}. The political mood had shifted as evidenced by Labour's Manifesto of 1945: Labour will plan from the ground up - giving an appropriate place to constructive enterprise and private endeavour in the national plan, but dealing decisively with those interests which would use high-sounding talk about economic freedom to cloak their determination to put themselves and their wishes above those of the whole nation...There are big industries not yet ripe for public ownership which must nevertheless be required by constructive supervision to further the nation's needs and not to prejudice national interests by restrictive anti-social monopoly or cartel agreements - caring for their own capital structures and profits at the cost of a lower standard of living for all^x.

On March 27 1946, the Mutual Aid Settlement between Britain and the United States was signed. It was the finale to the settlement of Lend Lease, reciprocal aid, surplus war property and claims^{xi}. In 1947, Europe still lay in a rumble of ruins. In 1947, Britain suffered the worst winter ever seen coupled with the drain on its reserves^{xvi}. Offices remained unheated as coal piled up at mine heads^{xii}. The severe drought of 1947 affected every country in Western Europe outside Russia and her satellite countries. Food was in critical shortage, with Europe being the hardest hit^{xiii}. Malnutrition, tuberculosis and disease were rampant. The worst winter in a

century paralysed the Continent and railroad cars froze on tracks throughout the Europe. The Marshall Plan (ERP), funded by United States sought to rebuild Europe: In considering the requirements for the rehabilitation of Europe, the physical loss of life, the visible destruction of cities, factories, mines, and railroads was correctly estimated, but it has become obvious during recent months that this visible destruction was probably less serious than the dislocation of the entire fabric of European economy...The breakdown of the business structure of Europe during the war was complete...The truth of the matter is that Europe's requirements for the next three or four years of foreign food and other essential products-principally from America - are so much greater than her present ability to pay that she must have substantial additional help or face economic, social, and political deterioration of a very grave character...The remedy lies in breaking the vicious circle and restoring the confidence of the European people in the future of their own countries and of Europe as a whole.(p1159-1160)^{xiv}.

The United States sought a stronger foundation for the Allied Countries of Europe against what it viewed as the growing threat of Communism of the then Soviet Union and its blocs^{xv}: The military results World War 2 have already put a large segment of Europe under the domination of totalitarians...Therein lies the strength of the Communistic tactic: It wins by default when misery and chaos are great enough. That is why any program for democratic rehabilitation of Western Europe must overcome not only the complex economic problems resulting from the ravages of war, but also the deliberate sabotage by the Communists who see in the continuance of misery and chaos their best chance for an ultimate victory (pb4)^{xvi}.

In October of 1947, the Soviet Union together with the national communist parties, issued a manifesto reviving the Comintern (the Cominform), their international organisation pledged to converting the world into communism. It was feared that without American aid, the nations of Western Europe would go to the Soviet Union^{xvii}. This was viewed as a threat to Europe, which demanded a counter military and economic response. The economic response was realised through the Marshall Plan, whereas the former was met through the security alliance of the United States and Europe through the treaty signed in Washington on April 4, 1949^{xviii}. The North Atlantic Treaty Organisation (NATO) arose from this treaty. In 1947 economic indicators pointed to a slight recession in the United States. It was then feared that a crippled Europe would have dire consequences for the United States economy. The then Under Secretary for Economic Affairs, William L. Clayton put bluntly the cause behind the Marshall Plan, *'Let us admit right off that our objective has as its background the needs and interests of the United States. We need markets - big markets - in which to buy and sell'* (p112)^{xix}. Britain received USD3297 million from the total USD12721 million channelled out of the United States through the Marshall Plan. This was roughly a quarter of the total aid and getting Europe to agree that Britain should receive 'such a large plug' of the total US aid was one of the major problems (p2)^{xx}. Winston Churchill upheld it as *'the most unsordid act in history'*^{xxxi}. To Bevin, the then British Foreign Secretary it was a *'lifeline to sinking men'* and he *'grabbed it with both hands'*^{xxxii}. Counterpart funds were used to liquidate the Bank of England's short-term public debt. The Marshall Plan was the architect of European Integration and the removal of barriers to trade and encouraged a regional approach to European development.

CONCLUSIONS

The United States wanted to make Europe safe for capitalism by channelling Marshall Aid through the Marshall Plan. Britain on the hand, embarked on sweeping socialist reforms under the immediate post Second World War Labour Government of Clement Atlee. It was now a world of socialist reforms, a far cry, and a world distant from that of the pre-Great War *laissez faire* markets. This led to the rise of the Welfare State. The world had changed. In the *laissez faire* world of pre-1914, the British Empire had been the most dominant in the world. The British Empire had receded and was no longer dominant. The snowball effect of the twentieth century's two world wars had left Britain physically and financially crippled. The United States took the lead. Britain was left with a mixed economy of competing ideologies of capitalism *vis-a-vis* socialism. It would take another five decades for the British markets to be liberated by the then incoming Margaret Thatcher's Conservative Government of 1979.

IMPLICATIONS FOR POLICY

Marshall Plan worked for Europe largely due to the fact that the pre-World War II The capitalist structure was still in place. Although the infrastructure has been ravaged by the war, the conditions for the restoration of the

capitalist were set. It was a herculean task, resuscitating capitalism. What made the Marshall Plan succeed was the ability of Western Europe to speak with one voice and one common goal, the resuscitation of Western Europe. Much debate has been centred on the need to have another Marshall Plan for Africa. For it work to succeed in Africa, Africa needs to speak with one unified voice, with one common goal, the economic rehabilitation of Africa. Willpower and the subrogation of individual states to a higher cause, the aid to Africa, through another Marshall Plan.

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ii. *Inter alia*, Economist, Federal Reserve Board, 1940-44; adviser on German economic affairs, U.S. Department of State and German Military Government, 1944-45; special assistant to the chairman, Federal Reserve Board, 1945-48; Vice President International Bank for Reconstruction and Development-1956

iii. From a hermeneutic perspective it was now a tale of two different worlds that sat at the table. A sharp contrast of values, traditions and cultures and these were bound to clash. At the end of the day one world had to submit as it had been ravaged and brought to its knees by the war.

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vi. Paragraph 8, 'The Socialist Health Association Promoting Health Through Socialism & Allied Services Report' (Executive Summary) Presented by Sir Beveridge to Parliament in November 1942 HMSO CMND 6404 in November 1942.

vii. As Carr (2001) remarked '*the transition has been made from laissez faire to planning, from the unconscious to the self conscious, from the belief in objective economic laws to belief that man by his own action can be master of economic destiny. Social policy has gone hand in hand with economic policy; indeed economic policy has been incorporated in social policy*' (p136).

viii. Individualism was therefore frowned upon by the State in favour of collective needs. The creation of the Welfare State, was it could be argued at extreme ends with what Hayek (1944) viewed as the evils which sought to vanquish individualism and liberty at all costs. Socialism has a double edged meaning. On the surface it merely mirrors the ideals of social justice, greater equality and security whereas in totalitarianism, socialism means the abolition of private ownership and private enterprise with a central planning body put in place (ibid).

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CREATING AND SUSTAINING CUSTOMER VALUE THROUGH SERVITIZATION

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ABSTRACT

Servitization as a re-direction from a product-oriented to a customer-oriented business focus addresses traditional product manufacturers and requires their services executives to establish a transition towards a solution-based business. This transition has received a high level of attention within the past two decades and in particular during the past ten years in current literature. However, in spite of the published manifold motivations and advantages, the actual level in the achievement of a successful servitization status is still very low. The current paper aims to shed some insights on the importance of servitization and its implications to marketing strategy.

Keywords: Servitization, solution-based business, products, customer oriented, value

INTRODUCTION

In the past, German manufacturers, and in particular the German capital goods industry, achieved a competitive edge and favourable differentiation positions through the focus on product attributes, such as quality and technology. Saturated markets, globalisation, new market entrants and advanced information technologies render these potential differentiation practices less advantageous. Product functionalities have become increasingly similar, and price and quality experience are of no particular advantage any more. As a consequence, revenues and margins have been eroded and fierce competition has grown (Baines *et al.*, 2007; Peschl, 2010).

During the past two decades, customers have increasingly expected that manufacturers would assist with solving their particular business problems rather than just providing products and goods (Reckenfelderbäumer, 2004; Kleine, Lay and Schneider, 2009; Woisetschläger, Backhaus and Michaelis, 2009). It is considered that a combination of customer demand (Mathieu, 2001; Neu and Brown, 2005; Neeely, 2008, Baines, Lightfoot, Benedettini and Kay, 2009) and the profound shift in the customers' definition of value for availability, capability and operability (Ward and Graves, 2007) leads to a move from product-oriented services to solution-based services, as Mathieu (2001, p. 458) points out:

"Clients want more value and this value is connected to the use and performance of systems; they want solutions more than just products or services; they want to take advantage of their suppliers' know-how and not just their product; they want an integrated and global offering and are reluctant to do business with several suppliers; finally, they want customised relationships."

This, paired with a global economic situation of slower growth, commoditisation and core products under profitability pressure further offers a traditional manufacturer the opportunity to respond accordingly to growing customer demands by a transition to servitization. This dynamic forced manufacturers in Germany to consider a strategic re-positioning of their past legacy tactics and seek new, innovative directions in order to compete directly with product competitors. One avenue constitutes a re-orientation from being a traditional product provider to a provider of business solutions for customers (Antioco *et al.*, 2008). This transition aims to

create value by integrating goods and services (Scheer, Griebble, Klein, 2003) and establishes new customer relationships. The product itself is assumed to be no longer the prime factor in the exchange of goods (Vargo and Lusch, 2004). This transition is characterised as a strategy moving from a goods-dominant to a service-dominant direction, providing and selling solutions (Lusch, Vargo and Wessels, 2008) - Figure 2 illustrates this move. It also implies that material products have to be complemented by immaterial services in order to form an individual and customised problem solution (Neu and Brown 2005; Sawhney 2004; Vargo and Lusch 2004), as epitomised for example, by the companies Alstom: "Total Train-Life Management", Ericsson: "Turnkey solution to design, build and operate mobile phone networks" and Thales: "Training solutions on a pay-as-you-train basis".

CONCEPTUAL FRAMEWORK AND CONTEXT

Compared with the amount of existing literature of the academic "legacy" disciplines, the literature that addresses the tactical diffusion of servitization can be regarded as nascent and as reasonably manageable. The notion "from products to services" denotes a phenomenon in which traditional product manufacturers attempt a re-orientation of their operation from a product-centric perspective towards a customer-centric perspective. The purpose of the re-orientation is to provide solutions for customers' business processes by adding value through the provision of solution-based services. The ultimate aim is, by optimally combining and integrating products and services that create value for customers operation, processes and business as solution-based services, to achieve a position as a preferred service organisation and thus improve the competitive position in the market and increase earnings.

This phenomenon was defined under the notion "servitization" by Vandermerve and Rada (1988, p. 314) as "the increased offering of fuller market packages or bundles of customer-focused combinations of goods, services, support, self-service and knowledge in order to add value to core product offerings." At the same time they also declared: "services are performed and not produced and are essentially intangible" which underlines the increased potentials for differentiation. This opens a possible train of thought leading to the definition of solution-based services. After a hesitant start, a growing number of concepts, descriptions and studies appeared in academic literature around the definition of the concept of adding value. All definitions however, aim at the same intent. Using the notion servitization as a kind of umbrella term, most concepts branch into certain directions. The most popular servitization frameworks surfaced between 1988 and 2011. They were, listed chronologically and according to their first occurrence in the literature: "bundling" (Eppen *et al.*, 1991), "product service" (Samli, Jacobs and Willis, 1992), "service package" (Fitzsimmons and Fitzsimmons, 1994), "going downstream" (Wise and Baumgartner, 1999), "product-service system" (Goedkoop *et al.*, 1999), "solution" (Shepherd and Ahmed, 2000), "full service" (Stremersch, Wuyts and Frambach, 2001), "integrated solution" (Davies, 2001), "functional sales" (Lindahl and Ölundh, 2001), "eco-efficient producer" (Zaring *et al.*, 2001), "installed base service" (Oliva and Kallenberg, 2003), "functional product" (Alonso-Rasgado *et al.*, 2004), "industrial services" (Brax, 2005), "winning in the aftermarket, (Cohen *et al.*, 2006), "integrated product and service offering" (Sundin *et al.*, 2006), "new service model" (Antonacopoulou and Konstantinou, 2008), "functional products" (Kumar and Markeset, 2007) and "service imperative" (Bitner and Brown, 2008). These contributions are spread across a wide variety of publications with the characteristics of academic, professional, industry-related works or case studies, conference proceedings, government briefings and project reports. Although there is still a lack of a common definition and terminology, the common denominator for all of them is represented by an approach for a new service-dominant logic by providing services rather than goods as a fundamental re-orientation in the exchange of goods as well as a logic that could be applied to any sector, industry or organisation (Windahl and Lakemond, 2010).

However the notion "traditional product manufacturer" spans the product-manufacturing sector from mass-manufacturing for durable consumer products or mass component provision to mechanical engineering to complex steel and plant construction. Taking this into consideration, the question of a general applicability across the total manufacturing industry remains (Grove, Fisk and John, 2003; Stauss, 2005). Furthermore the literature seems to over-emphasise the view on consumers in preference to the industrial markets (Lovelok and Gummesson, 2004), emphasising management differences between intangible services and tangible goods (Bowen and Ford, 2002; Vargo and Lusch, 2004) and thus frequently missing the opportunities stemming from an integrative aspect more suited to the capital goods industry (Windahl and Lakemond, 2010). Resulting from

this, the insight of how products and services are to be integrated in the capital goods industry, what opportunities and challenges are tied to this transition about the type and nature of provided services as well as the determining factors for resources and service mix, is barely existent (Grove, Fisk and John, 2003; Oliva and Kallenberg, 2003). The aim of this dissertation is to explore how product manufacturers in the capital goods industry might apply the concept of servitization, and identify the inherent consequences in order to be able to deliver augmented customer value.

SERVITIZATION AND CUSTOMER VALUE

Underlying this transformation is the customers' increased demand to focus more on the value generated by the product manufacturer in the context of the acquired product, rather than on the sole physical properties and functionalities of the product itself, as posited by Tan, Matzen, McAloone and Evans (2010). Accompanied by this phenomenon is the transformation of the market: Schreiner (2003) affirms that the seller markets will convert into buyer markets. A number of advantages will result from the integration of products and services for the internal and external stakeholders involved. Baines *et al.* (2007) point out that customers benefit from factors such as a distinct customisation capability of the delivered solution-based services or the degree of services flexibility to provide new functionalities in a rapidly changing customer business environment (Baureis, 2013). Thus, solution-based services providers open up new opportunities for differentiation, new markets and revenue potentials. Market analyst Forrester Research (Radjou, Ross and Shey, 2007) augments this view by forecasting a profound change in traditional services towards a business services industry (value-added services). Furthermore AMR Research (Burkett and Ruggles, 2008) also shows in its study a services gross profit of 50-70% in the manufacturing industry. This indicates that the strategic importance of the service business may outpace the product business by far (European Commission, 2001). Similarly, the Harvard Business Review (Cohen, Agraval and Agraval, 2006) suggests an evolving global service revenue potential of more than one trillion USD. Surprisingly however, in spite of all the business opportunities and competitive advantages promised by the prevailing literature during the past two decades, the reality sees only a few "hidden champions". As previously stated, the majority of the manufacturers either advances hesitantly or stalls after the initial steps (Woisetschlager, Backhaus and Michaelis, 2009).

This requires clarification about the actual achievements and penetration of the solution-based service market. In 2001, International Business Machines services revenue surpasses hardware revenue for the first time as one of the few solitary examples. According to Booz Allen Hamilton, 63% of the Fortune 100 companies already operate as solution sellers (Sharma, Lucier and Molloy, 2002). In contrast however, the study by the University of Mannheim (Klimmer, 2010) reveals a gap between aspiration and reality: services in the German capital goods industry achieve 14.8% revenue and 15.8% profit (2009). Although the majority of manufacturers claim a broad spectrum of services, the largest proportion is tagged by traditional services like repair and maintenance. Service contracts, monitoring of operational parameters (Davies, 2001) and a service such as lending and leasing equipment are available only from a minority of manufacturers. Klimmer's work (2010) indicates that 25% of manufacturers have no distinct service-marketing concept and, even if such a concept exists, it rarely contains specific service revenue and product specific service properties in order to gain competitive advantage. A mere 23% of the manufacturers state that they generate customer value. Furthermore, according to Stanley and Wojcik (2005), there are only a few solution-oriented companies who perform better in terms of revenue and gross profit growth than their traditional product-oriented rivals - 25% of them even operate at a loss. In addition, Fang, Palmatier and Steenkamp (2008) note that a firm's service success can only be achieved if its service sales have reached a critical mass of 20-30% of total sales. Baveja, Gilbert and Ledingham (2004) describe this transformation as being problematic and obviously accompanied by a number of obscured conceptual challenges, barriers and limitations, as pointed out by Zahn (2010). Evidently still quite a substantial number of manufacturers' service organisations endeavour to attain the status of business and profit contributor (Gebauer, Pütz, Fischer, Fleisch, 2009, Marks *et al.*, 2011). Numerous articles provide evidence of abort or failure. These challenges are primarily induced by the emergent complexity caused by the integration of products and services compared with the sole provision of products and matching historic services, such as repair and maintenance, as shown by Baureis (2013). As Zahn (2010) pinpoints, this can be attributed to manufacturers addressing these increased complexity challenges in an unsystematic and non-strategic manner, resulting in insufficient readiness. Oliva and Kallenberg (2003) reason that, by building on their past functional and economic success of historic product-related services, manufacturers plan and develop solution-based services

only in an ad hoc manner and thus do not meet customer requirements. Thomas and Nüttgens (2010), argue that in order to avoid the loss of service opportunities, the planning for solution-based services requires stringent and integrative development and operational processes. The nature of the causes is demonstrated in related literature to be manifold. Baureis (2013) concludes exemplarily that the internal structures of manufacturers obstruct the holistic re-orientation and new formation of development and management processes for the entire manufacturing company.

Kawohl, Evanschitzky, Woisetschläger and Ahlert (2009) point out a number of prerequisite transformation conditions. Moreover the foundation of a re-orientation constitutes a paradigm change that ought to result in the re-structuring of the past manufacturer's operation as a condition to be able to provide solution-based services. In reality, however, as Rau, Lienhard and Opitz (2002), Zahn, Foschiani, Lienhard and Meyer (2004) and Baines *et al.* (2007) reveal, manufacturers frequently do not implement elementary planning and development functions for solution-based services. Currently however, a clear strategic understanding of how to approach the solution-based service market, which the manufacturers' function is best positioned to start, how to set out to form the necessary competencies and capabilities and how to develop a strategic service infrastructure in order to proceed further after the initial start are apparently lacking in the industry. The emerging era of "Industry 4.0", the multifarious fields of the application of 3D printing in combination with the Internet of Things will result in an unprecedented demand on the operational overall equipment effectiveness and continuous operation of customers' business and production processes, as put forward by Mittelhäußer (2013). This evinces a certain urgent relevance for manufacturers in their re-orientation towards servitization. As Peschl (2010) indicates, there is a lack of understanding of what servitization involves and how the practical transformation to servitization should take place. This lack is addressed by this research.

MANAGERIAL IMPLICATIONS AND CONCLUSION

The servitization approach requests practitioner services executives to re-orientate their service delivery function towards solution-based services that assist customers in solving their business problems. In addition to the goods-dominant logic and service-dominant-logic of Vargo and Lusch (2004) Windahl and Lakemond (2010) place a solution logic as a further exchange element with certain boundaries and implied orientation focus. These approaches mainly endorse either products that are complemented by services or services that support products or stand-alone services. Oliva and Kallenberg (2003) suggest in contrast a service continuum in which manufacturers transform from a product provider to a solution provider over time. Moreover, the extant literature, adapting the work of Oliva and Kallenberg (2003), marks the value of product-oriented services as "low-end" services and the customer-oriented services as "high-end" service. This might generate a conceptive illusion that customer value may only be generated, by pushing the service delivery orientation towards solution-based services.

Servitization as a re-direction from a product-oriented to a customer-oriented business focus addresses traditional product manufacturers and requires their services executives to establish a transition towards a solution-based business. This transition has received a high level of attention within the past two decades and in particular during the past ten years in current literature. However, in spite of the published manifold motivations and advantages, the actual level in the achievement of a successful servitization status is still very low. Various avenues to servitization are described in the literature, e.g. goods-dominant logic, service-dominant-logic or solution-logic and an array of related "derivative" approaches. However, the actual approach to conceptualising a transition process received almost no deeper elaboration. Therefore, my research focuses on a conceptualisation towards servitization that could be applied by practitioners of traditional product manufacturers. While considering strictly customer requirements they could decide specifically and individually upon implementation processes and priorities and take measures to encourage and facilitate their further servitization progress. The business potential of the suggested platform approach could result in a reproducible, consistent, sustainable and scalable service delivery processes.

Further, the servitization philosophy is inextricably linked to customer-requirements and the solving of customer problems. Thus, manufacturer executives ought to be aware that trust, interaction and communication should be established across all customer and manufacturer functions. Based on a resources alignment close to customer problems, they constitute the prerequisite of a strong, durable and profitable relationship. This could

enable a resilient customer collaboration that is necessary in order to be involved in problems and thus involved in the co-creation of solutions. Inevitably, service functions should understand their customers' business processes and acquire the necessary specific industry and sector knowledge. In particular, service executives should be aware of how customers implement burgeoning technologies like IoT, 3D printing and network technologies as it will strongly impact their capabilities and processes in assisting in the achievement of a high business process availability. Furthermore, service delivery functions need to assess their capabilities to continuously monitor customer processes remotely, collect the related data and analyse them in order to prevent or predict remedial interventions, as the related service processes differ remarkably from product-oriented service processes.

In addition, service executives at the initial stages leading to servitization could find that they do not possess and master the entire scope of capabilities and service skills. In order to avoid a premature limitation of their offered service scope they should revise alternatives for service sourcing and service co-operation. Lastly, the entire journey constitutes seemingly an endless process where the successful implementation of each stage might exceed by far the planned timeframes and established objectives. In spite of all the ambition in delivering on target, executives should be prepared to envisage the need for a fair amount of patience.

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THE APPLICATION OF WORK-INTEGRATED LEARNING (WIL) AS A SKILLS DEVELOPMENT STRATEGY IN A COMPREHENSIVE UNIVERSITY IN SOUTH AFRICA: CHALLENGES AND OPPORTUNITIES

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ABSTRACT

Work-integrated learning (WIL) has been defined by Patrick, Peach and Pocknee (2009) as “an umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum”. WIL programs present many possibilities in delivering on the promise of work-ready graduates who can be multi-skilled and adaptable. However there are challenges that are encountered in the implementation of this strategy. These challenges will shape the quality of WIL experienced by students. Therefore it is important for these challenges to be understood. This paper will shed light on the implementation of WIL as a strategy for skills development in a comprehensive university in South Africa. Challenges encountered during implementation will be discussed and successes highlighted. The paper will close with recommendations for addressing the challenges.

Keywords: Work-Integrated Learning, theory, practice, work-ready

INTRODUCTION

Within the higher education sector internationally, as well as in South Africa (e.g., Department of Education 1997), there have been calls for increased graduate employability (Saunders and Machell 2000). There is pressure on higher education from both government and employers to produce graduates who are employable in the sense that they have the attributes, capabilities and dispositions to work successfully. There is considerable interest, both in South Africa and internationally, in curricular and pedagogical reform that will both support students from diverse backgrounds and prepare them for the challenges of the global economy and responsible citizenship Council on Higher Education (2011). A number of studies have raised concerns about the work-readiness of graduates not in terms of lack of disciplinary knowledge but in terms of their generic employability skills (ACNielsen Research Services 2000; ACCI/BCA 2002) as cited in McLennan and Keating. In South Africa, Higher Education South Africa (HESA) & South African Qualifications Authority (SAQA) (2009) undertook a baseline study the purpose of which was to take stock of the views and expectations of employers and their evaluation of quality of graduates produced by South African higher education institutions. The report of this study signified a disparity between the expectations of employers and the readiness of graduates, and while expectations exceeded readiness, there was an indication that some tertiary institutions were focused towards producing graduates fully prepared for the workplace. According to Nel & Neale- Shutte (2013) nationally and internationally there is increasing pressure on higher education institutions to enhance the employability of graduates by ensuring that the learning experience contributes to inculcating the knowledge, skills and attributes that will enable graduates to perform successfully in the 21st century knowledge society. Graduate employability is not simply a graduate's ability to find work; it is more about ensuring graduates

possess the skills, knowledge and attributes (herein after referred to as ‘capabilities’) required for future employment success (Precision Consulting, 2007; Yorke, 2004) in Whelan, Oliver, Hunt, Hammer, Jones, and Pearce (2010). Work-integrated learning (WIL) is widely accepted as a point of difference in developing graduates’ employability by enhancing skill outcomes, such as team-work, communication, self-management and problem solving, employment prospects and student understanding of the world of work Jackson (2013).

This paper examined the application of work-integrated learning (WIL) as a strategy for skills development at Walter Sisulu University (WSU), a comprehensive university in South Africa. It also explored the challenges this comprehensive university confronts in the implementation of WIL. Opportunities have also been highlighted. The paper closes with recommendations on addressing the challenges of implementing WIL that have been identified in this study. WIL has been defined by Patrick, Peach and Pocknee (2009) as “an umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum”. Martin and Hugh (2009) note that WIL experiences provide a bridge for the student between the academic present and their professional future – an opportunity to apply and merge theoretical knowledge gained in academic studies to “real world” workplace practical experiences, and to prepare the student for a career by providing an opportunity to develop professional skills. What distinguishes WIL from narrow conceptions of learning-for-work is the emphasis on the integrative aspects of such learning. WIL integrates the theory students learn in the classroom with workplace practice. Research suggests that the development of any skill is best facilitated by giving students practice and not by simply talking about or demonstrating what to do. A key purpose of WIL is the notion of providing graduates with a comprehensive skill-set desired by potential employers (Coll et al. 2008). Work-Integrated Learning experiences within the curriculum have been shown to support the development of behavioural competencies (Dressler & Keeling, 2004) in Martin and Hughes (2009). According to Kamsah (2004) graduates lacking of generic skills is a global issue. Kamsah (2004) further notes that employers worldwide found far too many entry level job applicants deficient in generic skills, and want the public schools or institutions of higher learning to place more emphasis on developing these skills. HESA and the South African Qualifications Authority (2009) in the baseline study on graduates attributes conducted in South Africa concur with Kamsah (2004) on graduates’ lack of generic skills.

WORK-INTEGRATED LEARNING IN SOUTH AFRICA

A number of studies (Rasool & Botha 2011; Nel & Neale-Shutte2013; Kraak 2004) have confirmed that unemployment, shortage of skills and economic growth are major problems confronting the South African economy. Many analysts regard poor skills levels as the most important cause of South Africa’s high unemployment. It is argued that South Africa has a surplus of unskilled and semi-skilled workers and a big shortage of skilled people. Skills shortages in South Africa are the consequence of the interplay of several complex socio-political and economic factors. Rasool & Botha (2011) contend that a few major factors that contribute to an extensive shortage of skills in South Africa are: globalisation, dysfunctional education system, structural changes in the labour market, general under-investment in skills development and emigration.

The democratic government which came into power in 1994 inherited a higher education system that was divided along racial and regional lines. Therefore the role of skills and skills development through training is a matter of considerable academic and political debate. According to the Minister of Higher Education and Training in South Africa, Nzimande (2011), skills development is vital in the fight against poverty and unemployment in South Africa. The Minister of Higher Education (2011) further notes that skills development is central in the objectives and goals South Africa wants to achieve as a country to fight poverty, inequality and unemployment. The Ministry of higher education (2011) contends: “As a country we are short of many skills and we need to turn our education system (around) to be able to respond better to the many skills that we need, and shift the bias away from focusing on university education”. The South African government is giving the issue of skills shortages considerable attention. The proliferation of new legislation, like the Skills Development Act 97 of 1999, The Skills Development Levies Act 9 of 1995, Employment Equity Act 55 of 1998, the White Paper for Post-School Education and Training (2013) and government policy documents like the National Skills Development Strategy III and the National Skills Accord reflect this. The legislation aims at developing the skills and employability of all citizens in order to alleviate poverty, address historical inequalities, create employment opportunities and improve the competitiveness of the national economy (Du Toit & Van Tonder,

2009) as cited in Rasool and Botha (2011). The government is trying desperately to increase valuable skills output through increased education budget. According to Kraak (2004) there is a growing realisation from government that the path to national economic prosperity depends fundamentally on a highly skilled workforce. However Rasol and Botha (2011) caution against the tendency to perceive the problem of skills shortage only from the perspective of a weak education and training system. They contend training is necessary but it is an inadequate response to alleviating skills shortages. Ellis (2008) notes that upgrading the educational system is necessary but it would not produce enough entrants to the labour market to eliminate the skills shortages in the short term. Nzimande (2009) acknowledged that education and training by themselves cannot resolve the problem of skills shortage.

The current interest in WIL in higher education is closely linked to governments' and industries' concern with lifting workplace participation and productivity, addressing skills and labour shortages. All employers are being asked to respond to South African labour and skills shortages. Nzimande (2011) made a call that every workplace should be made a training space. According to the White Paper for Post-School Education and Training (2013) it is essential that the public sector is opened up as a training space to the greatest extent possible, not only to meet the very significant skills needs of government, but also to ensure that government plays its role in addressing national skills shortages. The South African government positions WIL as a strategy for enhancing skills development as well as providing students with income while they study. Nzimande (2011) argues that we must further promote and institutionalise WIL, therefore promote efficiency in the education and training system and address the skills shortage and gaps experienced in the country. It is against this background that WSU implements WIL as a strategy for skills development.

WORK-INTEGRATED LEARNING AT WALTER SISULU UNIVERSITY

The context of this study is Walter Sisulu University, a comprehensive university in South Africa. Comprehensive Universities in South Africa were formed by the merger of technikons with traditional universities. The idea of establishing comprehensive institutions was informed by the fact that an institutional type that integrates university and technikon-type programmes would be well placed to contribute to addressing a range of goals, which are central to the Government's human resource development strategy Department of Education (2004). Comprehensive Institutions in South Africa are expected to meet a range of goals identified in the National Plan for Higher Education and which are central to Government's Human Resource Development Strategy, including:

- Increased access, in particular, to career-focused programmes with students able to choose from a wider variety of programmes with different entry requirements.
- Improved articulation between the career-focused and general academic programmes, thus facilitating student mobility between different programmes.
- Expanded opportunities for research and the strengthening and development of applied research through linking emerging foci of the technikon to current research strengths of the university.
- Enhanced capacity (because of the broader range of expertise and foci) to respond to the social and economic needs of the region in general and of industry and civil society in particular (Department of Education 2002:24).

WSU resulted from a merger of two technikons and one traditional university. In line with WSU's vision which focuses on innovative education, research and community partnership programs that are responsive to local, regional, national and cognizant of continental and international development priorities some academic programs at this institution are designed to incorporate a compulsory component of WIL which is meant to give students the opportunity to integrate theory with practice so that at the end of the academic program students are work-ready. This requires students to spend some time in the workplace doing some work relevant to the student's curriculum. This means students doing programs with a compulsory WIL component cannot graduate unless they complete the required period in the workplace. WIL is essentially a partnership among the student, the university and the employer. It is based on the philosophy that learners learn best through active engagement in meaningful activities. During WIL experience students are able to apply the technical or discipline-related theory and skills that they acquired at the university to practical situations in the workplace. Students simultaneously gain valuable insight and practice in the people and procedural skills that operate in the

workplace. When they return to the classroom they are then able to further integrate their practical experiences with theory. Students have to record everything they do in the workplace in the logbooks and complete some projects and assignments. Once a month the student on WIL has to sit down with his or her supervisor to conduct a performance appraisal. The student must get feedback on how he or she is doing on the job so that he or she can work on the shortcomings whilst still on the WIL program. On return from undertaking WIL in the workplace students have to reflect on their experiences by making presentations to the departmental WIL coordinators staff and students in the department including those who have not yet started their WIL programs. The length of the training period varies from program to program. The National Diplomas in Hospitality Management, Electrical Engineering, Civil Engineering, Mechanical Engineering and Construction Management and Quantity Surveying require students to complete twelve (12) months training. In the case of Hospitality Management the first six (6) months training is undertaken during the second semester of the students' second year and the last six (6) months is done during the last semester of the final year. All of the following programs have a six (6) months compulsory WIL component: National Diplomas in Small Business Management, Marketing Management, Journalism, Public Relations Management, Consumer Science and Analytical Chemistry. The National Diploma in Tourism Management requires students to spend four (4) months in the industry, the National Diploma in Administrative Management three months and the National Diploma in Office Management and Technology nine weeks.

The WIL unit at WSU places more than eight hundred (800) students per annum in accredited WIL positions across South Africa. The WIL model adopted is both centralized and decentralized. This involves a centralized management to which the decentralized, academically-based staff report. During the WIL period an academic from the university acts as the student's academic supervisor and a senior official from the company that offered placement acts as the industry supervisor. All students have to go through a preparatory program called work-preparedness program (WPP) or orientation before starting the WIL program. The following section will discuss the WPP which is another tool the institution applies to develop students' employability skills.

WORK-PREPAREDNESS PROGRAM

The WPP at this WSU has been developed to explicitly prepare students for WIL placements and to enable them to articulate the learning from that placement. It is an integral part of WIL. The purpose of WPP is to develop skills and attitudes that would result in better workplace practices. The orientation equips students with the knowledge, skills and attributes needed in the workplace. It allows students to gain confidence in dealing with industry representatives. The WPP is designed to enhance students' generic skills. Generic skills are "employability" skills used in the application of knowledge. These skills are not job specific, but are skills which cut horizontally across all industries and vertically across all jobs from entry level to chief executive officer. Frequently, students, even those with a strong technical background and a high academic record, can battle in obtaining work placement as they stumble at the interview stage due to a lack of social or professional skills. WPP is offered to enable students to enhance their employability and to prepare for transition to WIL through interview preparation.

The main focus of the WPP is to assist students to:

- know the importance of doing WIL as part of the hospitality management program
- understand workplace expectations on them and what in turn they can expect from the workplace
- understand the importance of generic attributes for the workplace; and
- gain greater understanding of their professional responsibilities while in the workplace

Students are reminded that in thinking about professional practice there are three types of skills: broad-base or personal skills, work-related or professional skills and job-specific or technical skills. By the end of the WPP students will have created a resume, clearly stating their strengths, previous experience and their goals for placement. Students are each presented with a WIL student handbook which contains all the information students may need with regard to WIL and preparing themselves for interviews after graduation.

The WPP at WSU covers the following components:

- What WIL entails
- How the logbook is completed
- Benefits of WIL (for students, employers and the university)
- Roles and responsibilities of students, employers and the university

- Labour relations as it applies to trainees
- Abuse of students (including sexual harassment) in the workplace
- CV writing
- Interview skills
- Professional conduct
- Effective communication
- Conflict resolution
- Teamwork
- Problem solving skills
- Learning on the job
- Time management
- Telephone use

The intention of giving students this orientation prior to starting their WIL programme is so that they are of value to the employer from the beginning of the training period. The WPP has been designed to ensure students are not lost in a professional environment.

RESEARCH OBJECTIVES

The objectives of this article were to:

- Examine how WSU in South Africa has used work-integrated learning as a strategy for developing its graduates' skills
- discuss the challenges experienced at WSU whilst implementing WIL
- highlight success in implementing WIL
- provide recommendations for addressing the challenges

RESEARCH QUESTIONS

The main research question for this study was:

How does the WSU implement WIL as a strategy for skills development ?

METHODOLOGY

This paper explores how WSU in South Africa applies WIL to develop its graduates' skills. Challenges that confront the university as it implements WIL are discussed and successes are highlighted. The paper closes with conclusion and recommendations. The research approach adopted was qualitative in nature with data acquired from literature review, documents analysis, and interviews in order to obtain views from a wide variety of perspectives . In-depth interviews were held with WIL coordinators and heads of departments that offer academic programs with a compulsory WIL component and staff from the WIL unit in order to obtain views from a wide perspective. This procedure is referred to as triangulation which involves utilizing a combination of methodologies in the study of the same phenomenon Cresswell (1994).

CHALLENGES

WIL coordinators interviewed identified and explained a range of challenges they confront in the implementation of WIL at the WSU. The key challenges are discussed below:

Insufficient placements opportunities

Securing WIL placement is becoming a challenge as WIL becomes more widespread. The university places the majority of students but it still cannot place all of them. The institution struggles a lot in placing female students in Civil Engineering as some employers say conditions are not suitable for female; they prefer placing male students.

Lack of professionally trained people

In some cases students in the workplace are supervised by people who are not professionally trained. The Civil Engineering department always requests employers to place students under the supervision of consultants. Some employers agree and others do not agree.

Resource intensiveness

WIL is undoubtedly resource intensive. The Department of Higher Education and Training (DHET) in South Africa does not fund WIL. It is argued that WIL does not generate full-time equivalent (FTEs). It is compulsory that students must be visited during the WIL period. The purpose of the visits is to monitor the training that students are receiving. It is also to strengthen the relations between the particular employer and the institution. The visiting time is also meant for the WIL coordinator to deal with problems experienced either by the employer or the trainee. Visitations cannot take place unless there is enough budget available. In the case of WSU students are visited only once in a semester because of scarcity of financial resources. The institution would have loved for students to be visited twice a semester.

No stipend or remuneration

There are some employers who do not pay the trainees at all. As a result some students cannot take placements that are far from home as they will need to pay for accommodation, transport and meals. A typical example is that of guesthouses in the case of Hospitality Management where guesthouse owners do not have a budget for training, and they do not have partnership with the relevant SETA. In some of these guesthouses the quality of training is poor and trainees are left alone to run the business with no supervision. Sometimes students accept such training even where there is no stipend out of desperation to finish their studies; and in such cases most of them do not complete their training.

The Food and Consumer Science students get placement in public hospitals and food manufacturing companies in the Eastern Cape and all of these organisations do not pay. The institution signed an MOU with a company in Port Elizabeth but students had to come back without completing the training due to lack of finances to pay for accommodation and transport. The majority of our students for the National Diploma in Public Relations are placed in government departments and they do not get any remuneration. These students claim their counterparts from the FET Colleges get the stipend from the Colleges.

Misconception of WIL

Some departments do not understand the concept of WIL; they think it is the same thing as the internship. In the case of WSU internship refers to the work-based learning students undertake after graduation whereas WIL is done so as to graduate.

Competition with FET Colleges/SETAs

Some employers argue that the mandate that has been given to them by the Ministry of Higher Education and Training (DHET) is that of taking care of FET College students and would therefore only consider university students after all FET students have been placed. This has been the case in Small Business Management, Hospitality Management, Administrative Management and Public Relations students. In one case the researcher personally negotiated with a hotel in Port Elizabeth and reached an agreement with the general manager that the hotel will take WSU hospitality students the following year. When the time came the general manager told the researcher a SETA has sent her twelve FET College students and therefore she does not have space for WSU students.

Interviews a pre-requisite

There are hotels that make interviews a pre-requisite before students can be offered training. In a case like this travelling becomes a challenge for some students and they end up missing the opportunity.

No proper supervision

In certain cases students are not assigned to mentors who will monitor their progress. In some cases logbooks are only signed when students are about to leave the workplace. This is a challenge because students need to be provided with feedback whilst still in the workplace so that they can improve.

Unavailability of mentors during visits

Unavailability of mentor/supervisors when academics visit the workplace even though a pre-arrangement to visit was made and the reason that there are other commitments is given.

Students assigned irrelevant work

Journalism students in municipalities and government departments are not used for journalism but to answer telephone calls.

SUCSESSES

There are success stories regarding implementation of WIL at WSU.

Top management support

Top management at WSU promotes WIL as a way to link theory and practice. This institution has thus taken a conscious decision to institutionalise WIL. This means WIL will be a compulsory component of this university's students' curriculum to graduate with a degree or diploma. Top management of this comprehensive university sets aside a budget for WIL students' visitation, transport costs, accommodation and meals for academics when visiting workplaces where students are undertaking WIL. Students are visited only once per semester. If there were enough funds they would be visited twice per semester.

Control mechanisms

Visiting students during training are one form of monitoring the placement. Visits are also a way of strengthening relations between the university and the employer.

Strong relations with industry

This university has very strong relations with employers. WSU has signed memoranda of agreement/understanding with quite a number of employers whereby the employers commit to placing students for WIL.

Business breakfast

The WIL unit at WSU holds business breakfasts annually where employers are invited to come on campus. The purpose of this function is to recognise employers who host WSU students for WIL and also employ them. It is also to encourage those employers who do not participate in WIL to join in.

Advisory boards

WSU as an engaged university offering a comprehensive range of programmes, promotes two way communication on academic matters between the university, external stakeholders and the community it serves. The advisory committee serves as one of the vehicles for achieving this objective. There is an advisory board for each institutional programme or group of programmes offered by the university. These committees meet at least once a year. The functions of the advisory board are to:

- provide input and guidelines concerning aspects related to the curriculum (including admission and assessment requirements), external needs, vocational profiles, relevance and research
- contributing to programme review
- providing information relating to changes required in the curriculum deriving from changes in the external environment (WSU advisory board policy)

WIL is a standing item on the agenda of the advisory meetings. The head of the WIL unit and WIL coordinators are members of the advisory committee. Consultation procedures employed (advisory committee meetings or other) cater for quality inputs concerning the changes and anticipated developments in industry.

WIL week

This event is also organised by the WIL Unit. The purpose of the WIL week is to provide WSU students with face-to-face networking opportunities with employers. It is also meant for employers to enlighten students on opportunities available in their companies on WIL, internship, part-time and permanent employment and bursaries. The role of the WIL Unit is to invite employers to the WIL week and coordinate everything that has to do with employers in the function.

Placement

In the following academic programmes 100% of students are placed : Hospitality management (Buffalo City Campus), Small Business Management, Journalism, Mechanical Engineering because of the Office of the Premier's placement program funded by MERSETA., Administrative Management and Food and Consumer Science. For the rest of the programs we are able to place around 80% to 90%. Some of our students end up being absorbed when they complete the WIL program. A lot of our students are absorbed by TRANSNET who takes a lot of our engineering students for WIL.

Positive feedback

We get a lot of positive comments from employers especially in journalism and hospitality management. The institution has also begun to expand and develop opportunities for students to participate in WIL abroad. Six (6) of WSU hospitality management and tourism students got overseas placements through an employment agency. WSU get a lot of support from the Department of Sport Recreation Arts and Culture (DSRAC) in the Eastern Cape in placing tourism students but the institution wishes this department could increase its intake.

Tsogo Sun takes 55 hospitality management students and place them in their hotels throughout South Africa. The City Lodge Group took 20 students last year and placed them in their different hotels. Other hotels that are committed in placing our students for WIL are: Sun international, Radisson Hotel, ICC, and Osner Hotel, Kennaway Hotel and Transnet (Phelophepha).

Learner tracking

WSU knows where their students are placed because they are placed either through the WIL office or through their academic departments. In cases where students find training on their own there is a form that is in the logbook which they must complete and fax to the WIL office. This is emphasised by the WIL coordinator during the WPP sessions.

CONCLUSION AND RECOMMENDATIONS

This case study provides strong support for the application of WIL as a skills development strategy at Walter Sisulu University in South Africa. Even though WIL in South is not funded by government WSU places strategic importance on the initiative by providing resources in the form of a budget and human resources for its implementation. This article has highlighted challenges and successes in the implementation of WIL in this comprehensive university. It is recommended that WIL coordinators have more interaction with the workplaces where students undergo training and emphasize the importance of performance appraisal for the students. Workplace supervisors need to understand that it is crucial that students receive feedback on their performance while still in the workplace so they have time to work on their shortcomings.

The outcomes of this research point to avenues further research where the views of the students could be solicited regarding the contribution of WIL in their skills development. This would provide further understanding of the impact of WIL initiatives on students' skill development.

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SUSTAINABLE DEVELOPMENT AND EDUCATION: A TUNISIAN CASE STUDY

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ABSTRACT

Sustainability expresses the challenges will have to meet production methods and responsible consumption in a society that respects citizens and the environment. Public and private players have already moved in this direction. For them, the challenges of sustainable development are, ethical and strategic, political and economic, and also educational and communication issues should be treated. From marketing to advertising, corporate communications to public campaigns awareness, sustainability messages are embodied in practices that claim. It is to understand the context and practices that bring businesses and public institutions to position themselves through the sustainability communication. The education is an asset for sustainable development if we deploy the appropriate strategy. in this paper we try to understand the concept of sustainable development, to present the role of education to promote it. Finally we analyze and present recommendations of a Tunisian case study in this field.

Keywords: Sustainable Development, education, communication, awareness

INTRODUCTION

The exhaustion of resources, pollution, the increasing gap between rich and poor, the climate change...Many problems lead us to interrogate about the future. Industries and government are considered the principals responsible. So the sustainable development appears as the unique solution to guarantee the future. Citizens, governments, organizations and industries have to commit in this process. The government has to provide infrastructures, promulgate laws, establish an education strategy for sustainable development and conduct communication campaigns. To realize the objective of sustainable development in the consumption, the government could use communication. For the public institution the challenge will be taken via education and the sensitization of citizens for sustainable development. In this paper we will present: definition, issues, goals of sustainable development, public communication and finally we expose Tunisian strategy education for sustainable development and we present recommendations.

Elements of definition

Future generations: According to the established formula, the term "sustainable development" means "development that meets the needs of the present without compromising the ability of future generations to meet their needs "(Report of the World Commission on Environment and Development, Our Common Future, 1987 - says "Brundtland Report").

A three-pillar development: If the main reference of the term refers to respect for future generations, development sustainable also means a change in perspective and methods towards more cross in approaches. As opposed to a strictly development economist design, dominant until the early 1990s, sustainable development is "integration balanced economic, social and environmental objectives of society, in the spirit equity and with a view to safeguard the interests of future generations "(TM Smouts, D.Battistella & P. Venneso: 2003).

The principle of interdependence: Recognition of social and environmental factors of development alongside economic factors is not content to juxtapose these three dimensions but highlights links interdependence between them in the evolution of human societies.

Pluralism and communication: The interdependence of economic, social and environmental dimensions of development is interdependent actors. Sustainable development has thus been assigned a fourth pillar often referred through the concept of "governance". This notion both normative and functional (JN Rosenau & EO Czempiel (eds): 1992; Smouts MC (ed.): 1998.) today is highly integrated with public initiatives but also for business operations. It assumes the centrality of communication and pluralism of actors ("stakeholders") lawfully engaged in the process of deliberation and decision-making on environmental and development policy. Despite numerous definitions, Sustainable development has a single purpose: the mutation of social and environmental practices that covers the development and can contribute to the part of a safety logic, balance and continuity, in other words "sustainability".

Controversy: The ethical dimensions of sustainable development are the subject of a broad consensus among Government, citizens and businesses. But the means that should be implemented to convert the realities values are controversial. The criticisms made against the notion even "sustainable development" are many, some are essential to the debate.

KEY ISSUES OF SUSTAINABLE DEVELOPMENT ISSUES

Environmental issues: depletion of natural resources (non-renewable), waste, pollution air, water and soil, destruction of the ozone layer, global warming (or "greenhouse effect") and climate change, loss of biodiversity.

Social issues: poverty, unhealthy conditions (housing, access to drinking water), inequality, child labor, lack of basic services (health, education, mobility, communication), chemical pollution, food risks, obesity, risky practices, discrimination, marginalization, political instability.

Economic challenges: unfair competition (as opposed to fair trade), working conditions, unemployment, responsible production (subcontracting chains).

Communicational issues: representation of values of sustainable development in advertising, relationship public, marketing and other forms of public or commercial communication.

GOALS

The adoption of sustainable development strategy enhances the quality of life. This is a list of examples of ultimate goals:

- Establishing sustainable consumption and production.
- Strengthening social equity and national solidarity.
- Sustainable management of natural resources.
- Promoting quality of life.
- Developing sustainable cities.
- Sustainable management of the coast.
- Promoting sustainable transport.
- Rationalizing energy consumption and promote new and renewable energies.
- Strengthening the capacity of adaptation to climate change.
- Promoting the knowledge society,

Adapting governance for better promotion of sustainable development.

Integration of the sustainable development from the perspective of communication and Marketing

The success of sustainable development to the public and policy makers had important consequences for the various forms of social communication, both actions public communication designed to the attention of citizens / users or marketing tools developed by companies to the attention of consumers.

Sustainable development and public communication

Sustainability claims prescribe principles for better management of the city. It must therefore be seen as a real political project with the first issue the informed support and active participation of citizens.

Under the leadership of the government, the conversion practices principles involves efforts communication and mediation: to inform, educate, influence perceptions and behavior, relaying and legitimizing the implementation of public policies are objectives adjacent to the communication of the institutional actors (R. Debray: 1993; C. Olivier-Yaniv: 2000).

If the distinction between institutions and corporate communication remains relevant in terms of actors and aims, methodological borrowings are numerous. The Marketing has made it into the public communication in the 1980s and influences now deep awareness campaigns and mobilization.

Information and participation: challenges and opportunities for public institutions

Meet the objectives inherent in sustainable development in the field of consumption using communication is also a challenge and an opportunity for public institutions. The sustainability claims indeed prescribe the principles of better collective management of the City, with the first issue of informed support and participation of citizens. Under the leadership of powers public, it involves communication and mediation efforts on the part of institutions that embody the project in its various aspects and serve its realization. Inform, educate, influence perceptions and behaviors, mobilize, relaying and legitimizing the implementation of public policies are objectives inherent in corporate communications and sustainable development.

Education

For public institutions, the challenge will doubtless primarily through education and awareness citizens to sustainable development. Environmental education is also a tool at every citizen's disposal allowing him/her to better understand environmental problems that may occur and imagine what could happen if these were caused by him/her or someone else.

Developing an environmental culture among citizens will only stimulate their participation in the environmental activities, actively and in a responsible manner. In fact, it is only through full awareness of the environmental issues that citizens could be involved, in a productive manner, in decisions making and could adopt the correct behavior that takes into account environmental protection concerns in every action taken. Certainly, an environmental education that uses appropriate educational tools suitable for the problems being treated and which is conducted through reliable communication means constitutes an essential element and is necessary for promoting sustainable development, to the fact that it allows developing one's environmental awareness since childhood and beyond when he/she faces professional life and accordingly makes him/her deeply involved and more responsible towards protecting the environment and preserving natural resources. The environmental education which advocates sustainable development surpasses school age and it should be incorporated in other educational and university stages.

METHODOLOGY

In this paper we used secondary sources of information which is the website of the ministry of environment and sustainable development in Tunisia. We present and analyze a case study of the strategy of education for sustainable development in Tunisia.

The national Tunisian strategy of education for sustainable development

Having the Tunisian experience on environmental education as a starting point and taking into account the important role that the citizens may play in implementing environmental protection and sustainable development programs, a National Strategy on Education for sustainable development has been recently developed with the following objectives:

- Develop the quality of environmental education and promote the development of positive and responsible behaviors towards the environment.
- Generalize and develop awareness and **communication** for sustainable development outside the education system: economic sectors, regions and localities, NGOs
- Establishment of a **communication and information** device for sustainable development in connection with all stakeholders.

Looking forward to better achieving these objectives and assisting in the evaluation of results and achievements of various programs which will be carried out within this strategy, four action areas are identified as priority interventions areas of the national strategy on environmental education:

Part 1: Official education

- Integrating environment's concepts and themes in educational disciplines and strengthening and diversifying the environmental subjects listed in school programs.
- Developing school manuals, work-books, supporting technical materials and other innovative tools that help in the implementation of official educational programs.
- Increase field visits with teachers and environmental specialists coaching.

Part 2: Awareness and entertainment for sustainable development

This is through:

- The non-formal education system, wide spreading environmental clubs especially in schools and in childcare centers.
- Diversifying the activities and initiatives of environmental clubs aiming at better addressing the concept and principles of Sustainable Development (Green spaces, ecological initiatives, workshops and exchange of visits between environmental clubs and neighborhood committees, planning meetings for members of environmental clubs with managers of industrial, touristic and agricultural firms and other companies in order to make discussions on various environmental issues and the sustainable enterprise in particular, etc...).
- Allowing teachers and environmental club animators to get an extensive environmental training that makes them act according to the real conditions and situations of their surroundings.
- Strengthening the involvement of NGOs in environmental club activities and school environmental initiatives.

Part 3: Raising environmental awareness and the development of responsible behaviors among the public

Setting up an understanding program and developing communication means and tools aiming to disseminating. For examples: adoption of responsible and productive behaviors with regards to the environment.

Part 4: Raising environmental awareness in regional and local planification and development

- Directing all attention to the educational and informational activity within the Agenda 21 of cities and local communities.
- Implementing training programs to support the capacity of societies and enable an integrated package of support.
- Setting up programs to support the partnership with associations in the field of environmental awareness.

- Setting up a mechanism to activate the role of the private sector in the field of information and awareness for sustainable development.

We present a table summarize the national strategy of education for sustainable development.

Tab1: The national strategy of education for sustainable development

Promote the knowledge society			
issues	The strategic priorities	The levers	monitoring indicators
1. system rooted in Tunisian traditions but requiring a An education growing and updating development.	1. Develop and modernize the educational system to meet the aspirations of the Youth and could raise the future challenges.	1.Designing with all parties concerned, a project Education for Tomorrow's Tunisia. 2. Structuring the educational project on the constant desire to develop the pupil of analysis, synthesis and communication.	Development and implementation of the Modernization of the Program of educational system.
2.A school and a University more more offset relation to reality and especially the needs of job market.	2.Support and boost training so that it is real support for employment and improving the professional performance	3. To meet the needs of the labor market, the project education must ensure and promote among the student and the student namely the more current, innovative capacity and control advanced technologies. 4. Foster as part of educational reform in the quality quantity and ensure the approximation of the Tunisian education system international standards. 5. Ensure the approximation to the full merger between the scientific research and economic development.	Annual number of young people participated in training courses
	3. Develop and modernize higher education to it is the foundation to a society of intelligence and knowledge.		International ranking of tunisian university
	4. Stimulate and adapt scientific research to meet the needs of the new economy.		Number of research patents per year

Source: Report of National strategy of sustainable development in Tunisia 2011.

Analyze of the National strategy of sustainable development in Tunisia

Based on the guide: how to communicate on sustainable development (PNUE and Futerra 2005), we have made an analyze of the National strategy of sustainable development in Tunisia. The monitoring indicators are inaccurate they have to be more specific for example: annual number of young people participated in training courses it would be more significant how many of those have been certificated that should be fixed previously. Also the number of research patents per year should be fixed in advance. Concerning the international ranking of university we should know our position now and which rank we will achieve this year. Development and implementation of the modernization of the program of educational system should be more accurate and specified by numbers or percentage.

Perspectives and recommendations

The growing awareness in the field of environmental education, increasing responsiveness to all that tends to protect the environment and encouragement to action in the field of environment can only help improve efficiency, content and approach of the program. Given the expansion of the national network of sustainable

schools, the continued support to this initiative and willingness to participate very large, and given the encouraging progress in implementing the initial stages of the program, it is used to predict a certain success for this program.

The efforts to expand this project will have a ripple effect and will trigger similar initiatives in the field of environmental education, which will help to extend the culture of sustainability among young people and thus realize the concept and principles of sustainable development adopted in our national choices and meet our international commitments in this area.

Furthermore, the Decade of Education for Sustainable Development proclaimed by the United Nations is an opportunity to strengthen cooperation with the parties involved in education at all levels, and create an education system to ensure a generation that is aware of requirements of sustainable development, which believes in its principles - including the solidarity between people, regions and generations - a generation whose every member is aware of his duties as a citizen must be environmentally friendly behavior to the environment ensure prosperity and quality of life for all Tunisians today and tomorrow.

To this end, a series of measures were suggested to strengthen the national network of sustainable schools and, more generally, to help strengthen environmental education and spread the culture of sustainability:

- Improvement and development work of the various stakeholders in the national system of environmental awareness and communication through human capacity building, technical and institutional in better control and coordination between the parties.
- Continue the involvement of environmental associations in the activities in the clubs of the environment of sustainable schools and give more effectively to the partnership agreement between the associations.
- Updating and development of the education system.
- University education should coincide with labor market needs.
- Develop and modernize higher education so that it forms the basis for an intelligence and knowledge society.
- Energize and adapt scientific research so that it meets the needs of the new economy.

CONCLUSION

Sustainable development is the only solution to guarantee the future of generations. Citizens, businesses and government have to commit in this process. The education is an important channel of communication and learning to introduce and to make the adoption of sustainable development a state of mind. The Tunisian government has an ambitious strategy for sustainable development for education. Once we adopt the appropriate strategy, we could achieve a progress in scientific research and a change in behavior of consumption.

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APPLYING THE LEADERSHIP SCALE TO MEASURE GENERATION Y STUDENT ATHLETES' PERCEPTIONS OF THE LEADERSHIP BEHAVIOUR OF SPORT COACHES

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ABSTRACT

The leadership behaviour of sport coaches is important to athletes as it influences their performance and motivation. Many theories and models have been developed on leadership with the objective of determining what constitutes a good or effective leader. This study focused on applying the sport leadership scale of Chelladuria and Saleh (1978) to determine the perceptions of Generation Y student athletes concerning the leadership behaviour of coaches. The leadership scale consists of five dimensions of leadership attributes. A convenience sampling method was used to collect data from a sample of 166 (N=166) sport students. The collected data was analysed using exploratory factor analysis to investigate the applicability of the scale to sport students. More than 87 percent of the items loaded on the correct dimensions as specified by Chelladuria and Saleh (1978), which suggests that this scale is suitable for measuring sport coaches' leadership behaviour in the South African context. Independent-samples t-tests were conducted in order to identify whether there were any significant differences in the coaching behaviour in terms of gender. Results indicate no significant difference on gender, suggesting that gender does not seem to have any impact on the perceptions of coaches' leadership behaviour.

Keywords: Generation Y sport students, leadership behaviour, perceptions, sport coaches

INTRODUCTION

Leaders are agents of change and affect followers to achieve common goals (Northouse, 2010; Gibson, Ivancevich & Donnelly, 2000). Leadership involves influence and occurs in groups where attention is given to common goals (Northouse, 2010). Laios, Theodorakis and Gargalianos (2003) made the following provocative statement about sport leadership "Probably no other quality is more important in the world of sports than leadership, the lack of which might create problems regarding discipline, communication, psychological and mental preparation, which can reduce individual and team performance" (p.150).

Leaders may be described as individuals with unique traits, who exhibit leader behaviour and who have the ability to influence organisational culture (Yukl & Fleet, 1992). Bahrami, Zardoshtian and Jourkesh (2011) state that a coach or leader should be considered as a supporter rather than to disciplinarian or dictator. McCormack (2007) is of the view that the most crucial factor of a coach's success is the ability to assist athletes to develop their skills and to recognise individual athlete's mental and psychical characteristics that impact on their performances. Meer and Rosen (2008) highlight that effective coaches are those who are familiar with the psychological and sociological issues of their athletes. Therefore, coaches not only care about sport skills but also consider, for example, the mental and social skills of athletes. However, Zaccaro, Rittman and Marks (2001) are of the opinion that leader effectiveness does not always translate into team effectiveness.

There are diverse research studies on the leadership behaviour of coaches. For example, Nazarudin, Fauzee, Jamalis, Geok and Din (2009) conducted a study that compared the relationship between coaching leadership behaviour and the athletes' level of satisfaction. Lindauer (2000) compared the preferred coaching leadership behaviour of individual college athletes with that of college team athletes. The focus of the study reported in this paper was to ascertain the applicability of the coach leadership scale of Chelladuria and Saleh scale (1980) on Generation Y student athletes and to determine their perceptions regarding the leadership behaviour of their coaches. Many of the studies conducted prior to 1980 used management/business leadership scales to determine the leadership behaviour of coaches. While these scales had their uses, Chelladurai and Saleh (1980) took the initiative to develop a leadership scale specific for coaches in the sport context.

This leadership scale for sport, also known as the LSS (Chelladuria & Saleh, 1980), proposes that leadership in sport comprises the following five dimensions, namely training and instruction, democratic behaviour, autocratic behaviour, social support and positive feedback. Chelladuria and Saleh (1980) explain the meaning of each dimension as follows: Training and instruction is one of the important functions of the coach and focuses on improving the performance level of the athlete. This dimension also addresses coaches assisting athletes in reaching their maximum physical potential through the acquisition of specific skills. The democratic and autocratic behaviour of coaches concern the extent to which the athlete is allowed to make his/her own decisions. The authors highlight that the distinction between democratic and autocratic behaviour is consistent with that in organisational behaviour research. The social support dimension is about how the coach is involved in satisfying the interpersonal needs of athletes. The positive feedback dimension is about whether the coach gives positive feedback regarding the achievements of athletes. Chelladuria and Saleh (1980) point out that positive feedback from a coach is crucial in motivating athletes.

A number of studies have utilised the Chelladuria and Saleh (1980) scale in different contexts. For example, Wałach-Biśta (2013) adapted the leadership sport scale to examine coaching behaviour in the Polish context. Pawar, Yadav and Sharma (2009) did an analysis of leadership behaviour preferred by individual sport athletes at inter-varsity level. In 1984, Terry and Howe used the LSS to determine the coaching preferences of athletes.

PURPOSE OF THE STUDY

The main purpose of this study translated into the following research questions: First, to determine the applicability of the leadership scale of Chelladuria and Saleh (1980) on Generation Y student athletes in South Africa concerning their perceptions of the leadership behaviour of their coaches. Secondly, to determine whether male and female sport students differ in their perceptions concerning the leadership behaviour of their coaches and thirdly, to determine whether white and black sport students differ in their perceptions regarding the leadership behaviour of their coaches.

METHODOLOGY

The research study followed a quantitative approach using a self-administered structured questionnaire. The target population was specified as full-time Generation Y sport students aged between 18-24 years, enrolled at a South African registered public higher education institution. A non-probability convenience sampling method was used to collect the data from a sample 166 students.

Measurement instrument and data collection procedures

A self-administered structured questionnaire was used to collect the required data. The questionnaire included the leadership sport scale of Chelladurai and Saleh (1980) to measure Generation Y sport students' perceptions of the leadership behaviour of their coaches. The scale included 40 items, divided into the five dimensions of training and instruction, democratic behaviour, autocratic behaviour, social support and positive feedback. Responses were measured on a five-point Likert scale, which ranged from never (1), seldom (2), occasionally (3), often (4) and always (5). A pilot study was conducted among 50 sport students to ascertain the internal-

consistency reliability of the scale and to ensure that students understood the questions as intended. The sport lecturers administered the questionnaire after lectures.

DATA ANALYSIS

The statistical package IBM SPSS Version 22 was used for the data analysis. Confirmatory factor analysis using principal components analysis was conducted to determine whether the items loaded on the same dimensions of that of the study. Reliability tests were conducted to measure the internal-consistency reliability of the scales in the questionnaire. Descriptive analyses were also computed. Independent-samples *t*-tests were conducted to determine whether perceptions of sport students with regard to their coaches' leadership behaviour differed by gender.

RESULTS

Sample characteristics

Of the 166 Generation Y sport students who participated in the study, 89 were males and 77 females. Majority of the male sport students indicated that they played soccer whilst most of the female participants indicated that they play netball. The demographic information is provided in Table 1.

Table 1: Sample description

Variable	Categories	N	%
Gender	Male	89	54
	Female	77	46
Race	Black	124	75
	White	42	25
Sport	Rugby	21	13
	Soccer	60	31
	Netball	32	19
	Athletics	13	8
	Hockey	17	10
	Other	23	14

Factor Analysis

As the primary objective of the study was to determine whether the leadership sport scale could be applied to Generation Y student athletes in South Africa, principal component analysis using varimax rotation was used to determine whether the factor structure of the scale corresponded with that of Chelladurai and Saleh (1980). Prior to conducting the analysis, the sampling adequacy of the sample data was checked using Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity. The KMO value was computed as 0.850, which is well above the suggested minimum value of 0.6 for good factor analysis (Pallant, 2010). A Bartlett's Test of Sphericity was significant ($\chi^2 (780) = 3383.283, p < 0.000$), thereby providing additional evidence that the sample data were suitable for factor analysis (Pallant, 2010). The results of the principle component analysis are reported in Table 2.

Table 2: Factor analysis results of perceptions

	Factors				
	1	2	3	4	5
Factor 1: Training and instruction					
Sees to it that every athlete is working to his/her capacity	.660				
Explains to each athlete the techniques and tactics of the sport	.643				
Pays special attention to correcting athlete's mistakes	.668				
Make sure that his/her part in the team is understood by all the athletes	.593				

Instructs every athlete individually in the skills of the sport	.585				
Figures ahead on what should be done	.635				
Explains to every athlete what he/she should and what he/she should not do	.617				
Expects every athlete to carry out his assignment to the last detail	.481				
Points out each athlete's strength and weaknesses	.409				
Gives specific instructions to each athlete as to what he/she should do in every situation	.620				
Sees to it that the efforts are coordinated	.604				
Explains how each athlete's contribution fits into the total picture	.572				
Specifies in detail what is expected of each athlete	.714				
Factor 2: Democratic Behaviour					
Asks for opinion of the athletes on strategies for specific competitions	.589				
Get group approval on important matters before going ahead	.530				
Allows his/her athletes to share in decision making	.688				
Encourage athletes to make suggestions for ways for conducting practices	.652				
Allows the group to set its own goals	.650				
Allows the athletes to try their own way even if they make mistakes	.765				
Asks for opinion of the athletes on important coaching matters	.774				
Allows the athletes to work at their own speed	.641				
Allows the athletes to decide on the plays to be used in a game	.566				
Factor 3: Autocratic behaviour					
Works relatively independent of the athletes	.452				
Does not explain his/her action	.754				
Refuses to compromise a point	.755				
Keeps to himself/herself	.759				
Speaks in a manner not to be questioned	.766				
Factor 4: Social Support					
Helps the athletes with their personal problems	.467				
Helps members of the group to settle their problems	.452				
Looks out for the personal welfare of the athletes	.482				
Does personal favours for the athletes	.725				
Expresses affection he/she feels for his/her athletes	.663				
Encourages the athlete to confide in him/her	.672				
Encourages close and informal relations with athletes	.680				
Invites athletes to his/her home	.666				
Factor 5: Positive Feedback)					
Compliments an athlete for his/her performance in front of others	.633				
Tells an athlete when he/she does a particular good job	.725				
Sees that an athlete is rewarded for a good performance	.632				
Expresses appreciation when an athlete performs well	.742				
Gives credit when credit is due	.676				
% of variance explained	25.279	9.348	7.269	5.996	4.067
Cumulative %	25.279	34.627	41.896	47.893	51.960
Extraction method: Principal Component Analysis					
Rotation method: Varimax with Kaiser Normalisation					
Suppressed at the level 0.3					

As is evident from Table 2, the principle component analyses analysis provided a five-factor solution that explained 51.960 percent of the total variance. All variables loaded as expected and all had significant

loadings of above 0.40, these significant loadings suggest convergent validity. In addition, all of the communalities were above 0.40, with the majority being above 0.50, thereby suggesting that a large amount of the variance in an item has been extracted by the factor solution (Hair, Black, Babin, & Anderson, 2010).

Descriptive analysis

The descriptive statistics and reliability coefficients of these five factors are reported in Table 3.

Table 3: Perceptions of coaches' leadership behaviour

Factor	Mean	Standard deviation	Standard error	Cronbach
Training and instruction	3.90	0.59	.9086	.877
Democratic Behaviour	3.26	0.83	.12939	.872
Autocratic Behaviour	2.66	0.88	.13525	.788
Social Support	3.06	0.80	.19444	.838
Positive Feedback	4.35	0.65	-.11556	.786

As presented in Table 3, the positive feedback factor with regard to the leadership perceptions of coaches scored the highest of all the five factors with a mean value of 4.35, followed by training and instruction (3.90), democratic behaviour (3.26), social support (3.06) and authoritarian behaviour (2.66). This indicated that the Generation Y student athletes believed that they were getting more than adequate support on this factor. The low score on the authoritarian factor is an indication that coaches were more democratic which bodes well for a supportive function by coaches as well. There were no major findings regarding the perceptual differences of males and females pertaining to the leadership behaviour of coaches. The reliability Cronbach values are also provided in Table 3. The Cronbach alpha of .877 of the training and instruction dimension (TI 1) was the greatest. The Cronbach values of all the five factors had Cronbach alpha values greater than .70, which exceeded the recommended level of 0.70 as suggested by Nunnally (1978).

Independent-samples t-tests

Table 4: Gender differences on leadership perceptions of coaches

Factor	Male Mean	Male Standard Deviation	Female Mean	Female Standard Deviation	T-Values	P-Values
Training and instruction	3.9376	.50749	3.8808	.67338	.626	.532
Democratic Behaviour	3.2395	.72582	3.2653	.95622	-.199	.842
Autocratic Behaviour	2.6956	.93291	2.6350	.81677	.448	.655
Social Support	3.1569	.81195	2.9625	.79962	1.570	.118
Positive Feedback	4.3044	.67189	4.4200	.62892	-1.153	.250

* Significant at the 0.50 level

As indicated in Table 4, an independent-samples *t*-test was conducted to determine whether the perception of males and females differed significantly with regard to the perception of the leadership behaviour of their coaches. There was no significant difference in scores for males and females, suggesting that gender does not seem to have any impact on the perceptions of the leadership behaviour of their coaches.

DISCUSSION

It is easy to point to examples of great leaders, but it is a lot more difficult to determine their specific characteristics (McCormack, 2007). The leadership behaviour of sport coaches is important to athletes as it influences their performance and motivation. Many theories and models have been developed on leadership with

the objective of determining what constitutes a good or effective leader. In South Africa the Government has set out the vision of ‘an active and winning nation’ where participation levels and international success in sport are increased. Therefore in South Africa (along with the rest of the world), the importance of leadership behaviour of sport coaches should be emphasised.

In this study the Generation Y students indicated that they feel leadership behaviour of coaches is important and pivotal to their success in sport. As it stands, coaches provide positive experiences in sport for millions of South Africans every year. Through their work, coaches recruit and retain participants to support the mass participation agenda and they provide the guidance necessary for athletes to progress to performance and high performance levels. However, a fundamental issue in South African sport is to engage male and female black coaches.

This study utilised the well-known, established and validated Chelladurai and Saleh (1980) in the South African context to determine Generation Y student athletes’ perceptions of the leadership behaviour of sport coaches. The factor structure that emerged from the confirmatory factor analysis was in line with that Chelladurai and Saleh (1980), showing that all variables loaded as expected and all had significant loadings. The descriptive statistics suggest that Generation Y student athletes believed that they were getting more than adequate support from their coaches. The positive feedback factor with regard to the leadership perceptions of coaches scored the highest of all the five factors and authoritarian behaviour the lowest. The low score on the authoritarian factor is an indication that coaches were more democratic which bodes well for a supportive function by coaches as well. There were no major findings regarding the perceptual differences of males and females pertaining to the leadership behaviour of coaches.

This finding suggests that leadership behaviour of coaches is important for Generation Y students. Therefore the Chelladurai and Saleh (1980) can be used in identifying the perceptions of Generation Y students with regard to the leadership behaviour of their coaches. Coaches can therefore use the leadership scale in sport determining the perceptions of Generation Y students with regard to their particular “shortcomings” and “strengths”. It can also be used in terms of how coaches differ from one another as well as be used as a longitudinal study to track perceptions of students in respect of the leadership behaviour of coaches over time. It should be noted that these are only perceptions.

LIMITATIONS OF THE STUDY

The research study was conducted at one institution, which is a drawback. Therefore, the results cannot be generalised to other South African higher institutions. It would be of value if the study could be rolled-out to other institutions or even sport clubs to determine whether the results will be of a similar nature. As such, future research relating to Generation Y student athletes’ perceptions of the leadership behaviour of sport coaches is advised.

CONCLUSION

Sport coaches should have an idea of the perceptions and expectations of their athletes regarding their leadership and coaching behaviour and whether their leadership behaviours are appropriate in a particular sport code. Some athletes have a preference for a particular leadership behaviour style and this can impact on the athlete’s motivation and performance. There should be a match between the coach’s leadership behaviour and what the athletes prefer so that all the outcomes can be positive. It is important that coaches need to get feedback from athletes as to know how these athletes perceive their leadership behaviour whether or not it is viewed in a positive or negative light. There should also be an understanding of the kind of relationship that is acceptable and beneficial to both the coach and the athlete.

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HOW DO CULTURAL VALUES CONTRIBUTE TO UNEMPLOYMENT: A CASE STUDY OF THE AFRICAN COMMUNITY IN STOCKHOLM

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ABSTRACT

This research seeks to find any correlation between ethnic cultural values and unemployment among the African community in Stockholm, Sweden. If unemployment can be both voluntary and involuntary then there is a need to look at the various attitudes that deters the immigrant from employment. Cultural values are inherent characteristics that have structured one's life for a very long time and have direct or indirect correlation to his/her socio-political life. By highlighting some of the cultural values from selected countries from North, West and East Africa an attempt is made to understand the contribution of cultural values to the high rate of unemployment among the African community in Stockholm, Sweden.

Keywords: Ethnic cultural values, unemployment, Stockholm

INTRODUCTION

The impact of migration on western economies labor market can either be negative or positive depending on how host countries conduct their policies, integrate the skills and accept the challenges, but most importantly how the cultural differences are handled. Gradually western countries are adjusting to the growing heterogeneous, immigration driven, labor force that impact their economies. In our research immigrants are defined as people who have migrated from their country of birth to another country whatever the reason. The migrants bring along different diversities to the labor market which is re-defining the economic policies and infrastructure of western countries. However the prejudiced attitudes of most host countries to a large extent restrain them from sourcing the qualities and skills of migrants which could have had positive impact on their economies. In attempt to solve these cultural perceptions, host countries have enacted laws and policies to either curtail or integrate the cultural values of the migrants in relation to national agendas or labor market needs. The result has been increased in unemployment among the migrant groups which leads to other related problems such as depression, poverty, homelessness, alienation, crime, shame and stigma, social isolation, erosion of confidence and self-esteem and suicide (McClelland and Macdonald, 1998, p 1).

Cultural values can be defined as peculiar characteristics that are associated with ones culture and are acquired through practice or beliefs. It can define ones formative years and inform his or her behavior. Schwartz' cultural value theory specifies how social relations are construed in a culture (Vauclair & Fischer, 2011, pp. 647). There have been various researches in this area in attempt to understand why cultural values can be obstacles for the minority groups in the labor market. McAdoo (1989) highlighted some of the salient problems facing ethnic minorities in the United States of America labor market as demand for higher skills, discrimination and age. She was of the opinion that "the wider the society views them in a stereotype manner" their cultural uniqueness and behavior would be disrespected and disregarded on the labor market. The perception of immigrants diluting the native culture, values and identity and in some situations to a "lesser extent, natives' economic outcomes" Gorinas (2011) instill fear and uneasiness and in attempt to defend native culture all sorts of defensive tactics are deployed. Some Swedes interviewed recently expressed their concern on migration in areas such as increase in criminal activities, abuse of the Swedish welfare system and adulteration of the native culture. Such assertions gain currency in communities like Rinkeby (suburb of Stockholm) where Somalis are

virtually in control and lawlessness is common. The natives have fled this area and unemployment is about the highest within the Stockholm community.

There is no doubt that without a comprehensive policy that can bring a form of “equilibrium” between the migrants’ economic needs and the social challenges associated with it, migration problem in the labor market will be like an albatross around the neck of receiving economies. Language is a major hindrance to the labor market which has been agreed by many studies. In a seminar on “the political and cultural debates surrounding migrants’ workers in UK” Malik (2007) was of the view that “the presence of immigrants helps crystalize already existing social anxieties, particularly anxieties about national identity and social cohesion”. This is translated onto the labor market where other factors like skills, education, language, etc come into play. In the mist of all these, what are the chances of the migrant worker in the labor market with his cultural values?

Current Situation

The social structure of the Sweden has undergone major changes since the beginning of the 1990s. It was estimated that 14.1% of the total population of 9,482,855 were immigrants or had at least one foreign born parent (Statistical Central Bureau, 2011). The role of immigrants can therefore not be ignored if the social structure is expected to function well. To deprive them of access to the labor market not only to sustain themselves or have meaningful livelihoods but to contribute to the overall welfare of the economy and society is detrimental to their personal and dependents welfare as much as the society as a whole. The employment patterns are interesting. The December 2011 unemployment figures by the Swedish Statistical Central Bureau showed that Stockholm had about 75,400 unemployed labor force (15-65 years old) out of which 6,400 were African immigrants. Closer scrutiny shows that while the total percentage of unemployment equated to 6.4% within the Stockholm County, the African immigrants’ unemployment percentage was at 22.8%. At the same point the national level unemployment stood at 8% for the total labor force in Sweden. A comparison with the other two Scandinavian countries – Norway and Denmark tell the same story. In Norway the Statistics Norway reporting on the unemployment situation said that “immigrants from Africa still had the highest level of unemployment in the fourth quarter of 2011, at 12.5 per cent”. Current trends show significant change in patterns. The question that arises is therefore “what is the cause of this huge unemployment figures among the African immigrants?” Comparing Africans to other minority groups, for example Asians, one can hardly find any difference in terms of qualifications, skills and education. To some extent the Africans can have an edge in language, since most of them can speak English. Hence the decision to take a closer analysis of the unemployment problem from a cultural perspective to understand the link between their cultural values and ethnic identities and employment is well justified. The aim of the research was to determine if cultural values contribute to the unemployment situation of the African migrant community in Stockholm from the perspective of the African communities and policy makers as well as government institutions which are responsible for integration and assimilation of the migrants and the natives on the labor market. The manner immigrants are integrated within the society can contribute to their chances on the labor market. Gorinas (2011) opined that “indeed economic integration of immigrants also takes place at the community level as newcomers have better chance to enter employment the bigger and the longer their ethnic group has been in the host country”. The dark side of this is that it can create segregation within the country. This is quiet true in some areas like Sodertalje and Rinkeby in Stockholm where South Americans and Somalis respectively control the suburbs. This research will therefore help to understand some of the dynamics of the various cultural values which are dominant and difficult to shed or clashes with the native culture that has contributed to the unemployment situation.

LITERATURE REVIEW

Minority Groups Unemployment Situation

Sweden is no exception in multiculturalism and Stockholm, having the largest immigrant population compared to other cities, has had to deal with unemployment among the immigrants as well. There is no doubt that cultural integration between the natives (Swedes) and immigrants is a major factor when it comes to job opportunities. Peroz and Rosca (2007) emphasized that ‘cultural discrimination is one of the main barriers for young immigrants’ participation in the labor market. Ethnocentrism is a central discussion in this research. Simply

defined ethnocentrism 'is the tendency to judge other cultures by the standard of one's own culture', Stemmer-Lueck (2007 cited in Peroz and Rosca, 2007). By believing that one is superior than the other introduces the passive attitude of rejecting what is good from the other side. Many immigrants come with a baggage full of cultural beliefs which for a very long time have shape their ways of life, either for better or worse. While the natives are also entrenched in their cultural beliefs and look with suspicion any foreign culture that attempts to break their domain. Swedes live in a high- context culture while the Africans are mostly of Low-context culture, Mead and Andrews (2009, pp. 33-34). Peroz and Rosca (2007) agreed with the European Foundation that "considerable ethnic discrimination exists in the Swedish labor market, which cannot be explained solely by human capital factors such as education or language skills", another area of my research. More interesting are the findings made by Brugger and Lalive (2009) on the unemployment situation among immigrants in Switzerland. Their findings "indicated that differences in culture (language) explain differences in unemployment duration by an order of 20%". They bring into focus the importance of horizontal transmission of culture as compared to vertical transmission of culture. This widens the scope of research to understand its effect in the case of Stockholm. Their empirical results suggest that "culture affects unemployment strongly".

Unemployment among ethnic minority groups has over the years attracted considerable research. Many researchers have viewed it from various perspectives, ethnic discrimination on the labor market, effects of culture on unemployment or cultural issues affecting labor market, unemployment among ethnic minorities, ethnic and racial self-employment to mention a few. While a few have narrowed it down to specific ethnic minorities for example Blackaby et al. (1999) work – Unemployment Among Britain's Ethnic Minorities, which specifically considered the unemployment conditions among Indian and Pakistani/Bangladeshi groups in United Kingdom others generalized their research to accommodate the general situation minorities face on the labor market e.g McAdoo's (1989) work "Cultural Issues Affecting Labor Force Participation" which tried to understand the minorities' labor participation in USA. However looking at the minorities unemployment situation from their cultural values as a major factor that is inhibiting their chances on the labor market has not been too well researched.

Cultural values have the tendency to influence the logical analysis of the individual since (s)he views situations from his or her inherent perspective, thereby ignoring or rejecting the present environment in which he or she lives in. Cultural psychologists argue that judgments of right or wrong are influenced by culturally based conceptions of the self (Vauclair and Fischer, 2011, pp. 646). The Africans have a different culture and are mostly traditional. The values from their traditional culture can be said to be an umbilical cord which they find difficult to sever. Sometimes it is blended with religious values and can erase some of the achieved characteristics such as education which to Pakulski and Waters (1996 cited in Storen, et al. 2009) are of increasing importance in the labor market. Their various societies lay emphasis on certain values, for example for most West Africans much respect is given to authority and would hardly challenge or disrespect the seat of authority.

Cultural values as defined above are peculiar characteristics that are associated with ones culture and are acquired through practice or belief. It can define ones formative years and inform his or her behavior. Guiso et al. (2006, cited in Brugger et al. 2009) referred to culture as "a set of beliefs and values shared within the religious, ethnic or social groups with separate identities". This reference of culture by Guiso et al. (2006) connects with Schwartz' cultural value theory which specifies how social relations are construed in a culture (Vauclair & Fischer, 2011, pp. 647). There have been various theoretical approaches to classify these characteristics over the years. One of the cultural values - Autonomy-Embeddedness, in Schwartz (2006) theory "specifies how social relations are construed in a culture – whether individuals see themselves as independent from or interdependent with others" Vauclair & Fischer, (2011). The ability to be independent in relation to the society is unusual to the African who have a communal cultural living. They maintain the "social relatedness" – thereby their individual characteristics or abilities being overshadowed. Among North Africans, egalitarianism is very much projected as a cultural value because they believe that all human beings are equal and the need to be concern for each other. But applying for job is a personal than collective effort. Hence Bye et al. (2010) pointed out the importance of self-presentation, since that is the only way one can correct any wrong perception of their "personality traits, values, abilities, and the major bond of this solidarity is language. Africans in Stockholm easily identify themselves with their languages which play a major role in spreading cultural beliefs and norms and at the same time can negatively be a barrier for their integration and employment, starting at job interviews. In Sweden where the African immigrant is introduced to a different language on arrival, communication with the

labor market or authorities is automatically limited and naturally he turns to his ethnic community for support. If the ethnic group has positive attitude toward the labor market, contacts and connections, but most importantly see the Swedish language as the key to the labor market and the society as a whole, the new arrival “easily” get assimilated into the society and enhances his/her chances for job. Self-presentation is of utmost important in seeking job. An employer builds his perceptions from the personality traits, values, abilities and intention (Vijver et al. 2011) that are presented during job interviews or even from resumes and CVs.

The unemployment situation among the African community in Stockholm can be viewed from different perspectives; however our focus is on the cultural values that hinder the Africans from the labor market. Their various societies lay emphasis on certain values, for example for most West Africans much respect is given to authority and would hardly challenge or disrespect the seat of authority. Culturally the African submits to family and community authority by accepting the values and norms that the society portrays (Lassiter, n.d.). Looking at the African from the psychological context some African scholars are of the opinion that “the African way of organizing and cognitively engaging with the world derives from a strongly restrictive indigenous sociocultural milieu, and that this approach to social life and the broader world has been negatively affected by Western cultural influences” Lassiter (n.d.). If this assertion is true then why do the African find it difficult to assimilate into the western culture outside their traditional boundaries?

African Immigrants Unemployment Situation in Stockholm

Ethnic discrimination is very active on the Swedish labor market despite government “Anti-discrimination” labor laws. Carlsson and Rooth (2006) conducted both longitudinal and quantitative studies that proved that “ethnic discrimination exists and is extensive” in the attitude of the general public and in the Swedish labor market. Ethnic discrimination comes in three forms of exclusions: statistical discrimination – where ethnic groups are identified with certain peculiar characteristics or beliefs that jeopardize their chances of being employed. The second is network discrimination – this involves getting on the labor market through personal contacts. This type of employment has become the order of the day as most participants testified to. The third is the institutional discrimination – state policies, programs and laws that unintentionally discriminate against ethnic groups. Though this might not be a true reflection presently, since interviews conducted during this research pointed to a decline, however there is a need for better policies to check the excesses. Immigrants come with different skills and educational qualifications which are not respected or ignored by the Swedish employers. Those who are accepted are required to take internal Swedish courses to elevate them to the “Swedish standard”. This has contributed in no small measure to segregation with the end results being increase in ethnic unemployment. The natives move out from areas where they perceive the ethnic groups are dominating. The situation has driven many qualified and skilled people to self-employment creating ethnic enterprises to provide specific ethnic goods and services such restaurants as mentioned by Åslund and Skans (2010). However it must be noted that the situation for professional or highly skilled labor might differ. Carlsson and Rooth (2006) talked about the negative correlation between “net discrimination and occupational skills level implying there is less discrimination in highly-skilled occupations” in the Swedish labor market. However in many situations employers are not prepared to hire the immigrants on the same salary scale as the natives hence creating a situation where majority of these qualified skilled immigrants are pushed to the low wages jobs like cleaning, where the employers pay them the minimum wage, because qualification are not important. This practice on the Swedish labor market fits the discrimination theory of Becker (1957).

Cultural theories and ethnic values

One of the cultural values - Autonomy-Embeddedness, in Schwartz (2006) theory “specifies how social relations are construed in a culture – whether individuals see themselves as independent from or interdependent with others” Vauclair & Fischer, (2011). Most African immigrants come from a ‘colonized’ society or traditional structured hierarchy where authority is hardly questioned and accept social inequalities as legitimate way of maintaining the status quo and traditional order (Gouveia and Ros, 2000, pp. 26). Vauclair and Fischer (2011) discuss two cultural values – Autonomy and Embeddedness, from Schwartz’s cultural values theory that reveals the dilemma most of the African immigrants find themselves in. That is whether to abandon the embeddedness values – “the importance of social relatedness, the traditional order and the maintenance of the

status quo” and take on the western cultural value of autonomy which emphasizes on “being independent, with the right to pursue one’s own self-fulfillment”.

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Carlson and Rooth (2006) observed that ethnic discrimination accounted for less than one sixth of the native-immigrant unemployment on the Swedish labor market. This does not however eradicate the presence of ethnic discrimination of employers on the Swedish labor market. In fact current economic and global recession has escalated discrimination from the employers against ethnic minorities. EWCO (2005) supported the existence of discrimination on the Swedish labor market which is not only due to human capital factors but structures in government institutions at all level in the labor market. This gives credence to Peroz and Rosca (2007) suggestion of “institutional discrimination”. Such obstacles have influenced many African immigrants to seek self-employment and by so doing employ their fellow countrymen. This means of employment is a quick and effective way of assimilating into the labor market (Borjas, 1986). But even where a fellow African is the employer the tendency to employ a fellow African migrant from different country other than his (employer) is quiet real due to cultural values differences. For example a North African will prefer to employ a fellow North African not only on religious reasons but because they share the same cultural values hence will understand him better than a West African.

Ethnicity Theory

There are four major approaches by which ethnicity can be defined according to Isajiw (1992). These are: (1) ethnicity conceived as a primordial phenomenon, (2) ethnicity conceived as an epiphenomenon, (3) ethnicity conceived as a situational phenomenon, (4) ethnicity conceived as a purely subjective phenomenon. But for the purpose of this research the first approach is applied - the primordialist approach. According to Isajiw (1992) the primordialist approach is the oldest in sociological and anthropological literature and defines ethnicity as “something given, ascribed at birth, deriving from the kin-and-clan-structure of human society, and hence something more or less fixed and permanent”. This definition fits into the perspective in which the African immigrants’ cultural values are considered above. There is a striking relationship between ethnicity and cultural values. One’s cultural values can be said to be derived from his/her ethnicity. If cultural values can structure our way of thinking and can be a blueprint for living then we should not expect to abandon them overnight or in a relative short period because we are in another country. Attitudes that have been practiced over years cannot be wished away just like that. Hence many minority groups find themselves in the two dimensions of attitude that Richard Rudd talked about ---- ‘you either behave as though you are a victim of circumstances, or you take full responsibility for your situation’.

There are empirical evidences to show that some of the African immigrants who decided to take full responsibility of their situation through further education or acquiring skills through cocktail courses available through job centers (Arbetsmarknadsutbildning) were able to secure good jobs with good wages by their tenth year in Sweden. A similar picture is given by Hayfron (1997) when he analyzed the income of immigrants in Norway between the period of 1970 and 1979 to 1990. He observed that the 1970-1979 cohorts had an earnings growth of 27.2% more than the most recent cohorts in 1990. A conclusion can be drawn here that the number of years of residence might increase the chances of the African immigrant getting better employment, but this cannot be entirely true. What was also discovered during this research was that African immigrants were able to increase their earnings after long stay only when they acquire additional education, skills or go into self-employment, i.e. by increasing their human capital. Empirical evidence shows that the rate at which most

private international companies are employing skilled immigrants who can speak English language is providing jobs for the new arrivals and 'downplay' the Swedish language necessity for employment.

METHODOLOGY

Three main groups were identified within the Stockholm region – West Africans, East Africans and North Africans. This selection was done on the basis of wide cultural differences, concentration of the migrant groups in Stockholm, and their economic activities. East African is defined in this sense to include Uganda, Somalia, and Ethiopia. West Africa comprises of Ghana, Nigeria, and Gambia. North Africa includes Algeria, Morocco, and Tunisia. Twenty people were selected from across each geographical region – 5 employed 10 unemployed and 5 self-employed between the ages of 25 – 50 years, making it a total of sixty (60) people. Pegging the age from 25 years was deliberate to avoid second generation immigrants whose perceptions might have been influenced by being born here or migrated at a tender age whose integration or assimilation into the Swedish system might be different from that of the first generation. Moreover their chances of employment are higher and can bias the results of the research. This is emphasized by Storen et al. (2009) that “unemployment rate among first-generation immigrants is normally more than three times higher compared to the rest of the labor force”. Among the ten unemployed people, four were structurally unemployed and six involuntary unemployed. The difference is that the structurally unemployed situation has come about due to lack of skills or experience, and wage bargaining costs (Fabra & Rens, 2011; Peroz & Rosca, 2007) that disadvantage them on the labor market. There was the need therefore to examine their characteristics from three levels – schooling, discrimination and experience (Blackaby et al. 1999). Group 1- were the four structurally unemployed people (total 12); Group -2 were the six involuntary unemployed persons who were either long time lay off workers or have never been employed despite so many years in Sweden (total 18); Group - 3 were the 5 employed people whose successes on the labor market were examined to ascertain if their cultural values contributed to their employment (total 15); Group - 4 were the 5 self-employed people who are employers as well (total 15); Group 5 – was interviews with the Human Resource Manager of AMICA AB and some representatives from the Ministry of Integration. AMICA AB has a large number of immigrant employees including Africans; Group six were church members who were interviewed in a group discussion with varying questions arising out of the answers received from the various groups.

RESULTS, ANALYSIS AND DISCUSSION

It is important to know that no country (especially in Africa) is culturally homogeneous. As such participants might have been influenced by their subcultures based on ethnicity, age, religion, gender, education and social standing in responding to the research questions asked.

Importance of Employment

Being employed, however lowly, has status in all societies; idleness is something that is frowned upon, indicating the person (usually male) cannot meet his domestic and social obligations. It extends to his spiritual and physical health thereby affecting his cultural values. It is widely accepted too that one's pride is very much dented when he has to go begging for food. It emerged during this research that some North African migrants have refused to take social allowances (in the UK for example it will be rare to any Asian at food banks) as it goes against their cultural and religious values. For the immigrants to secure employed they have to have some labor power which might or might not have special characteristics for a specified labor market. Furåker et al (1990) argued that “labor power is a peculiar commodity, which can never be detached from its owner”. This presupposes that a peculiar labor power can never be utilized in the absence of its owner – the person. It is therefore appropriate for the labor market to assess immigrants individually to know the labor power they possess. It is evident that the standard and demand is higher in such a competitive environment, hence the employers prefer the known to the unknown. However when they are ignored or sidestepped just because of uncertainties a vacuum is created which becomes difficult to bridge after some years. The implication is that the very skills or qualifications and experiences that could have been marshaled and absorbed into the system to increase productivity as well as decreasing some socio-economic problems of the immigrants are allowed to multiply.

Role of Education and Work Experience

Sweden is noted for its high literacy level and demand minimum knowledge or education in all sectors of its economic activities. So it is government policy to give some form of education to immigrants before their proper integration into the system. Immigrants are first introduced to the language through the Swedish for Immigrants (SFI) course and through that identify the potentials of the individuals and help them to either focus on their acquired profession, continue in their areas of interest or better still start a new profession. However these procedures are cumbersome to most of the immigrants since they hardly meet the level of the language requirement. Statistics from *Skolverket* (2011) (Ministry of Education) revealed that 102,400 immigrants participated in the language course (SFI) that year nationwide (17,500 in Stockholm). Participants' educational background showed that only four out of ten had at most nine years basic education. While most of the participants were females, 40% were unable to fully stay the duration of the course. This again showed that the "well educated" immigrants do not patronize the SFI course. It is very typical to find university graduates in the same language classroom with elementary school pupils. The result is that they (educated) end up not acquiring the requisite language knowledge for better integration and job opportunity while at the same time the semi-illiterates and illiterates are hardly making headway. One reason almost all respondents agreed on was that there seemed to be a tag on the language course. The immigrants are refused a certain percentage of their social allowance if they refuse to attend classes. Hence most of them go through the course not only unwilling to learn but with a disturbed mind as to their future status in terms of permanent permit. Another disruption is the various cultures grouped in one classroom. The 2011 *Skolverket* statistics gave a typical class composition as Arabs, Somalis, Thailand and Poles. While some are individualistic (Poles), others are egalitarians (Arabs), religious and hierarchical (Arabs & Somalis). The heterogeneous (all immigrants) class expected to accept each other and learn from each other rather turns to divide and regroup the immigrants either consciously or unconsciously from their cultural values. In effect building a good social network right from the grassroots is lost even before they face the larger community. The unattractiveness of the language course to some of the immigrants is that it is not directed to any specific profession so it adds to their "wasted years". They descend further down the social ladder and reduce their self-confidence to play their role in the economic, social and political activities in the country. Some immigrants come with a baggage full of working experiences but cannot get the job because the employer requires experience from the Swedish market or within the EU. So they find themselves in the structural type of unemployment. Since their network is limited and language is still a barrier the best option is to turn to their various ethnic groups for support, advice and help. The adverse effect is that they take too long a time to integrate and understand the social and the market structures. In the meantime his or her relationship to the society becomes collateral. This can be understood from their high-context cultures. The ethnic group will influence his attitude to the society, work, authority, and other ethnic groups (EU countries) who he might be suspicious of receiving better help from the government. And most importantly build mistrust for the job market to the extent that they at times refuse to partake in organized government courses that are intended to help them. It is important to note that in their "transitional period" desperation is the best adjective to describe most of them. They take up any temporal odd jobs to survive and provide for the family back home. So in a theoretical framework frictional unemployment becomes the plight of the immigrants, making "useless" (at least for a period) their education, experiences, skills and talents. Even though they might have skills in the area of attachment, the mere fact that they are Africans; the impression is that they are not competent. This is displayed by the level they are put and the duration they remain there even when they prove themselves. Meanwhile they see their Swedish co-workers with lesser qualifications or skills getting better positions.

The implications are that immigrants lose confidence in their acquired skills and out of frustrations may acquire lesser skills or qualifications that can just put food on the table for them. This widens the social class status and defeats the welfare state ideology. It also adds additional cost to the state, since it would (most likely) cost less to have built upon the individual already acquired knowledge than re-directing him to a new field to acquire a new skill. It is empirically evident that instead of spending time to access the new arrival immigrants to know their capabilities and match their talents to be productive, they are just bundled and classified as an entity that has no human capital. When skills are matched, segregation is reduced and trust is promoted to remove ethnic boundaries. Where networking is encouraged by more interaction between natives and immigrants as well as immigrants and immigrants, job search becomes easier and better communication is facilitated to encourage integration. It is true that minority or majority preferences can never be eradicated entirely but when proper networking and co-existence is established people tend to share with each other.

Language and Discrimination

The Swedish language is a barrier to most immigrants. But it is the key to the employment market. Sometimes a well-intended message or information can be misconstrued due to language barriers. And this is what came out clearly during the interview with the respondents. The language problem was tested during the group interviews with the church members. Respondents were asked to explain simple phrases like “Hur är det? / Hur har du det?” Over 60% could not believe that the two phrases mean the same thing – How are you? Given such a situation the need for better language course cannot be overemphasized. In search of understanding or interpretation to policies and government information immigrants turn to their ethnic communities, who interpret them to the best of their understanding or in relation to their cultural values and end up either confusing or misleading the new arrival. Naturally people feel comfortable with people they can talk to and share common culture. Hence by aligning themselves in this comfortable situation they ignore the Swedish language and continue in the ethnic language; unconsciously rejecting the importance of the Swedish language. So understanding the norms of the labor market depends on the one mentoring the new arrival. The ability to speak the language increases the immigrant's chances to better education since Swedish is the medium of communication. Some level of education always corresponds to some level of social capital that is available to the immigrant. Phung (2011) talked about bonding and bridging social capitals which have direct bearings on the immigrant's integration into the labor market. When language becomes a barrier and creates a bonding social capital, the immigrant is limited to the ethnic community in which he identifies with. In effect he confronts so many limitations and operates within a limited network. But when a bridging social capital is created through effective communication (language) the immigrant is able to access different networks and establish contacts beyond his community which increases his chances of employment. Another outstanding issue where communication is a concern is who was doing the talking? While the North Africans were mostly not prepared to take instructions or directions from a female leader, the West and East Africans could not accept a leader who is far younger than their age. This is more of a cultural issue than personal.

The research set out to investigate how, if any, cultural values contribute to discrimination on the labor market. It is no secret that minorities are discriminated against on the Swedish labor market as pointed out in the European Foundation website (<http://www.eurofound.europa.eu>). It states that “considerable ethnic discrimination exists in the Swedish labor market, which cannot be explained solely by human capital factors, such as education or language skills”. This falls in line with Carlson and Rooth's (2006) observation that ‘every fourth employer discriminates against the minority’ and accounts for about ‘one sixth of the native-immigrant unemployment gap’. So what are these “other factors”? The spontaneous words that come out of the respondents to this question are *Fear* and *Trust*. The Swedes hardly open up to “strange” people. They have perceptions about people from different parts of the world. In fact a random interview on the street as to how Swedes perceive certain people was interesting to listen. They perceived those from Arab North Africa as “violent, impatient, terrorists and temperamental” while the West and East Africans were “low educated, uncivilized, naïve, ignorant”. The respondents were of the view that it is rather the Swedish cultural values that are obstacles to their employment chances and not their cultural values.

The implication here is that such stand of the natives give value to the three different mechanism of exclusion Rydgren (2004) posited exist in the Swedish labor market – “statistical discrimination (stereotypical thinking), network effects (due to separate, ethnically homogeneous networks) and institutional discrimination”. When a society creates such defined ways of discrimination against minorities, it obviously sieves off unknown potentials that might have contributed positively to the economic and socio-political development of the country. Prejudiced labor markets, no matter what form they take, discourage its human capital resources which affect not only the minority but entire economic activities. The dangerous part of it is that such discrimination might be taking place unconsciously or from the blind side of policy makers. Rydgren (2004) made a similar conclusion when he argued that “actors in gatekeeper positions often discriminate against migrants without realizing it and state programs and legislation sometimes have unintended consequences which may lead to institutional discrimination”. While it would be wrong to say that the Swedish labor market dislikes or does not accommodate diversity, it is equally true that there are limitations for the immigrants as to how far they can impact the workplace with their knowledge.

Those in private business had a different view about discrimination. They all agreed that registering a company in Sweden is not difficult at all so long as you meet the requirements. However the problems start as

soon as you start operations. Respondents were of the view that they are seen as a group of people or businessmen who are not willing to operate within the laws. Hence the law enforcement agencies are constantly on them compared to the native businessmen. They are controlled from all angles, tax, salary, employees, etc. on almost daily basis. At the same time it is not easy for them to win private contracts let alone government contracts.

An Employer's View

To understand the hindrance of culture values to the African immigrant unemployment chances in Stockholm, a former Managing Director (Swedish) who established a service company on the back of African immigrants especially was interviewed to access his experience on this matter of cultural values (he preferred to remain anonymous). He said he does not regret employing mostly immigrants from all over the world because the company became a success mainly due to the diversity of cultures that were employed. Touching on the African immigrants he said what he observed was the extra-ordinary hard working culture they have. The African immigrant needs just motivation, respect for his values, appreciation, recognition of his social status and standings. He said they were more dedicated and work with love not to earn money but to protect the company. A major observation he realized was that work got done effectively when their leader is of the same ethnic group. They listened more to their own ethnic man than someone from another culture. He said there was great uplift of the company when he employed an African as Personnel Manager and a Liaison resource person between the immigrants and management. This Personnel Manager understood the humor, problems and expectations of the workers because he belongs to them and was also affected by the same socio-political conditions existing not only within the company but the Swedish system in general. This created a very conducive healthy atmosphere because communication became a two-way channel, and management understood their grievances. He said solidarity between these people should never be underestimated by employees. They have solidarity for each other and were prepared to lose their jobs whenever they felt one of them had been unjustly treated. Because they believe it could be their turn to lose their jobs next time. He narrated a situation where one of the foremen lost his mother back home and wanted to travel for the burial. He (the employee) requested for 4 weeks holidays to enable him travel, but the Swedish labor law then allowed only 10 days if the worker have exhausted his normal annual holidays. So when he (MD) refused and made reference to the law, the Personnel Manager whom he thought could understand the situation from management perspective, since the foreman's workplace was very strategic and more so about to go for tender, he (PM) flared and accused him of being insensitive but only thinking of his profit. The PM left the office in fury and that is when he knew something had gone extremely wrong. The next day the PM threaten to resign because he cannot explain to his people why he (MD) could not understand and sympathized with somebody who for 15 years had not seen their mother and could not be allowed to attend the burial to pay his last respect. He (PM) looked at him in the face and said "you are heartless".

The African immigrants do not understand or want rules and regulations to be applied to the letter. They are of the opinion that no matter the offence, human nature should be factored in to limit the punishment. He believes this is a cultural value but can have a negative effect if exercised very much. Another unique cultural value he observed was the extent to which they could work without asking for extra wage, because they perceived the PM who was an African as their brother and as such they were working for him and not the company.

What he considered as the negative sides of the African immigrants was their unwillingness to follow laid down instructions. The reason was not that they were illiterates but simply had no desire to read. It is a culture issue. They prefer verbal instructions to written one because with verbal they take it as authority or command and follow it. The African immigrant he posited has a perceived mind that could equal prejudiced mentally, hence any caution, warning, rebuke or correction from a Swede could be easily considered racist. Most of the African immigrants dwell on their ethnic men for explanations and interpretations of the law and in times of crisis would prefer to come to the negotiating table with somebody from his ethnic group even if he or she is good in the Swedish language. And unless the accompanying ethnic man agrees to whatever is being discussed there would be no compromise. To him (MD) it shows the trust and respect they give to the views of their people. However he (MD) is of the opinion that most of the African immigrants need further education on how the Swedish society and labor market functions for them to appreciate the system. He thinks it should be incorporated in their language studies, because at the end of day the African immigrant wants to work to make a

decent living and not to insult his or her pride with or kinds of social allowances. He (MD) is prepared to employ and work with the African immigrant community again should the need arise. “They are peaceful and hardworking if you understand their mindset and respect their cultural values” he concluded.

CONCLUSIONS

The impact of culture on unemployment is evident in language across all the ethnic groups. The limitations language puts on minority job seekers depends on their ability to communicate in the Swedish language. Immigrants from Anglophone countries somehow have advantage over the others since there are so many similarities of words and many Swedes can understand and communicate in English. In their research paper “Does Culture Affect Unemployment? Evidence from the Röstigraben” Brugger et al (2009) made an empirical statement to confirm that indeed language as a culture affects people’s attitude to work. A similar situation was observed by Phung (2011) among the immigrants in UK. He observed that “even among refugees and among asylum seekers, labor market experiences vary markedly”. Language limits socialization and integration and creates segregation which is dangerous to developing a vibrant national social life. It unconsciously promotes racism, since people who hardly integrate with each other live with presumptions and prejudices that might be unfounded yet dictates their behaviors to each other.

The research mainly agreed on the numerous ways of discrimination that previous researchers have identified. Discrimination is broadly referred to here as the act of favoring one person over the other due to, for example, gender, race, color, ethnic background, nationality, religion or belief and age. It is also possible to be discriminated against by government as well as private policies. Some of these forms of discriminations are statistical discrimination and institutional discrimination. Rydgren (2004) and Carlson & Rooth (2006) have researched extensively on discrimination on the Swedish labor market assigning various reasons but did not give cultural values any prominence. However this research has established that cultural values could be used to discriminate against some ethnic groups. One of the empirical results showed that employers discriminated against ethnic Moslems because their daily prayers disturb work schedules. Most of the ethnic groups are interdependent and uphold group success as evident of pride, hence do not strive individually to achieve greater heights by way of employment. So when new arrival immigrants find their way into the segregated communities they align themselves with the achievements associated with the ethnic group and redefine their existence accordingly. This assertion agrees with Schwartz (1999) observation that “a cultural emphasis on group well-being is likely to be expressed in more cooperative economic and legal systems”.

Lastly what seems to be the more convenient way of pushing the minority out of the job market is by sorting applicants by name and advertising vacant jobs through networks. These have become the easiest ways for most employers on the Swedish labor market. By identifying applicants to a job by names the employer is able to short list the natives and avoid public condemnation. And by advertising vacant jobs through networks, the probability of the immigrant getting access to this information is limited because of limited networks. Bäcklund’s (2002) research revealed that “one-third of all vacant jobs are not overtly advertised. The research established African immigrants will continue to suffer discrimination on the labor market if they do not increase their social networks with the natives.

POLICY RECOMMENDATIONS

- The time taken for immigrants to acquire resident and work permits should be reduced to the barest minimum, since it affects their health, both mentally and physically and reduces their employment chances as pointed out by Blackaby et al. (1999) in their research.
- The state should encourage the practice of commodification as a means of reducing unemployment among the minorities by way of subsidizing the salary of the employees as well as reducing the social cost of the employer.
- Identify the labor power of the immigrants and diversify them to related areas that can be economically viable for the economy as well as helpful for the individuals.

- Labor market intervention policies should take into consideration the status and conditions of the immigrants that can encourage companies to open their doors for training and promote cooperation and understanding of the labor market system.
- The SFI course should be structured according to individual capabilities and abilities to accelerate the period of integration and the possibility of acquiring jobs as soon as practicable.
- The communities which are the first point of call for the immigrants should have effective inter-communal (ethnic) activities and programs that are not only for classroom purposes but geared toward bridging social capital and discouraging segregation.
- Perceived and prejudiced attitudes and beliefs should give way to openness, tolerance, respect and cooperation from each other.
- The state needs to strengthen the ethnic and racial discrimination laws and regulations so that companies are severely punished when they discriminate against minorities.
- The government should continue to provide information in the languages that are easily accessible by the immigrants and provide resources to encourage them to read and listen to government and other social programs.
- The immigrants should be helped to put behind them the conservative mentality by introducing them to the “new social order”.
- The state should help the immigrants to build networks that can contribute positively to their social and employment situations.
- The Swedish media should be circumspect in their reportage on immigrants. They should stop overemphasizing the mistakes or even criminal activities of the Africans and help build bridges and understanding between the natives and the Africans.

LIMITATIONS OF THE RESEARCH

The African immigrants cultural values in relation to unemployment is a complex problem and cannot therefore be viewed from a parochial angle but rather needs diverse and deeper study to unearth various strategies that can be related to other immigrants from different continents to achieve solutions. Hence this research does not claim any authority in this area but intends to highlight some of these problems and put them out for discussions and encourage further research and deeper discussions. There are not many materials in this area of how African cultural values can impede their chances on the Swedish labor market. Earlier researchers have focused mainly on language, discrimination, education and skills as the major causes of the African's unemployment. This research focused on only three regions of African immigrants in Stockholm with 20 from each region. This is a very small representation to allow any concrete deductions to be made on the entire African community in Stockholm.

Cultural values are difficult to separate from a person's normal behavior and at times could be interchanged. Hence a long and comprehensive study is necessary to separate the two but this was outside the remit of this research. The research did not extend to various courses above the SFI level which the government considers as some form of employment. The Swedish employment pattern is not dynamic in relation to minority groups. Hence to understand the correlation of unemployment between African community and the labor market a wider interview and research should be done. For example many international companies are employing immigrants who can speak English and little Swedish. Discrimination has so many forms. Ethnic discrimination is very much in existence, however there is a need to understand why it exists. People are now separated by names during job applications which this research could not investigate to understand how extensive it is and its effect on the African community.

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BUSINESS PROCESS ORIENTATION IN CROATIAN COMPANIES

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ABSTRACT

Business Process Orientation (BPO) is a business organization concept that is being adopted by companies worldwide. It has been shown in previous studies that the companies which have reached higher BPO maturity level consistently outperform those that have not reached them. The aim of this paper is to provide a basic understanding of BPO concept and BPO maturity model. Besides that the paper presents the state of BPO in Croatia that has been captured with a study conducted in 2013. Based on the results some practical implications and guidelines for managers are given.

Keywords: Business Process Management, Business Process Orientation, business process maturity, empirical research, Croatia

INTRODUCTION

Competition in many industries has been focused mainly upon strategic assets and on the ability to deploy these assets. Competition in today's global economy is now based upon capabilities or complex bundles of skills and accumulated knowledge, exercised through organizational processes (McCormack and Johnson, 2001). Owing to this new capabilities business approach many organizations are now viewing processes as strategic assets. Under this perspective, organizations are no longer viewed as a collection of functional areas, but as a combination of highly integrated processes. Thus, the concept of BPO is becoming increasingly important. Companies wanting to improve their performance and stay competitive are introducing and adopting a process view of business in order to enhance their overall performance. BPO can slim down operational costs, promote customer relations through satisfying customer needs better and increase employee satisfaction through harnessing the benefits available in organizational knowledge (Vlahović, Milanović Glavan, Škrinjar, 2010). As this is a complex process done over a long period of time, companies can attain various degrees of BPO acceptance through adjustments of their business processes.

Over the past few years methodologies for analyzing the maturity state of BPO have been developed. Maturity model consists of a number of stages through which companies evolve as they increase the adoption of process oriented practices (Zairi, 1997). But, the fact is that the most of the literature on BPO has been in the popular press and lacks research or an empirical focus. Because of that reason an empirical research, presented in this paper was carried out in Croatia in 2013. The aim was to investigate understanding of the process view and process maturity levels of Croatian companies. The paper is structured as follows. First, in the introduction part, the background and purpose of the conducted research is explained. The second section describes the theoretical frame of reference, which aims to provide a basic understanding of BPO construct. In the third section the concept of BPO is studied on four maturity levels. In the fourth section an empirical study is described and the results of the analysis are shown. Finally, the paper ends with some concluding remarks about limitations and contributions of this study and the possibilities for the future research.

THEORETICAL BACKGROUND ON BUSINESS PROCESS ORIENTATION CONSTRUCT

Organizations are continually under competitive pressures and forced to re-evaluate their business models and underline business processes (Škrinjar, Indihar Štemberger, Hernaus, 2007). Process is defined as an approach for converting inputs into outputs. Business processes represent a core of the functioning of an organization because the company primarily consists of processes, not products or services. In other words, managing a business means managing its processes (McCormack and Johnson, 2001). Business Process Management (BPM) refers to a systematic, structured approach to analyze, improve, control and manage processes with the aim of improving the quality of products and services (Khan, 2003). BPM is intended to align the business processes with strategic objectives and customers' needs, but requires a change in a company's emphasis from functional to process orientation. The functional approach creates barriers to achieving customer satisfaction (Zairi, 1997) and that is why today's companies, in order to stay competitive, become more and more process oriented. BPO is interpreted as the organizational effort to make business processes the platform for organizational structure and strategic planning. A process oriented organization is referred as process enterprise or as process focused organization. Although the definitions of the BPO vary, in this paper the following definition of process orientation is adopted: an organization that emphasizes processes as opposed to hierarchies with a special emphasis on outcomes and customer satisfaction (McCormack and Johnson, 2001). The extensive literature and former research suggest that organizations can enhance their performance by becoming process oriented. Furthermore, the more business process oriented an organization is, the better it performs both from the perspective of the employees as well from an overall perspective.

There are many interpretations of what BPO entails and the conceptualizations are on one hand partially overlapping and on the other hand interpret the intricacies of BPO quite differently based on the tradition the authors belong to. While each interpretation stresses several important points it also neglects other ones. Based on extensive literature review nine different viewpoints of BPO are synthesized into a comprehensive BPO model that takes into account majority of domains, frequently mentioned in literature. In order to analyze and improve BPO companies need to take the following domains (elements) into account (Škrinjar, Bosilj Vukšić, Indihar Štemberger, 2010):

- (1) Strategic view,
- (2) Process identification and documentation,
- (3) Process measurement and management,
- (4) Process oriented organizational structure,
- (5) Human resources management,
- (6) Process oriented organizational culture,
- (7) Market orientation,
- (8) Supplier perspective,
- (9) Process oriented information technology.

Next, the most important aspects of all the elements of BPO will be presented.

Strategic View

Two dominant aspects of strategic view seem to be critical (Škrinjar, Bosilj Vukšić, Indihar Štemberger, 2010):

- (1) The alignment of business processes with organization's strategy possibly achieved by linking process goals to the organization goals. A well-developed strategy enables optimal definition, planning and execution of business processes that implement that strategy.
- (2) Active support and involvement of top management in the activities of implementing the principles of BPO into the functioning of the organization.

Process Identification And Documentation

Excellent knowledge and understanding of internal processes is a prerequisite of process orientation. Organizations need to understand how processes work, where they are being executed and how they interconnect. Additionally, process documentation enables and catalyzes process improvements, helps employees in understanding how end-to-end processes really work and what their role in the process is.

Process Measurement And Management

Management and measurement are closely tied. What is not measured cannot be managed. Performance measurement is a prerequisite for process redesign as it enables the alignment of organization's processes and strategy. Appropriate performance indicators encourage employees to act in alignment with the strategic goals.

Process Oriented Organizational Structure

Organizational structure describes the predominating configuration of activities and tasks in organization. Process orientation does not require a complete process organizational structure as it has some disadvantages as well. The final goal should not be to replace vertical structures with horizontal ones, but to find a way to intertwine the advantages of both – specialization and expertise of functional structures with responsiveness and adaptability of process structures.

Human Resources Management

Human resources management is a wide management discipline that deals with many aspects of managing people. With regard to process orientation, the most important aspect of people management is strategic people management that focuses on the practices connected to training and educating employees to align employee skills and knowledge with the business strategy.

Process Oriented Organizational Culture

Changing organization to process oriented represents a vast change in the way business is conducted. In that sense, organizational culture plays an important role in organization's ability to change. Key values and aspects of organizational culture that are most often cited in literature with regard to implementing process orientation are (Hernaus, Pejić Bach, Bosilj Vukšić, 2012): shared vision and purpose, openness and cooperation, creativity and positive attitude of employees, usage of appropriate process terminology, employee empowerment and their inclusion in decision making, flexibility, goal orientation, employees' understanding that they work for end customers.

Market Orientation

The basic goal of any process is creating value for customers (external or internal). In that regard, understanding customer needs and wishes is inextricably linked to process orientation. Organizations need to understand its customers' preferences in order to design appropriate processes that will be able to supply the output that will satisfy these preferences. Knowing and understanding customers is only one part of market orientation. Organizations also need to know and understand their competition. Appropriate strategies and the underlying processes that execute them can only be set if organization combines knowledge about its customers and its competitors.

Supplier Perspective

Tight cooperation with suppliers is also one of the key elements of process orientation as organization's processes can span outside its borders and are tightly connected to suppliers' processes. In that regard process optimization cannot be optimal if suppliers' processes are disregarded. Clearly, organization does not have an

impact on suppliers' processes if the cooperation is transaction based. On the other hand, forming long-term relationships with its suppliers offers more possibilities for a joint and coordinated redesign of processes that span several organizations (Zairi, 1997).

Process Oriented Information Technology

The role of information technology (IT) in process redesign has long been stressed as one of the more important aspect of redesign efforts. Combination of process redesign and utilization of appropriate IT support can drastically improve business processes. Even though many authors stress the importance of IT in redesign efforts, its role can be very different at different stages of the redesign (Kohlbacher and Gruenwald, 2011).

BUSINESS PROCESS ORIENTATION MATURITY MODEL

It should be noted that the concept of process orientation is not bipolar. Rather, companies can employ different levels of process orientation. The levels of process orientation are often presented by a process maturity concept. In the current business environment, there is no scarcity of process maturity models (Zairi, 1997). They serve as reference models of the stages that organizations go through as they move from being immature to mature in their process orientation. The business process maturity models are based on concepts developed by researchers over the past two decades and imply that a process has a lifecycle that is assessed by the extent to which the processes are explicitly defined, managed, measured and controlled.

For the purpose of this research, the BPO maturity model was readjusted from McCormack and Johnson (2001). The BPO construct describes a four-step pathway for systematically advancing business processes along the maturity continuum (Ad Hoc, Defined, Linked, and Integrated level). Each step builds on the work of the previous steps to apply improvement strategies that are appropriate for the current maturity level. The following definitions are provided for the stages that an organization goes through when becoming business process oriented:

Ad Hoc: The processes are unstructured and ill-defined. Process measures are not in place and the jobs and organizational structures are based upon traditional functions, not horizontal processes.

Defined: The basic processes are defined and documented and are available in flow diagrams. Changes to these processes must now undergo a formal procedure. Jobs and organizational structures include a process aspect, and yet remain basically functional. Representatives from functional areas (sales, manufacturing, etc.) have regular meetings to coordinate with each other, but only as representatives of their traditional functions.

Linked: The breakthrough level. Managers employ process management with strategic intent and results. Broad process jobs and structures are put in place outside the traditional functions.

Integrated: The company, its vendors and suppliers, take cooperation to the process level. Organizational structures and jobs are based on processes, and traditional functions begin to be equal or sometimes subordinate to the process ones. Process measures and management systems are deeply imbedded in the organization (Vlahović, Milanović Glavan, Škrinjar, 2010).

SURVEY OF CROATIAN COMPANIES

An empirical research was carried out in 2013. The main goal was to assess the current state of BPO maturity in Croatian companies. In order to carry out the empirical study a questionnaire was developed. It contained 60 questions regarding BPO characteristics. The questions were distributed across the nine domains (elements) presented in the theoretical part of the paper: Strategic view (5 questions), Process identification and documentation (6 questions), Process measurement and management (10 questions), Process oriented organizational structure (7 questions), Human resources management (5 questions), Process oriented organizational culture (6 questions), Market orientation (7 questions), Supplier perspective (3 questions), Process oriented information technology (11 questions). Each question describes a particular BPO characteristic and/or business practice considered important within each domain. The degree of presence of these characteristics in the organization is measured on a 7 point Likert scale (1=Strongly disagree, 2=Disagree, 3= Disagree more than agree, 4=Neither agree or disagree, 5=Agree more than disagree, 6=Agree, 7 =Strongly Agree).

The main source of data about Croatian companies was the database of The Institute for Business Intelligence and the questionnaire was sent randomly to the 1200 companies. The questionnaire was addressed to the CEOs or the chairpersons of the companies who were instructed to fill out the questionnaire themselves or give it to a competent person within the organization. 127 completed questionnaires were returned to the research group (which accounts for 10.58% response rate).

Company size is determined by the number of employees. In the resulting data set 40 companies have between 1 and 50 employees, 44 companies have between 50 and 249 employees and 43 companies have 250 or more employees.

First, the data gathered from the Croatian national sample was analyzed using descriptive statistics. The compound measure of BPO construct was calculated, which revealed the overall state of business process orientation. This was done by calculating the average grade for each domain of the questionnaire. Based on the sample the compound measure of the BPO in Croatia is 4.84.

Second, in order to identify the hierarchical relationship between the groupings a set of cluster analysis procedures was conducted using Statistical Package for Social Sciences (SPSS). Cluster analysis, also denominated as “segmentation analysis” or “taxonomic analysis”, aims to identify subgroups of homogeneous cases in a population. In this sense, the cluster analysis can identify a set of groups that minimizes the internal variation and maximizes the variation between groups (Garson, 2012). Aiming to prepare the dataset for the cluster analysis, based on the sum of scores of all variables from each grouping it was generated a new variable for each grouping. Later, a variable Maturity Score was generated by summing all new indicators generated for each grouping representing the maturity score for each one of the 127 cases of the sample. The TwoStep cluster analysis was then conducted. The first step of the two-step procedure is formation of preclusters. The goal of preclustering is to reduce the size of the matrix that contains distances between all possible pairs of cases. Preclusters are just clusters of the original cases that are used in place of the raw data in the hierarchical clustering. As a case is read, the algorithm decides, based on a distance measure, if the current case should be merged with a previously formed precluster or starts a new precluster. When preclustering is complete, all cases in the same precluster are treated as a single entity. The size of the distance matrix is no longer dependent on the number of cases but on the number of preclusters. In the first step the maturity score was considered as a continuous variable and a fixed number of 4 clusters were defined – each representing one maturity level of business process orientation maturity model. As a second step, the hierarchical grouping is applied to the preclusters. In this second step, SPSS uses the standard hierarchical clustering algorithm on the preclusters. Forming clusters hierarchically lets you explore a range of solutions with different numbers of clusters. The 127 cases in the sample were classified considering its positions in each of the four clusters, i.e. in each of the four maturity. Due to this step, difference in Likert scale of the questionnaire and the number of maturity levels, values were mapped in order to assess the maturity level for each data set record (Table 1).

Table 1. BPO maturity level mapping

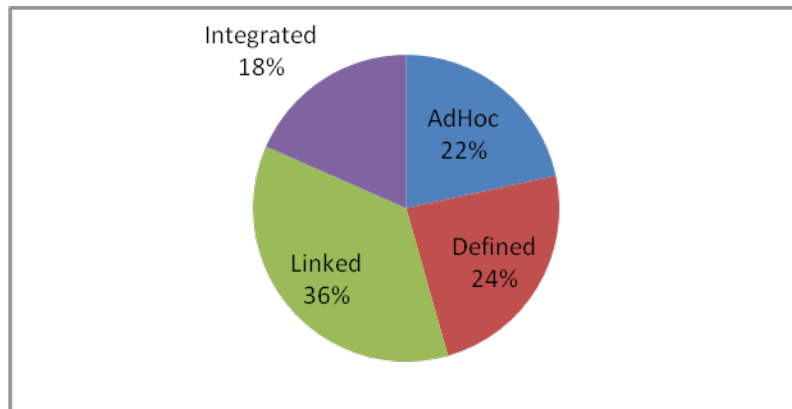
AdHoc	1,0-3,9
Defined	4,0-4,8
Linked	4,9-5,6
Integrated	5,7-7,0

Source: Author’s calculation

Companies with BPO value between 1,0 and 3,9 fall into level 1 of BPO maturity (21,6% companies from the sample). Companies with BPO value between 4,0 and 4,8 fall into level 2 of BPO maturity (24,0% companies from the sample). Companies with BPO value between 4,9 and 5,6 fall into level 3 of BPO maturity (36,0% companies from the sample). Companies with BPO value between 5,7 and 7,0 fall into level 4 of BPO maturity (18,4% companies from the sample).

Frequency of the companies in the sample by BPO maturity is shown in Figure 1.

Figure 1 Frequency of companies in the sample by BPO maturity level



Source: Author's calculation

Since the compound measure of the BPO is 4,84 it can be concluded that Croatian companies are between the Defined and Linked stage of BPO maturity. Companies with that kind of level of BPO maturity have well defined and documented processes, but don't realize that these business processes have to inter connect.

In order to advance to the higher, Linked level of BPO maturity managers of Croatian companies have to improve following BPO elements: information technology, process organizational culture, people management and process measurement and management. In the literature that elements are called key turning points. A key turning point is a component of BPM that stabilizes within an organization and leads to the next maturity level (McCormack et al., 2009). When establishing BPO it is very important to clearly define the roles and responsibilities of employees executing processes. In fact this turning point (people management) is one of the things that company must do, in order to reach the highest level of BPO. Usually when adopting process principles, companies expand the responsibilities of their employees thereby enabling them to perform more multidimensional tasks and take more decisions which can result in fewer handoffs and shorter process cycle. Clear definition of roles is key in this process and successful completion of this task is one (not the only one) of the conditions for reaching higher level of maturity. Another turning point acting as a prerequisite for advancing from Defined level to Linked level lies in process measurement and management dimension. After company has defined its performance measures, defined target values and started measuring them it is very important to give feedback to its employees and keep them informed on the process efficiency and effectiveness. Only by having this information loop can employees readjust their work in accordance with target performance. Next turning point is information technology. Companies have to use business process modeling tools in order to advance to the Linked stage of BPO maturity. Final turning point that will be pointed out has been somewhat neglected in literature. Appropriate organizational culture is also important in adopting process paradigm. Employees must understand and see the functioning of a company as a set of processes. Traditional functional mindset, where people see functional departments, organizational units and strong hierarchy and where turf wars are frequent and ubiquitous will hinder the development of process orientation and trap company at Defined level at best. Companies must therefore educate employees on benefits of BPO and get them to understand how new way of working will also be beneficial to them.

CONCLUSION AND FUTURE WORK

The main goal of this study was to determine the state of BPO adoption in Croatian companies. The data from the empirical study that has been subjected to relevant statistical techniques has shown that the Croatian companies are between the Defined and Linked level of BPO maturity.

The contribution of this paper is two-fold. First BPO elements were systemized and analyzed in order to propose BPO construct and its constituting elements. This BPO construct can serve managers as a road map of

specific steps that will lead to the BPM maturation of that specific enterprise. Companies will continue looking for new strategies for survival in tough times. Therefore, BPM must evolve from a mere methodology into a holistic management discipline that takes an integrated approach to the organization and its business as a whole. Second, the empirical results of this research outline the most prominent issues and challenges faced by companies that have made the choice to implement BPM. Hence, these results have many practical implications for managers of the Croatian companies. They need to examine their current managerial practices, use of information technology, organizational culture and communication, and measurement practice. According to the results of the survey, it is of a great importance for the Croatian companies to increase the efforts in stimulating these four turning points in order to advance to the higher level of BPO maturity.

It is also significant to mention that there are few limitations connected with this research. First, the research question was approached with a survey design. This means that the conclusions of this research are subject to the general weaknesses of correlational studies. A way to improve the reliability of the results would be to increase the sample size of a survey in a future research. Since this survey is limited to respondents from Croatian companies a future research can be done in few other countries to develop a methodology that could be used to compare BPO maturity levels and to detect BPO key turning points in different countries.

In spite of the boundaries set by these limitations, these findings offer important implications for research and practice. Discovered knowledge about turning points can be used as a set of practical guidelines for any Croatian company that strives to achieve more efficient business processes and the results of the survey presented in this paper could provide a solid basis for further research in the field it addresses.

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CRITICALLY APPRAISING THE PURPOSE OF THE MODERN BUSINESS ORGANISATION

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ABSTRACT

This paper revisits and reopens the ontological question of what a business organisation exists for. Moving from a Critical Management Studies perspective, this paper employs a dialectical approach to comprehend why a business exists in the first place, thereby rekindling the argument on the original purpose of the business organisation. The paper suggests that our current outlook on the purpose of a business organisation is shaped by the central tenets of Western, 20th Century Capitalism. The paper proposes that a shift in emphasis is needed for business organisations to meet the demands of the modern business environment

Keywords: Purpose of business, western capitalism, corporate citizenship

INTRODUCTION

This paper proposes that the fundamental purpose of business in society has been eroded, manipulated and re-interpreted to such an extent that the original intent has been lost. It seems that in the sphere of management, the original intention behind the early pioneers (both industrialists and scholars alike) has been manipulated over time. Things have been added, important bits have conveniently been ‘left behind’, and assumptions have been made that suited a particular situation at a particular point in time... All of this has led to a situation where our current conception of management theory is based on authoritative, first-hand accounts of empirical evidence that suits these ‘new’ theories.

This paper adopts a Critical-dialectic approach to re-open the debate surrounding the ontological issue on the reason for existence of the business organisation. Central to this approach is engagement with different points of view as a conversational debate to establish reality through reasoned argument (Corbett & Connors, 1999). This paper is epistemologically framed within the Critical Management Studies (CMS) movement, which adopts a persuasive discourse challenging the underlying assumptions of capitalism (Sulkowski, 2013). CMS therefore confronts the ‘objective’ and ‘natural’ status of business organisations, institutional order and management power (Alvesson & Willmott, 1992). Many of the ideas put forward in this paper have existed for some time. Organisations are, from time-to-time questioned in the literature (Hiller, 2012). However looking at these issues from a Critical perspective causes one to think about these issues differently and in so doing leads one to an alternative understanding of the basic ontological foundations of Business Management as an academic discipline.

THE PURPOSE OF THE ORGANISATION

The ability to trade is a precursor to the accumulation of wealth and procurement of scarce resources. Mankind’s ability to trade is a direct response to the basic economic problem of how we provide for the material well-being of society. It is this problem that makes society (Heilbroner, 1975):

- to organise systems that will ensure production of goods and services for survival of society (problem of production) and
- consider how this production will be distributed (problem of distribution)

The business organisation addresses the problem of production, as it is a societal system concerned with the production of goods and services for the survival and advancement of society. The problem of distribution is also

addressed by the business organisation, as it apportions this production and thereby ensures the material replenishment of society. A business organisation is a societal construct aimed at serving and advancing society. The outputs of business organisations are distributed as the business organisation deems fit, taking into account the forces of supply and demand. The return the business organisation realises for its efforts in terms of production and distribution is profit. These profits should be ploughed back into the business organisation to ensure longevity in terms of production and distribution. This view leads one to reach the following conclusion: That the business organisation is a part of society and exists to serve and advance society.

During the Industrial Revolution, the precursor to today's large corporation developed (Wren & Bedeian, 2009), as answers were sought to how this new phenomenon was to be administered. The sudden growth experienced by industry made the organisation far too large to administer. Company law became the foundation by which business organisations were controlled (Handy, 2002). Attracting capital in exchange for shares elevated the business organisation to a mechanism of capitalism rather than a servant of society. The notion that the business organisation is accountable, first and foremost, to the owners, needs closer inspection. The idea that those who provide finance for a business are the owners of the business is an antiquated notion that originated in an era when the owner genuinely was the one that put up the finances (Platts, 1997; Handy, 2002). In the early days of industrialisation, the financier and the owner and the chief executive were the same person. However, legally speaking, the financiers are also the owners of the business. The scope and complexity of the modern business organisation necessitates a rethink of this notion, as the CEO is not seen automatically as an owner (unless they own shares), but the law still views shareholders as owners (Handy, 2002). Traditionally business organisation is a piece of property, subject to the laws of property and ownership (Handy, 2002). But is it still meaningful to view the business in this light? In the aftermath of the Industrial Revolution, in an age when corporate law rose to prominence, and a business consisted of a set of tangible assets, this notion rang true. However, value within the context of the modern business organisation resides in intellectual property such as expertise, skills, brands, and patents. It seems illogical that this intellectual property should be at the disposal of the financiers to dictate as they deem fit (Handy, 2002).

The above highlights two instances that can be encountered in the modern business organisation. Business organisations, whilst acting within the parameters of the law, are seemingly exempt from the principles of justice and ethos. As the discussion shows, just because something is legal, it is not always just or ethical (Handy, 2002). This is a big contradiction, as western countries are obsessed with democracy, yet one of their social constructs is governed as a dictatorship.

Should one not revisit the very nature of the business organisation before one gets lost in the debates around ownership, property and profits? According to political philosopher Michael Oakeshott, one needs to distinguish between two types of association within society: civic association and enterprise association (Oakeshott, 1974). For Oakeshott, civic association implies the attainment of an ideal that is larger than any particular interest. Members of a civil association have no common goal; they are related in their recognition of an ideal that delimits the acceptable means they employ in pursuing their own, diverse ends (Franco, 2004). Enterprise association implies that individuals are related by their agreement to cooperate in pursuing some substantive end (Franco, 2004; Griseri, 2013). Within the confines of a western capitalist system, it would seem as though the modern business organisation is an enterprise association. The question now arises: For the business organisation, to what substantive end has the agreement been forged?

The traditional view of the business organisation insists that it exists for the primary purpose of realising a sustained long term profit, thereby maximising return on investment for shareholders and investors (Ahmed & Machold, 2004). First year textbooks resound with this sentiment (Smit & Cronje, 2004; Bennett & Nieman, 2005), it is drummed into first year commerce students and remains a central tenet in commerce students' conception of a business organisation. Thus, in terms of Oakeshott's notion of enterprise association, the substantive end that is being pursued is profit. Western capitalism has also disseminated the notion, fuelled in part by Milton Friedman (Friedman, 1970), that the business is responsible to its shareholders, and that profit maximisation is the primary purpose of business. This is a short sighted point of view as the modern business environment suggests that a higher purpose exists, and profit maximisation is a means to an end, as opposed to an end in itself (Ali, Al-Aali & Al-Owaihham, 2013; Drucker, 1942 & 1954; Gummesson, 2007, 2008; Hiller, 2012).

For the pioneering industrialists of the 19th and early 20th century, the business organisation helped create a better society for all. In the USA, railroad magnates linked the coasts of the USA, making travel fast and economical. Carnegie transformed steel from an expensive material into an inexpensive commodity, with a wider range of applications which could benefit a wider segment of society (Wren & Bedeian, 2009). If one subscribes to this point of view, then one views a business organisation as a servant of society. The purpose of the business organisation is thus to act in a fashion that constantly seeks to improve the quality of life for the individuals that constitute this society (Platts, 1997). Yet, in order to do so, the business needs to rely on the basic economic principle of cost minimization and utility maximisation. The financial gains of the business are, by this thinking, a tool which serves to fulfil the primary purpose of serving society. This thinking leaves little room for concepts such as shareholders' return on investment as the primary purpose of the business. The primary business decision is not to maximise shareholder wealth, but instead to maximise societal benefit (Ghoshal, 2005). In the extreme, this point of view challenges Friedman's notion that the primary responsibility of the business is toward its' shareholders. If the business organisation exists for the betterment of society and to aspire to a better life for the members of society, then the notion of shareholder interest being of primary importance is null and void. The primary interest is now that of betterment of society and being in a position to give those in this society a better quality of life.

In terms of the problems of production and distribution, the problem of production is addressed in its' purest form using this pattern of thinking, namely, to produce goods and services society really needs and wants, not what society is lead to believe its wants and needs. In terms of the problem of distribution, the material replenishment of society will become less inequitable, as profits are utilised for the development of the business rather than for dividend pay-outs to shareholders. In this way, societal interests take precedence over the interests of shareholders.

Adopting the view that organisations exist for the betterment of society and thus contribute to a better life for all makes debates on Social Responsibility, Corporate Citizenship and Corporate Governance moot points. If society is the focal point of the business endeavour, acting in the best interest those affected by the business is implicit (Ahmed & Machold, 2004). Business organisations exist as part of a society and in the interest of this society (Platts, 1997; Ahmed & Machold, 2004; Griseri, 2013). As such, socially responsible conduct is a duty the business organisation needs to be held accountable for (Veludo-de-Oliveira, 2006). If one's primary concern is that of trying to bring about an increased quality of life for members of the society you serve, one will not embark on endeavours that take advantage of and exploit the very members you are trying to better. This train of thought embraces the corporate philanthropy of the pioneering industrialists. The argument does not suggest that focussing on profitability is equal to exploitation. Instead, it suggests that chasing profit *at all cost* could lead to practices that are exploitative in nature. At the end of the day, current management textbooks seem to present a skewed picture concerning the aim of the business organisation. Profit is not the primary concern; servitude to a better life for members of society seems to be a more plausible conception of the purpose of the business organisation.

CONCEPTIONS OF THE ORGANISATION

The conception of the business organisation presented above is not a novel conception. Literature abounds with similar points of view (Platts, 1997; Handy, 2002; Ahmed & Machold, 2004; Liker & Meier, 2006; Ali et al. 2012; Hiller, 2012,; Griseri, 2013). The question seems not to centre on what the fundamental purpose of a business organisation is, but rather why the conception of the organisation as acting for the betterment of society and the members of society, is not adhered to? Three factors seem to have contributed to the current skewed conception of the business organisation and its management view. These factors are pervasive in literature as evidenced in the citations in the different sections. The factors are:

The “Business School” mentality: emphasis is placed on equipping/ coaching people with necessary skills for the world of work, rather than focussing on preparing well-rounded individuals for a career in management. This vocationalism detracts from an epistemic foundation of management as a discipline. In an effort to prepare people for a career, management educators tend to focus on experiences of successful business people over time and underemphasise the theoretical (and, most importantly, epistemological) foundations of the discipline, thus leaving no scope for interrogating the *modus operandi* of the business

practices that are deemed as successful. The net result is that aspects such as justice, fairness, ethics and epistemology tend to be virtually absent in the discourse of management.

The “Pop Culture” that pervades management as a discipline: as managerial ideas and conceptions are popularised through means other than the transmission of knowledge based on application of scientifically correct principles. This Pop Culture Mechanism, encompasses fads and fashions (Clark, 2004; Carson, Lanier, Carson & Guidry, 2000), but rather than differentiating between them, acknowledges the short lived nature of both fads and fashions. Instead, the Pop Culture Mechanism refers to the effect these fads and fashions have on one’s outlook on management within the contemporary business organisation. Carson, et al., (2000) conceive that both fads and fashions are of a short-lived nature and that both seem to fade away after a while, even though they might have developed a following during their tenure. The reason for this is that fads and fashions are soon shown up for not being grounded on irrefutable evidence (Abrahamson & Fairchild, 1999). Instead, they conform to the typical mass appeal associated with popular culture. They are packaged as having a simple message that can solve the problems of managers the world over (Clark, 2004), as the “Business Books” sections of contemporary bookshops attest to.

The Quantification Obsession: This emanates from the notion of “if we can’t observe it, we cannot manage it” (MacDonald, 2002). Observation has thus become central to the management decision, as observable variables can be measured and, subsequently managed. However, one should bear in mind that, generally, the observable may be indicators of the concept(s) that needs to be measured (Greene & Browne, 2008), and thus have the potential to distort decision making and action if these are not linked back to the concept needing treatment. Out of necessity, and in an effort to enhance rationality of decisions, observation – and subsequent measurement of our observations – tends to be quantified (Mankelwicz and Kitahara, 2010). Thus the notion of “if we can’t observe it, we can’t manage it” changes somewhat to “if we cannot quantify it, we cannot manage it”. This seems to be in direct contrast to the widely quoted saying by Albert Einstein that: “everything that counts cannot be counted and everything that can be counted does not count” (Allen, 2008:148).

IMPLICATIONS

Profit maximisation should not be the ultimate goal of an ethically guided business as it is inconsistent with the principle of serving society. Hence, the most pertinent implication for the study of business organisations centres on the inculcation of an ethical ‘moral fibre’ that should permeate throughout the business organisation. If one conceives the business as part of society, that it has an active role to play in shaping society, and that this role should be one of helping to uplift society, then the outlook toward ethical practice is a different one. Instead of viewing issues such as ethical business practice, corporate social responsibility, corporate governance and even sustainability as compliance issues, which are generally dealt with by checking the relevant tick box, these now become innate, and form the basis of business decisions, rather than considering these aspects after business decisions have been made. Furthermore, educators should assume a more prominent role in shaping the thinking of business leaders of the future. Instead of merely disseminating business management literature and theory to students, educators need to adopt the role of responsible educator, whereby they need to act as a gatekeeper and expose students to literature and theory that is *worthwhile*. To attain this, educators need to engage their subject matter with greater scepticism and should be able to discern between points of view that will create well rounded business leaders and expose points of view that will arm future business leaders with a skewed, over simplified perception of the dynamics of management.

CONCLUDING REMARKS

The resurrection of the original purpose of the business organisation is not an option anymore. It has now become an essential survival need as business organisations try to come to terms with the new demands placed upon them in the 21st Century (as seen by the explosion in the related literature). The profit motive has been blamed for many effects including corruption, depletion of resources, societal degradation and an increase in poverty. In a desperate effort to take corrective action, business leaders try to conceal these effects under Band-Aids. Business organisations tend to try to find short term solutions to address these effects, instead of addressing the cause of these effects. The loss of the societal motive for business organisations as a fundamental

contributor to these current effects. To alter our perception on the “original” purpose of the business organisation goes a long way in addressing the concerns raised in this paper. The aim with this paper has been to create awareness amongst practitioners, but especially amongst scholars, as to the existence of a new, emergent paradigm in the academic discipline of Business Management. For too long now have we accepted Business Management theory as gospel truth. By engaging in Critical discourse, we are afforded the opportunity to conceptualise a different order of things. However, we need to build critical mass to be able to influence opinion and thinking.

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THE ETHICAL CONDUCT IN BUSINESS ORGANISATIONS: A SURVEY ACROSS THREE CONTINENTS

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ABSTRACT

The study explores the opinions of American, Polish and South African commerce students towards the ethical conduct exhibited by organisations in their respective home countries. Through the use of a quantitative survey, primary data were collected via a self-administered questionnaire. A quota sample was employed to pursue a target of 250 respondents at a South African, Polish and an American university. The data were subjected to statistical analysis using SPSS. The analysis employed descriptive statistics as well as t-tests to test the constructed hypotheses. The findings revealed that students in South Africa and in the USA perceived ethical conduct in much the same way, but these perceptions differed from the perceptions of Polish students.

Keywords: Ethical conduct; business ethics; stakeholders; cultural differences

INTRODUCTION AND BACKGROUND

In the management of organisations errors often occur in ethical conduct (Clark, 2006). This stems from *inter alia* competitive pressures, resulting in extreme demands on employees to meet goals that are not realistic. This in turn leads to “cutting corners” and acting unethically. Also, expediency is often favoured over quality, causing truth to be stretched. Therefore, the long-term benefits for the organisation are not considered (Harvey, 2002). Literature (Rossouw & Van Vuuren, 2006; Harvey, 2002; Abratt, Bendixen & Drop, 1999) therefore suggests that organisations desire to do what is ethical in order to be successful, as it all boils down to the reputation of the organisation and in what light stakeholders perceive the behaviour and intentions of an individual organisation. However, years of training within large organisations has led the authors to different insights as far as the rank-and-file employee is concerned. Inevitably, this has led to a questioning of the *bona fides* of organisations in this regard.

PURPOSE OF THE STUDY

From the introductory comments it is evident that acting ethically and being ethical imply two different things. The acid test would be to ascertain how ethical behaviour of organisations is perceived by parties external to these business organisations. Consequently, this study endeavours to answer the following research question:

How do American, Polish and South African commerce students perceive the ethical conduct of business organisations in their respective home countries?

To answer this question, **the primary objective of this study is:**

to measure and compare the opinion of American Polish and South African commerce students toward the ethical conduct of business organisations in their respective home countries.

Business ethics literature focuses on what should be done, and has been done, from the organisational point of view to promote ethical behaviour. Not enough literature exists on peoples’ opinions of organisations’ ethical behaviour. This study attempts to shed more light on how organisations are perceived as corporate citizens.

LITERATURE OVERVIEW

Ethics can be considered “the science of morality” (Nieman & Bennett, 2006). Some believe that being moral stems from a concern about being caught doing something wrong, while others believe that being moral and ethical is a built-in characteristic of people who are looking out for each other and the continued existence of their species (Rosenstand, 2005). People’s definitions of good and evil differ, and only when actions of a legal nature are taken against them, do they realise they acted wrongfully (Pastore, 2003). Being ethical therefore involves integrity, sound values and doing what is honest, right, and good (Harvey, 2002; Bradley & Schrom, 2004).

Business ethics is a particular context to which ethics can be applied. According to Nieman and Bennett (2006:239), business ethics becomes apparent:

“...where the moral duties of ethics apply to the activities of an organisation.”

It is thus the discipline that deals with the values and rules of behaviour of society, while pursuing the goals of an organisation. Hertz (2006) states that organisations have a duty to regard all those affected in every decision it takes. Ethically questionable behaviour may have enabled organisations to acquire a competitive advantage in the past, but today such practices are frowned upon on a societal level. As mentioned, competitive pressures could result in dishonesty, focusing on short-term benefits, and compromising quality in return for expediency (Harvey, 2002). Simms (2006) also indicates that too little attention is being paid to the long term, due to extreme demands on people in organisations. Behaving ethically has a very important place in business operations and performance. However, focusing on the short term, cutting corners, and placing short-term financial gains above all else will not ensure business success, and is the breeding ground for unethical behaviour. Ethical codes are established in organisations to avoid the bad publicity that follows ethical blunders (Harvey, 2002). However, ethical behaviour starts with the individual. Thus, organisations must be cautious as to who they employ and form relationships with (Monaghan, 2005). Brandl and Maguire (2002) mention that guaranteeing ethical behaviour is a huge challenge, but organisations cannot afford to ignore this, as ethical behaviour contributes to long-term sustainability.

Friedman (1970) postulated that the only responsibility an organisation really has is toward its own shareholders. Friedman’s Shareholder Theory purports that managers should manage the organisation in the best interests of the shareholders by maximizing their return on investment (Rossouw & Van Vuuren, 2006). With increased emphasis on the rights of staff, protection of the natural environment and fair competition, however, this view has come under scrutiny. In reaction to Shareholder Theory, Freeman and Evan (1993:76) ask:

“For whose benefit and at whose cost should the organisation be managed?”

Freeman and Evan concluded that there were several arguments that led to a rejection of Friedman’s original stance. These include legal arguments (courts have ruled that the organisation has a duty towards parties other than shareholders), as well as economic arguments (contrary to the “invisible hand”, organisations have damaged the environment and disrupted society and have been heavily regulated (Rossouw & Van Vuuren, 2006)).

These arguments show that managers of organisations need to serve the interests of more than just shareholders. According to Rossouw and Van Vuuren (2006), managers have an obligation not to violate the legitimate rights of others, and are responsible for the effects of their actions on others. The exact number and labelling of stakeholders differs (Carroll, 1999; Griseri & Seppala, 2010; Lewis, Goodman & Fandt, 1998; Volberda, Morgan, Reinmoeller, Hitt, Ireland & Hoskins, 2011), but stakeholders identified include owners (shareholders), employees, suppliers, customers, environmental groups, media, society, local communities, managers, business partners, trade unions, and government. Carroll (1999) provides a classification of stakeholders based on the nature of their relationship with the organisation, and identifies two broad categories, namely Primary Stakeholders (having a formal/official/contractual relationship with the organisation) and Secondary Stakeholders (indirectly affected by the activities of the organisation).

Developed from Stakeholder Theory, Corporate Citizenship (CC) endeavours to (Van Marrewijk, 2003:98):

“...connect business activity to the broader social accountability and service for mutual benefit.”

The organisation is thus a member of society, with rights and accompanying obligations to which it should be subservient (Waddell, 2000). CC is a view that impresses characteristics of a person upon the organisation.

“Person” does not imply a natural person, but rather a social construct. It implies legal personality, with the organisation being able to enter into legally binding contracts, negotiate, and be accountable for its actions. This translates into rights, obligations, and responsibilities to which the organisation needs to adhere.

People of different nationality may have different ideas about the conduct of organisations as members of society. Hofstede (Hofstede, 1991; Hofstede, 2001) provides a seminal understanding of national value differences within organisations, identifying four dimensions (Power distance, Individualism, Masculinity, and Uncertainty avoidance) along which values of employees in 53 different countries varied. Hofstede’s work suggests that countries that score similarly in terms of different dimensions could be grouped together in “country clusters” exhibiting similarities in terms of values (Hodgetts & Luthans, 1997). This does not mean that ethical principles along specific dimensions will be identical within these clusters, but the probability is high that ethical principles will overlap within these country clusters. Cultural differences in ethical principles in business necessitates an examination of whether these differences can be justified. This further fuels the debate between ethical relativism (different principles apply in different regions) and ethical universalism (a single set of principles, applicable to all). Somewhere between these poles resides Stakeholder Theory, which, recognises that different stakeholders have differing interests and are affected differently by decisions taken in the organisation. On the other hand, Stakeholder Theory also realises the necessity of satisfying the needs all stakeholders (Fisher & Lovell, 2009). This reminds strongly of the Rawlsian Difference Perspective (Rawls, 1971), which stipulates that inequalities should be arranged in such a way that they are reasonably expected to be to everyone’s advantage. Ethical standards can be tested against the Difference Principle, and if they do not benefit all stakeholders they are deemed inappropriate (Rawls, 1971). Therefore, Stakeholder Theory in its most stringent application should conform to the Difference Perspective.

HYPOTHESES EMPLOYED

This paper considers how students perceive organisations’ ethical behavior, as this is a manifestation of their organisations’ conduct. The decision was made to use stakeholder groups loosely based on the Strategic Stakeholder Grouping classification presented by Post, Preston and Sachs (2002). According to this classification, stakeholders are categorised into three groups based on their strategic environments, which provides the organisation with direction in terms of how to deal with different stakeholders:

- Core stakeholders: Vital to the existence of the organisation.
- Competitive Environment stakeholders: Define the company’s competitive position in an industry/market.
- External environmental stakeholders: Challenge the company to foresee/respond to developments as they arise.

For the purposes of this study, five stakeholder groups were used:

- The **Environment**, an external environmental stakeholder group (ENV);
- **Staff**, a core stakeholder group (STA);
- The **Community** at large, an external environmental stakeholder group (COM);
- **Regulatory** bodies, an external stakeholder group (REG), and
- **Competition**, a competitive environment stakeholder group (COM).

Shareholders have not been included, as it is implicit that organisations act responsibly toward shareholders.

With these groupings in mind, the study endeavours to test the following hypotheses:

- H1: Organisations do not act in the best interests of the environment*
- H2: Organisations do not act in the best interests of staff*
- H3: Organisations do not act in the best interests of the broader community*
- H4: Organisations are not committed to being good corporate citizens*
- H5: Organisations do not compete fairly*

RESEARCH DESIGN

This study employed an exploratory, survey design to collect primary data. As mentioned, not much work has been done on how students view the ethical conduct of organisations. Consequently this study endeavours to deepen our understanding of this issue. The research population comprised business students at the University of

Johannesburg (South Africa), the Krakow University of Economics (Poland) and the Florida International University in Miami, USA. Final year and post-graduate students were used in this study, as they would have a better theoretical understanding of the issues under investigation, and secondly (most importantly) there is a greater probability that senior and post-graduate students will be employed, and therefore able to comment on their experiences of ethical conduct exhibited by business organisations. Non-probability sampling, in the form of a quota sample, was employed. A target of 250 respondents was decided on for each country, culminating in a combined target of 750 respondents. The study employed a customised measuring instrument that was developed by the authors. The items derived from literature and were measured on a 6 point Likert-scale. Student participation was voluntary and surveys were administered directly to lecture venues by student assistants. Data analysis included quantitative reliability tests, descriptive as well as inferential statistics. Cronbach-alpha reliability tests were performed on each construct to measure the internal reliability of the constructs employed. Descriptive statistics were compiled to assess the nature of the normal distributions of each construct. This would illustrate how commerce students perceived the ethical behaviour of business organisations – positive or negative – in terms of the identified constructs. Here, the mean value of each construct would be analysed against the median value of the measuring instrument. As the scale was coded from 1 = Always through to 6 = Never, the median value was 3.5. Therefore, 3.5 was an objective “midway” in determining whether opinion was negative or positive towards a given construct (lower than 3.5 would be positive and higher than 3.5 would be negative). To compare similarities between the SA, Polish and American datasets, independent samples t-tests were performed. Where statistically significant differences were encountered, the Effect Size was also calculated to provide an indication of the magnitude between the differences of the means in the two groups. Lastly, one sample t-tests were performed to test the presented hypotheses.

RESEARCH FINDINGS

The South African survey (ZA) realised 258 survey questionnaires, of which 251 were usable. The Polish survey (PL) yielded 262 questionnaires, of which 257 were usable. The American survey (US) rendered 343 usable questionnaires, yielding a total of 851 usable questionnaires. 72,5% of ZA respondents, 94,5% of PL respondents and 78,1% of US respondents were employed at the time of completing the questionnaire. This is crucial, as the respondents had working experience and could express valid opinions about the ethical behaviour of organisations. In terms of work experience, 78,4% of ZA respondents, 97% of the PL respondents, and 97,1% of the US sample had work experience. Thus, the sample surveyed expressed valid opinions concerning the ethical conduct of organisations.

With the exception of “Ethical conduct in competition” (COP), the Cronbach’s Alpha values range between 0.55 and 0.79. This is satisfactory for exploratory research (Scheepers, Bloom & Hough, 2008; Nunally, 1978). As a result of alpha values between 0.32 and 0.10, the construct COP was discarded.

The South African opinion of the “Ethical conduct toward the environment” (ZA ENV), shows a mean value of 4.154, a 0.654 negative deviation from the measuring instrument mean of 3.5², therefore ZA respondents felt that organisations did not behave in the best interests of the environment. PL ENV mean value was 4.193, a 0.693 deviation to the negative. The US ENV mean value was 4.129, a 0.629 deviation to the negative. South African opinion of “Ethical conduct toward staff” (ZA STA) measured a mean of 3.475, a 0.025 deviation to the positive³, thus ZA respondents felt that organisations do behave in the interests of staff. The PL STA was 3.800, a deviation of 0.300 to the negative side of the scale. The US mean for this construct was 3.362, a positive deviation of 0.138. The ZA “Ethical conduct toward the community” (ZA COM) measured a mean value of 3.427, a 0.073 positive deviation, while the PL COM mean value was 4.012, a 0.512 negative deviation. The US COM mean value was 3.535, a 0.035 negative deviation. “Ethical conduct toward regulators” for ZA (ZA REG) mean was 3.651, representing a 0.151 negative deviation. The PL REG exhibited a mean value of 3.852, a negative deviation of 0.352, whereas the US REG mean value was 3.662, a 0.162 negative deviation. COP was deemed internally unreliable and was discarded. All deviations are quite small (0.025 to 0.654) and can be seen to be neutral and meaningless. However, in this study, neutral opinion has meaning, as it represents something other than what organisations profess in terms of ethical conduct.

² A “negative deviation” implies that the opinion of the respondents toward this construct was negative (albeit slightly),

³ “Positive deviation” implies that the opinion of the respondents toward this construct was positive (albeit very slightly)

In the interests of brevity, the statistical analysis for this study can be summarised as follows:

Table 1: Summary of statistical analysis

Construct	Country	Reliable Construct?	Opinion	Statistically significant?	Effect size	Significant difference in means?
ENV	ZA	Yes	Negative	Yes	Moderate	No
	PL	Yes	Negative	Yes	Moderate	
	US	Yes	Negative	Yes	Moderate	
STA	ZA	Yes	Positive	No	Very small	Yes (between PL and US and between PL and SA)
	PL	Yes	Negative	Yes	Moderate	
	US	Yes	Positive	Yes	Small	
COM	ZA	Yes	Positive	No	Very small	Yes (between PL and US and between PL and SA)
	PL	Yes	Negative	Yes	Moderate	
	US	Yes	Negative	No	Very small	
REG	ZA	Yes	Negative	Yes	Small	Yes (between PL and US and between PL and SA)
	PL	Yes	Negative	Yes	Large	
	US	Yes	Negative	Yes	Small	
COP	ZA	No	N/A	N/A	N/A	N/A
	PL	No	N/A	N/A	N/A	
	US	No	N/A	N/A	N/A	

The findings indicate that the following opinions are statistically significant:

- For ZA: Organisations do not act in the best interests of the environment or regulatory authorities.
- For PL: Organisations do not act in the best interests of the environment, staff, the community at large or regulatory authorities.
- For US: Organisations do not act in the best interests of the environment, their staff, or the regulatory authority.

Also, the following opinions are meaningful from a practical point of view:

- For ZA: Organisations do not act in the best interests of the environment.
- For PL: Organisations do not act in the best interests of the environment or of the community at large.
- For US: Organisations do not act in the best interests of the environment or of regulatory authorities.

In summary, it is evident that South Africans and Americans feel much the same about how organisations treat the environment (ENV), staff (STA), the community at large (COM) and regulatory bodies (REG). All statistically significant measures seem not to reject any of the stated hypotheses, although the effect sizes indicate that these measures are not always practically meaningful. Polish sentiment seems to be different from American and South African sentiment. For the Polish dataset, all measures (except COP) were statistically significant and seemed to support the stated hypotheses. However, the effect sizes suggest that these measures are not always meaningful. With the exception of organisations' behavior toward the environment, all constructs exhibited differences in opinion between PL and SA and between PL and US.

CONCLUSION

The ethical conduct of South African organisations towards the physical environment and regulatory bodies are questioned by ZA respondents. They are seemingly mistrusting of the intentions of organisations to comply and serve the interests of the environment legally. These findings underscore the notion that organisations act in their own best interest. ZA findings also reveal that respondents have a more lenient view how organisations treat their staff and the community at large. However, these findings are not statistically insignificant, which does not mean that these findings are incorrect, but rather it cannot be proven that this sentiment is more than coincidence. American respondents share many of the sentiments of the South African respondents. They are also mistrusting of the intentions of organisations to comply and serve the interests of the environment, staff and regulators alike, thus further reinforcing the notion that organisations act in their own interest. From the Polish findings, it is evident that Polish respondents harbor significantly negative sentiments concerning the ethical conduct of organisations, reflecting mistrust of the ethical intentions of organisations on the whole.

When comparing the mean scores for the three countries for the theoretical constructs, many similarities exist. In terms of how respondents viewed the behaviour of organisations towards the environment, staff, the

greater community and regulatory authorities, no difference exists between South African and American opinion, indicating that South Africans and Americans agreed in their perception of irresponsible treatment of stakeholder groupings. Thus, American and South African opinion of the ethical intentions of organisations towards the identified constructs is virtually the same. This is surprising, as one would not expect opinions to be so similar between countries so far apart. This is contrary to the Country Cluster notion of Geert Hofstede (Luthans & Hodgetts, 1997), whereby practices (as well as the value systems that underlie them) from different cultures can be grouped together according to their spatial proximity. One can speculate that the dominance of American literature used in management courses in South Africa, as well as the dissemination of American popular culture across the globe could have an impact on this convergence of opinion.

However, when comparing the similar opinions of the South African and American data to the Polish data, differences emerge. In terms of organisations' treatment of staff, it can be seen that the Polish effect size is moderate, suggesting that the difference in mean values is more than coincidence. Although South African opinion for this construct is deemed statistically insignificant, the difference in mean values of the three countries warrant explanation. It must be remembered that the Polish workforce still consists of many people who were economically active under Communist rule. Although instrumental in the demise of communism in Central Europe, many of the older generation Poles are distrustful of the intentions of free market economy business organisations (Stanek, 2008). Polish society is also very conservative, steeped heavily in Catholicism. This could also serve as the basis for this difference in opinion, as US and South African society is far more heterogeneous, accepting and open to new ideas and change.

Opinion toward ethical conduct of regulators also differed widely between Polish and American data and between Polish and South African data, as the Polish effect size of this construct was large. Despite a booming economy, Poland is still seen (primarily by its own citizens) as being rife with corruption, both in government and in business (Stanek, 2008). Poles seem to view those in power as being able to 'wheel and deal', serving their own interests above all else. This suspicion could stem from the conservative outlook of Polish society as well as from the fact that the fall of Communism led to many questionable opportunities for personal gain, something that was frowned upon by the average Pole.

RECOMMENDATIONS AND MANAGERIAL IMPLICATIONS

This study highlights that there is a disconnect between what organisations profess to do in terms of ethical conduct toward different stakeholders, and how a sample of American, Polish and South African management students perceived these actions. In comparing American, Polish and South African opinion, it was evident that both Americans and South Africans felt roughly the same about the identified aspects of the ethical behaviour (treatment of the environment, treatment of staff, treatment of the community and conduct toward regulatory bodies) of organisations. This suggests that ethical behaviour is perceived similarly by South African and American management students, but subtle differences do exist, and organisations should take cognisance of these differences when deciding upon ethically appropriate behaviour. However, differences in opinion do exist between American and South African opinion, on the one hand, and Polish opinion on the other. These differences mainly center around organisations' treatment of staff and of the community at large.

A business could sustain itself by employing staff who are able to act morally and ethically. Managers must recognise and acknowledge the dignity and human rights of all stakeholders. It is necessary to formulate ethical codes so as to keep employees on a sound moral course and to maintain high ethical standards. Moral values cannot be disregarded as these drive honesty and make way for strong social inclusiveness. Staff needs a set of organisational values to guide their conduct and they should be involved in the formulation of these codes. Organisations should develop sustainable partnerships with their communities and honor their moral obligation to society, the environment and all other stakeholders, as moral behaviour entails looking beyond self-interest and focusing on the concerns of others.

Educators also have a role to play in ensuring that individuals with sound moral standards enter the workplace. Although difficult, business ethics should be integrated into management training syllabi and curricula. Students tend to adopt the attitude of their professional reference groups before they commence their professional careers and having business professionals as guest lecturers on the issue, more graduates of good

moral and ethical standing could be nurtured. The similarities in opinion between the American and South African students testifies to issues people feels strongly about in terms of organisations ethical behaviour. The study shows that similar things are important in different areas. Ethics is not just about doing the right thing; it seems to be doing the right thing at the right time and in the right place, which is a perspective that leans toward ethical universalism. It must be borne in mind that there might be mitigating circumstances for the similarity in opinion that exists between South African and American respondents as well as the differences in opinion that exists between South African/American respondents and Polish respondents. As mentioned, this might be attributable to the dissemination of American cultural values via mass media or the Americanised approach to management education in South Africa as well as the mainly Russian influence in Poland in the latter half of the 20th Century. The study also indicates that respondents had a negative perception about ethical conduct of organisations in general. Organisations should highlight instances where the organisation has taken the moral high ground in their business dealings, which could be incorporated in the corporate marketing strategies of organisations.

LIMITATIONS AND AREAS FOR FUTURE RESEARCH

A limitation of the study is that a student sample was drawn from one specific location per country. The findings are therefore not representative on a national level, but reflect only the views of those who participated in the study. On an exploratory level, the findings remain insightful. As the sample was drawn from students studying toward a business or management qualification, surveying respondents on a topic related to their field of study could lead to some level of response bias. Attitudes of other students could differ, but then again, students not in the field of business or management might not be familiar with business ethics at all. As an exploratory study, the measuring instrument needs refinement. The construct of ethical conduct in competition (COP) needs to be redesigned, indicative of the difficulty in measuring this concept, as it has different meanings for different people. As mentioned before, the similarity in opinion needs to be investigated further. It was not the intention to ascertain *why* opinion was similar or not, the objective was merely to see *if* opinion was similar or not. The speculative reasons reflected in this study should definitely be researched, as one would not expect opinion to be so similar between countries that are geographically and culturally separated. Also, the study needs to be taken wider, not only on a local level, but also on an international level. Collecting data from numerous countries could show the sentiment toward the ethical intentions of organisations in different parts of the world.

There is evidence to suggest that people in different parts of the world perceive the ethical conduct of organisations in a negative light. This does not bode well for organisations in an era when the role and function of the organisation in society has been seriously questioned. Rossouw and Van Vuuren (2006) quote six myths of business ethics, one being that the organisation pursues profit at all cost. Although exploratory, this research suggests that these types of myths can perpetuate if organisations do not realise what their stakeholders actually think of them.

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PROFITABILITY IN PORTUGUESE TOURISM RECREATION ENTERPRISES

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ABSTRACT

In recent years, the activity of tourism recreation in Portugal has grown in terms of the number of enterprises which influences positively the Portuguese economy. Profitability is considered one of the most important goals of an enterprise. So, this study examines the profitability of Portuguese recreation enterprises for the period of 2009, 2010 and 2011. Various profitability ratios were explored as well as it was analyzed the relation between profitability and a set of factors such as size (turnover and headcount), growth of turnover, and return on sales. The empirical results show that these factors influence the profitability of Portuguese recreation enterprises significantly and positively.

Keywords: Profitability, recreation enterprises, financial indicators, performance, micro enterprises

INTRODUCTION

Officially we can talk about tourism recreation enterprises in Portugal since 2000, when it appeared the first legal act regulating the access of tourism recreation enterprises. The national perspective of tourism recreation enterprises has changed very quickly from 2000 to the present day. In 2001 there were 24 tourism recreation enterprises, but now there are 2 264. The direct economic impacts associated with the growth of the tourism recreation sector are inevitable, raising the importance of these enterprises in the Portuguese economy.

Profitability is considered one of the most important goals of an enterprise. So, the decisions are taken to increase the wealth of the shareholders of an enterprise. The return on equity (ROE) is an important ratio because it measures the return to shareholders and it allows its comparison with other investments. Taking account the literature, there are many factors influencing the profitability of an enterprise.

Several authors have researched about indicators that can influence the financial performance of an enterprise, like size (Majumdar, 1997; Adams & Buckle, 2003; Goddard et al., 2005; Serrasqueiro & Nunes, 2008; Nunes et al., 2009;), debt (Adams & Buckle, 2003; Goddard et al., 2005; Serrasqueiro & Nunes, 2008; Nunes et al., 2009; Diakomihalis, 2011), fixed assets (Nunes et al., 2009), age (Majumdar, 1997), return on sales (Lopes et al., 2014), performance of several years (Serrasqueiro & Nunes, 2008), market share (Goddard et al., 2005), liquidity (Adams & Buckle, 2003; Goddard et al., 2005; Serrasqueiro & Nunes, 2008), working capital (Deloff, 2003; Bieniaz & Golas, 2011; Baños-Caballero et al., 2012).

Given the importance of the tourism recreation enterprises in the national economy and due to the profitability equity ratio to be one of the most used by enterprises' owners, it is urgent to determine the factors that influence positively the ratio in question. It is necessary to find what factors can maximize the profit of tourism recreation enterprises. Then this study is going to analyze the relation between profitability (net return/equity, operational return/equity) and a set of factors, like size (turnover, headcount), growth of turnover and return on sales.

In terms of structure this paper contains a literature review - in the next section - where it is explored the financial performance of enterprises. It was analysed a set of several ratios, but it was emphasized the

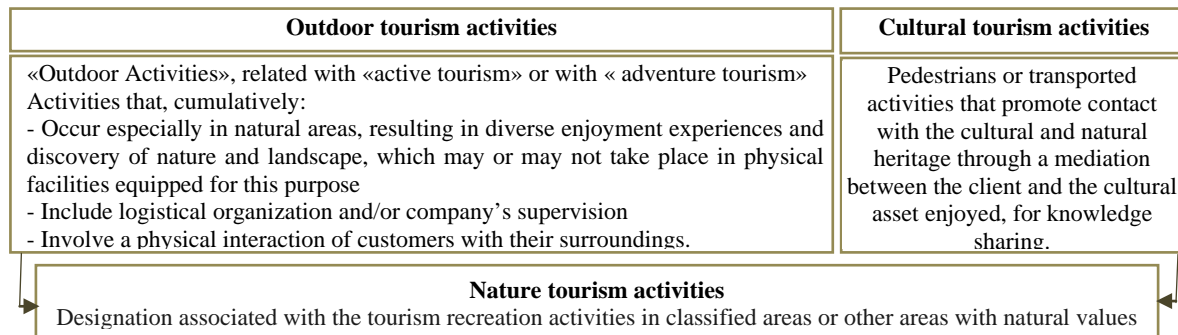
profitability. Based on the literature it was formulated hypotheses. It follows the methodology, the results and in the end, the last section presents the conclusions, including the managerial implications.

LITERATURE

Officially we can talk about tourism recreation enterprises in Portugal since the year 2000, when the first legal act (Decree Law No. 204/2000 of 1 of September) for regulating the access and the activity of these enterprises was published. The last decade of the twentieth century is characterized by an increasing diversity of motivations associated with leisure, recreation and tourism. This situation has created a vast development opportunities in terms of tourism recreation activities. The new recreation motivations and interests arise in different fields, including culture, nature, sport, rural world, health and welfare, among others. In turn, the recreation activities embody a number of experiences including: the search for cultural authenticity, the direct contact with local cultures and communities, meeting local traditions, contacting with nature and biological diversity, learning about environmental education, practicing sports, adventure, discovery, etc.

These activities can be organized in sites where tourism is already developed - and in these cases there is the intention of supplementing and diversifying the existing supply - or may arise in areas where tourism is still not developed. In such cases, if properly planned, tourism recreation activities could be an incentive factor to the appearance of other services, equipments and businesses, contributing to new socio-economic dynamics. Currently (according to the Decree Law No. 95/2013 of 19 of July) are considered tourism recreation activities the ludic activities with recreational, sportive or cultural nature, which are organized into two subgroups: those of outdoor tourism activities and cultural tourism activities. Figure 1 differentiate and define the activities included in each subgroup.

Figure 1: Typology of Recreation Activities



Source: Decree Law No. 95/2013 of 19 of July

Tourism recreation activities can be organized in any context, whether urban, rural or natural, and in any environment, whether land, air or water, whether outdoor or indoor. Enterprises that develop activities exclusively in water environment must register as a **maritime-leisure company** (typology that arises in 2002 with the Decree Law No. 21/2002 of 31 of January). In turn, enterprises carrying out such maritime-leisure activities but also other recreation activities should register as tourism recreation enterprises.

From 2009 (Decree-Law No. 108/2009, of 15 of May) it is established in a single regulation the rules for access and exercise conditions to the activity of these enterprises, regardless of the type of tourism, recreation activities that are organized and is created the National Registration of Tourism Recreation Agents (NRTRA), which includes the tourism recreation enterprises and the maritime-leisure enterprises. In order to organize tourism recreation activities enterprises are required to register themselves in NRTRA through an electronic form available in an electronic service counter. This registration is organized by the Tourism of Portugal, which contains an updated list of recreation agents operating in the recreation sector, allowing for better monitoring and keeps up with this sector development.

The national panorama of tourism recreation enterprises changed very quickly from 2000 to the present day. Of the 24 tourism enterprises licensed in 2001, we pass to 2264, in April 2015 (date on which this article was completed). More precisely, 1625 registered as tourism recreation enterprises and 640 as a maritime-leisure enterprises. According to the study edited by Turismo de Portugal, IP about the characterization of the tourism recreation in Portugal (Turismo de Portugal, 2014), the evolution of tourism recreation enterprises between 2004 and 2014 was 93,2%, with an average annual growth rate of 47,8%. This 10-year period was marked by the need to simplify the access and exercise's conditions of the activity of tourism recreation enterprises and maritime-leisure enterprises and also substantially reduce registration fees. In this sense, there have been legislative changes in 2009 and 2013 which had an immediate impact on the number of registered enterprises in the following years. Indeed, in 2010 there is a further evolution of the growth rate of the registered enterprises (about 280% compared to 2009) and between 2013 and 2014 the growth has been of 74,4%.

Figure 2: Evolution of NRTRA active registrations, between 2004 and 2014



Source: Turismo de Portugal, 2014

The direct socioeconomic impacts associated with the tourism recreation sector growth are inevitable. For example, in terms of job creation, each tourism recreation company employs an average of 9 full time employees. The same indicator falls to 3 with regard to maritime-leisure operators (Turismo de Portugal, 2014). In financial terms, the appearance of more than 2,200 enterprises in just a decade necessarily had effects on wealth creation at a national level, but also in terms of the locals and regions where they operate. Nevertheless, when we analyze the amount of average annual turnover of these enterprises, we identify some weaknesses because there is a high proportion that presents values inferior or equal to €10,000 (for 48% of the maritime-leisure enterprises and for 31% of the tourism recreation enterprises). The tourism recreation enterprises are those with the best performance in terms of turnover with 23% showing an annual turnover above 100 000€ against 12% verified in the maritime-leisure enterprises (Turismo de Portugal, 2014).

In regional terms, the emergence of such recreation enterprises has been very important especially in desertified regions that had no development, social or economic. The regular organization of recreation activities in these territories required the appearance of other enterprises (tourist accommodation, catering, handicrafts, etc.) and has imposed a set of improvements (transport and basic infrastructure, signage, etc.). At national terms, it is important to realize the impact of these enterprises in terms of wealth generation to GDP, which can be measured by the profitability ratios, showing its importance as well as the factors affecting them.

Ratio analysis has been widely used in studies about enterprises financial performance and its use has been highlighted by accounting and finance textbooks. However, it should be considered that a ratio is a value of a relation and it is essential to know the parts of this relation. Accordingly to Kim & Ayoun (2005), there is not an agreement about ratios denomination and estimation. Then it is important in addition of the denomination, how its estimation was done.

Ratios are subdivided into five categories such as: profitability, liquidity, capital structure, asset management and market value (Kim & Ayoun, 2005). Profitability ratios show the capacity of an enterprise to use equity, sales and assets. Return on equity (ROE) indicates the stockholders' return (Kim & Ayoun, 2005). The ROE has been used for several authors such as Lopes et al. (2014) who determined indicators and ratios that influence the return on equity. One of the most publicized models to assess the economic situation of the company is the multiplicative model, known as Dupont model, which seeks to demonstrate the factors that influence the company's profitability from the shareholder viewpoint (Rodrigues and Simões, 2008; Lopes et al., 2014). It presents a decomposition of ROE, where it can be found determinants of profitability.

Dupont model is presented by Lopes et al. (2014) like:

(1) $ROE = \text{Net income/Sales} \times \text{Sales/Total asset} \times \text{Total asset/Equity}$.

Nunes et al. (2009) conclude that services enterprises have a volatile profitability. However it is persistent, so if we have profitability this year we are going to have in next year too.

There are many studies that analyse factors which influence enterprises' profitability such as enterprises' size which is analysed by several authors. However, sometimes they do not reach the same conclusions. The profitability (ratio between operational results and total assets) is higher if the enterprises are large, by others words, there is a positive relation between size and profitability (Majumdar, 1997; Nunes et al., 2009; Serrasqueiro & Nunes, 2008). Risseeuw (1997) refers that small enterprises differs from the large ones because usually have worse performance rates (when compared with the larger). Nevertheless Goddard et al. (2005) contradicts this line of thought claiming the existence of a negative relation between size (asset) and profitability (return on assets). Adams & Buckle (2003) say that the size of enterprises it isn't significant in terms of profitability.

Turnover growth (rate of sales growth) of an enterprise is considered very important to the profitability. If there is a turnover growth, there will be an increase in profitability, because there is an increase of motivation all over company's organizational structure (Nunes et al., 2009). But growth can be referred as enterprise sustainable growth rate which influences positively the profitability (Kouser et al., 2012). The enterprise debt also influences its profitability in a negative perspective, i.e., lower debt implies greater profitability (Serrasqueiro & Nunes, 2008; Nunes et al., 2009). This is also Goddard et al. (2005) opinion's when they refer to a negative relation between gearing ratio (non-current liabilities plus loans divided by equity) and profitability (return on assets). Other authors (Adams & Buckle, 2003; Diakomihalis, 2011) examined financial leverage ratio with profitability, but their conclusion depend of the size of hotel. For smaller hotel the loans do not affect profitability but for bigger hotels he found a positive relation, i.e., more loans generates more profitability.

A lower level of fixed assets becomes in a bigger profitability (Serrasqueiro & Nunes, 2008; Nunes et al., 2009). If the enterprises have a range of diversified services, it will imply a greater level of innovation what determines a bigger profitability (Nunes et al., 2009). Market share also influences the profitability (return on assets) of enterprises, there is a positive relation (Goddard et. al, 2005). Age influences negatively the profitability. So the youngest enterprises are more profitable (Majumdar, 1997; Risseeuw, 1997; Bhayani, 2010). Liquidity (current assets net of stock divided by current liabilities) is another very important factor but with controversial opinions. Some (Goddard et. al, 2005; Bhayani, 2010) defend a positive relation with profitability (return on assets). Others defend a negative relation with profitability (Adams & Buckle, 2003) and Serrasqueiro & Nunes (2008) draw different conclusions about liquidity, because they say that factor is not relevant in explaining the performance.

Enterprises must have an optimal level of working capital, and it is this level that maximizes the profitability of an enterprise (Deloff, 2003; Baños-Caballero, et al. 2012). If enterprises move away from their optimal level, the profitability will decrease (Baños-Caballero *et al.*, 2012). Though, Bieniasz & Golas (2011) refer that a short working capital cycle implies higher profitability (return of operating assets) on food industry enterprises. Deloof (2003) refers that profitability (gross operating income/(total assets – financial assets)) decreases when working capital increases. So if the enterprises want more profitability it is better a small working capital.

An increase in return on sales implies an increase in ROE (Lopes *et al.*, 2014). It was also found a strong positive correlation between return on assets, ROE and return on sales (Herciu *et al.*, 2010). In short, there are many variables that influence the profitability of enterprises. However, the type of influence varies according to the studies. It may depend of the type of company, of the profitability ratio calculation or even of the analysis sector that belong the enterprise. In summary, from the literature it was found the following determinants: size, age, return on sales, working capital, liquidity, market share, innovation, fixed assets, debt and turnover growth. According to the literature review the following hypotheses were formulated, which are going to be tested on Portuguese tourism recreation enterprises for the years of 2009, 2010 and 2011.

H1: There is a positive relation between size of tourism recreation enterprises and their ROE;

H2: Turnover growth of tourism recreation enterprises influences positively their ROE;

H3: The return on sales of tourism recreation enterprises influences positively their ROE.

METHODOLOGY

Adopting a quantitative approach, it was used secondary data which characterizes the tourism recreation sector in Portugal. The time period of the study covers the years of 2009, 2010 and 2011. It was tested a set of hypotheses that was formulated accordingly to the literature review. The sample used in this study was selected from a population consisting of tourism recreation enterprises and maritime-leisure enterprises operating in Portugal. The sample was obtained from the National Register of Tourist Recreation Agents (NRTRA). To provide more consistency to our sample, enterprises whose legal status is individual enterprise/sole trader were excluded from this list, only remaining the enterprises with the legal form of limited enterprises and/or anonymous societies.

In order to obtain a representative sample, the enterprises were selected through the method of stratified systematic random sampling. It was selected one enterprise every three enterprises in the list presented in NRTRA, beginning in the first one. It was obtained a sample of 291 tourism recreation enterprises and maritime-leisure operators. To characterize the profitability of tourism recreation enterprises it was necessary complementary information, so we used secondary data of this sector. The necessary information was collected from IES database (Simplified Business Information) for the financial years 2009, 2010 and 2011. The study draws upon a data source of financial statements like balance sheet and income statement (see the considered variables in table 1).

Table 1: Measurement of variables

Variables	Measurement
Net income after taxes (2011, 2010, 2009)	Net income after taxes
Size employees (2011, 2010)	Number of employees
Equity (2011, 2010, 2009)	Equity
Size sales (2011, 2010, 2009)	Sales
Net ROE (2011, 2010, 2009)	Ratio between net income after taxes and equity
Operating ROE (2011, 2010, 2009)	Ratio between operating income and equity
Turnover growth	(Sales 2011 – Sales 2009)/Sales 2009
Net return of sales (2011, 2010, 2009)	Ratio between net income after taxes and sales
Operating return on sales (2011, 2010, 2009)	Ratio between operating income and sales

Source: elaborated by the authors

The data was processed using SPSS (Statistics Packages for Social Sciences). In order to characterize the profitability and other variables (size, growth and return on sales) it was utilized descriptive statistics. The relation defined in the hypotheses were tested by univariate and bivariate analysis, for example, it was utilized: mean, Spearman's Rho. First of all for the correlation between the variables it was thought using Pearson coefficient. However, according to Pestana and Gageiro (2008), this coefficient requires that the data was derived from a two-dimensional normal distribution. So it was studied the normality of all variables through the Kolmogorov-Smirnov test. The normality was rejected for all variables, so it was selected Spearman's Rho. According to Pestana and Gageiro (2008), Spearman's Rho measures the intensity of the relation among variables, and is commonly used to describe the relation among two ordinal variables or one ordinal and other scale variable. Due to the fact that this coefficient is not sensitive to asymmetric distributions, it does not require normal populations. The aim of this study is to determine the factors that influence the profitability of recreation enterprises. Taking into account the literature, there are several variables that can influence.

RESULTS

The time period of the study covers the years 2009, 2010 and 2011, and it was obtained a sample of 291 tourism recreation enterprises and maritime tour operators. Featuring the sample by size and considering the definition presented by European Commission Communication in the year of 2011, it was found that the sample consists mainly of micro-enterprises (255, corresponding to 87,63% of the total). The remaining percentage is composed by 28 small enterprises 28 (9.62%), 7 middle sized (2.41%) and 1 large enterprise. Table 2 provides the descriptive statistics for the variables analysed in this study. Through Table 2 can be analysed that on average tourism recreation enterprises present negative net income after taxes. Though, on average, turnover has grown

on these three years. It must be underlined that these variables show some volatility because standard deviation is above the mean.

Table 2: Descriptive statistics (n=291)

Variables	Mean	Standard deviation	Minimum	Maximum
Net income after taxes 2011	(62 572.62)	613 534.10	(9 489 593.52)	2 299 963.59
Net income after taxes 2010	(72 100.24)	464 033.77	(5 349 956.65)	488 381.66
Net income after taxes 2009	(31 094.62)	930 054.00	(6 201 499.52)	13 562 118.19
Size 2011 employees	7.66	26.36	0	388
Size 2010 employees	8.83	35.05	0	291
Equity 2011	451 244.68	5 888 865.71	-21 962 624.35	40 960 391.19
Equity 2010	709 766.05	5 619 026.53	-19 840 668.42	67 739 670.31
Equity 2009	691 868.88	3 953 929.03	-18 177 000.29	73 098 626.96
Turnover 2011	384 980.53	1 465 961.82	0	14 387 799.40
Turnover 2010	521 337.29	2 701 311.58	0	38 702 622.70
Turnover 2009	594 503.95	4 257 155.29	0	68 990 860.70

Source: elaborated by the authors

Table 3 presents the ratio values that were calculated. In this case, it was not calculated ratios for all enterprises. We had to eliminate enterprises which had some missing values, as well the ones with a negative equity. For these were not calculated the ratio of return on equity. There is negative return on equity on average across the time horizon under consideration, making this sector unattractive. The return on equity in these three years has been volatile despite being always negative. It becomes emergent to detect the factors that drive return on equity. The turnover of tourism recreation enterprises grew in the years under review about 47% in average. However, in some enterprises there were breaks.

Table 3: Descriptive statistics of ratio variables

Variables	Mean	Sd	Variables	Mean	Sd
Net ROE 2009	-35%	1.66	Net Profit. of sales 2009	-44,17%	1.29
Operational ROE 2009	-26.14%	1.64	Net Profit. of sales 2010	-349%	44.37
Net ROE 2010	-98.47%	7.78	Net Profit. of sales 2011	-187%	11.1
Operational ROE 2010	-84.57%	7.07	Operational return on sales2009	-39.09%	1.23
Net ROE 2011	-53.61%	4.05	Operational return on sales2010	-343%	44.36
Operational ROE 2011	-45.53%	3.96	Operational return on sales2011	-182.29%	11.06
Growth	46,78%	2,75			

Source: elaborated by the authors

When analysing Spearman's Rho for the return on equity (2009, 2010 and 2011) with variables that characterize the size (turnover and headcount), it was found some significant weak associations since the correlation coefficient is between 0.28 and 0.151. This correlation is positive, indicating that the size of a tourism recreation enterprise influence positively the profitability. Large tourism recreation enterprises tend to achieve greater profitability. So, the H1 is not rejected.

When analysing Spearman's Rho of the return on equity (2009, 2010 and 2011) with turnover growth, it was found some significant moderate associations only for 2011, thus the correlation coefficient is between 0.40 and 0.36. This correlation is positive, the turnover growth of a tourism recreation enterprise influence positively the profitability. Tourism recreation enterprises tend to achieve greater profitability with a turnover growth in the recent past. So, the H2 is not rejected.

The Spearman coefficients between return on equity and return on sales indicates a weak correlation (Correlation coefficient 0.134; Sig. (2-tailed) 0.034) between profitability and return on sales, only for 2010. Nonetheless, this correlation was statistically significant. Contrary to what was hypothesized, for 2009 and 2011, it was not possible to find an association between these two variables. So, only for 2010, H3 is not rejected.

CONCLUSIONS

In literature corporate profitability has been the research subject of in various areas. In this case, the object of the present study is to analyze the main determinants of the tourism recreation enterprises profitability. Accordingly with different studies there are various possible determinants that can be used: size, age, growth, fixed assets, debt, innovation, liquidity, return on sales, market share and working capital. In this study we have opted to analyse of the impact of three variables (size, turnover growth and return on sales) on the profitability of tourism recreation enterprises. It was analysed financial information of 291 tourism recreation enterprises and maritime-leisure operators for the financial years of 2009, 2010 and 2011.

The results corroborate the arguments of several studies. There is a positive relation between the size of Portuguese tourism recreation enterprise and their return equity, which confirms the ideas referred by Majumdar (1997), Nunes *et al.* (2009) and Serrasqueiro & Nunes (2008). Turnover growth in the recent past of Portuguese tourism recreation enterprises influences positively their return on equity, confirming Nunes *et al.* (2009) conclusion. However, it is risky to claim a relation between return on sales and return on equity because it was only found a weak association in 2010.

Concluding, if Portuguese tourism recreation enterprises want to increase their profitability, it will be expected that they become small or medium enterprises and that they should increase their sales. Thus, to increase their profitability they should drive the management for a growth in terms of turnover and employees. In the long turn should be promoted a sustained sales growth. Return on equity is a ratio widely used by enterprises owners. In terms of managerial implications, profitability is considered one of the most important goals of an enterprise. Ratios are useful tools because they allow the managers make better decisions. The increase or maintenance of profitability allows the survival of an enterprise in the market. Tourism recreation managers must optimize the process of decision-making. So, if they know the factors that affect positively and negatively the enterprises profitability, they will decide in order to transform these factors in what they need. We studied a few determinants, but according with the literature there are more factors that can influence the profitability of tourism recreation enterprises. We believe that there is an opportunity in analysing with more details these findings in future research projects and extended this research to recent years. This study could also help academic institutions to define their research orientation.

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HOUSEHOLD BUDGET OF LOW-INCOME FAMILIES IN RIO DE JANEIRO A SEGMENTATION STUDY

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ABSTRACT

This study contributes to the knowledge of the expenditure patterns of low-income consumers living in Rio de Janeiro by identifying segments through the analysis of their household budget, based on data collected for the Brazilian Consumer Expenditure Surveys of 2002-2003 and 2008-2009. Four segments were identified. An increase in satisfaction with the standard of living and consumption was found in the period covered by the two surveys. The trend was for households to migrate segments, showing a broader spectrum of consumption and improvement in the reported amount and quality of food they consume. The changing pattern of consumption may have been influenced by macroeconomic factors and government social programs.

Keywords: Household budget; household consumption; segmentation of the low-income market

INTRODUCTION

In recent years, the minimum wage has increased in real terms, resulting in growth in income for the population in the lower socioeconomic classes. Such growth, coupled with the increase in the supply of credit and social programs implemented by the federal Government, facilitated low-income citizens' access to consumption and caused households to change the way they allocate the household budget.

Companies tend to view the low-income population as a homogeneous market, where everyone has similar characteristics, desires and consumption behaviours. However, a study (Silva & Parente, 2007) carried out using secondary data indicated that, in the city of São Paulo (the largest in Brazil), several segments could be identified.

One of the possible ways of studying their consumption is by examining household budgets. The Pesquisa de Orçamentos Familiares ("Consumer Expenditure Survey," hereafter "POF"), conducted by the Brazilian Institute of Geography and Statistics (IBGE), provides information on the composition of the budget of Brazilian households and their living conditions, thereby constituting an important and rich database.

This study sought to contribute to knowledge on the consumption patterns of low-income families, now in the city of Rio de Janeiro (the second largest in the country), by analysing the composition of their household budget over a period of time. Analysis was conducted on data collected in 2002-2003 and 2008-2009.

THEORETICAL FRAMEWORK

Within academia, there is no consensus as to how to characterize the low-income consumer. Some authors, such as Chauvel and Suarez (2009) have used social class. Others, such as Grossi, Motta and Hor-Meyll (2008) and Silva and Parente (2007), have used household or per capita income.

Studies also have identified certain characteristics of low-income consumers. Parente (2008) found that low-income consumers have more conservative attitudes relative to wealthier consumers. Castilhos & Rossi (2009) identified strong family ties. Abundance is a reaffirmation of their identity - the bountiful table is a source of pride for the poor, distinguishing them from the "very poor" (Castilhos & Rossi, 2009).

The poorest feel completely demeaned and excluded by their low purchasing power, as though they were part of an inferior class. They will do anything to show that they are worthy and honest, for they fear being confused with thugs and scoundrels (Chauvel & Suarez, 2009).

Loyalty to famous brands is a reflex of the quest for social inclusion and participation in consumer society. It also can be a function of the quality assurance that the brand symbolizes (Chauvel & Suarez, 2009; Grossi, Motta & Hor-Meyll, 2008).

Although consumption and the very act of shopping are regarded as moments of leisure, representing power and satisfaction, such feelings run head to head with the frustration arising from financial limitations. Low-income consumers have similar financial restraints, but they are not a homogeneous group, as shown by segmentation studies which have identified significant differences among them. Silva and Parente (2007) analyzed POF data from 2002-2003 to identify spending profiles of the low-income population in São Paulo, and showed that the low-income families do not constitute a homogeneous segment; rather, five segments were identified, with different patterns of consumption.

Another study, Castilhos and Rossi (2009) found that the residents in a community in Porto Alegre (southern Brazil) segmented the "poor" into three subclasses: the "poor-poor," whose basic needs such as food and housing went unmet; the "poor," whose housing and food needs were satisfied, albeit minimally; and the "shanty-town elite," i.e., local merchants, with better houses, who related to each other thereby creating a closed group. Disregarding any possible regional differences involved, it can be said that the studies cited point to the existence of different groups in terms of budgetary constraints, lifestyle and cultural values.

Consumption of low-income households

Castilhos and Rossi (2009) suggested that certain consumer goods were central to organizing the everyday life of low-income households. Housing is the most valued and is where much of the budget is invested. Electronic goods serve as the link between the poor and modernity. Certain appliances, such as refrigerators and stoves are considered "basics", whereas the acquisition of furniture is related to a better standard of living.

Clothing is also valued: through garments, a person can hide their status as poor, especially in the case of young people. Food and the ethics of bounty have a relevant role and – unlike clothing – act as a primary means for the poor to affirm their identity and serve to distinguish them from those who must forgo necessities.

The analysis of the structure of spending is often done according to the household income and regional differences because, in the case of Brazil, these variables are relevant to defining the profile of household consumption.

Silva (2004) proposed that the level of household income influences the household budget and consumption patterns. Different income levels drive different spending priorities; i.e., spending that is non-discretionary, essential and necessary for survival looms larger in the budget of the poorest households. Silva also identified other variables that influence the pattern of consumption: the stage in the life cycle of the family; the metropolitan region where they live; the head of household's level of education; the number of residents; and the characteristics of the household and the home.

As the pattern of spending is susceptible to changes in income, in order to study the influence of other variables, it is necessary to control for the variable income (Jannuzzi, 1997). This procedure was adopted in the study of Silva and Parente (2007), who used as parameters household income of between two and five times the Brazilian minimum wage.

Fustaino and Yamamoto (2009) investigated factors that contribute to the increasing of low-income consumer indebtedness; they found that as income increases, consumers become more vulnerable to consumption and increased indebtedness rather than experiencing a higher level of financial comfort. In addition, the consumption of items that offer excitement and happiness is responsible for additional debt; therefore it seems that credit is a contributing factor for addiction to consumption (Fustaino & Yamamoto, 2009). In Brazil, the supply of credit is a factor that drives consumption in the less favoured income brackets of society. The low-

income population is not attracted to savings account because of the low yields. The desire for immediate possession of goods has greater appeal than does saving, leading the low-income to acquire goods on credit.

Availability of income is the factor that differentiates the structure of household spending. Lower-income households prioritize spending on basic items, while households with higher purchasing power consume larger amounts and more diverse products and services. The proportion of spending on food decreases with increasing income.

The work of Heath and Soll (1996) shows that consumers always organize their budget by categories of expenses (food, housing, leisure, among others), and control their day-to-day spending on the basis of this budget. Some consumer opportunities arise only after setting the budget, which can sometimes underestimate or overestimate the resources required for a particular category. Inflexibility is a characteristic of the budget in order for it to be effective in controlling spending; however, the budget can change the choices consumers make, causing them to miss opportunities that may arise (Heath & Soll, 1996).

Chauvel and Mattos (2008) identified that low-income consumers' choices are based on scarcity of resources. The act of making the budget is a task that takes a lot of time and requires attention. Low-income consumers, in addition to surveying prices and prioritizing spending, must organize shopping in such a way as to use, in the best possible way, the available resources and thereby avoiding waste.

METHOD

The research is based on secondary data collected on the POFs of 2002-2003 and 2008-2009. Data collection is via house-to-house sampling. The variables surveyed include characteristics of the residence, spending, income, and economic outlook. Spending is divided into monetary and non-monetary and open in the categories of food, housing, clothing, transportation, hygiene and personal care, health care, education, recreation and culture, tobacco consumption, personal services and miscellaneous expenses.

Household income from one to three times minimum wages was used as the criterion for delimitation. The income brackets considered in the two periods are R\$ 240.00 (US\$ 74.73) to R\$720,00 (US\$ 224.21), and R\$465,00 (US\$ 228.04) to R\$ 1,395 (US\$ 684.13) respectively. Only monetary spending, either cash or on credit, were taken into consideration. Moreover, only families residing in the metropolitan region of Rio de Janeiro were included, in order to reduce the impact of the geographical factor in the budget and to allow for a broader analysis of the range of families. The final sample comprised 187 households (2002-2003 POF) and 355 household (2008-2009 POF), representing 800,833 and 1,203,864 households, respectively. The sample is representative for the metropolitan region of Rio de Janeiro, thus the results can be generalized to the population.

About half the households had higher total expenses than total income. In order to keep them in the study, a cluster analysis was conducted using the percentages of each category of monetary spending relative to total spending. To define the clusters, the squared Euclidean distance was adopted as a measure of similarity. The variables were standardized as standard scores (z-scores).

Initially, hierarchical clustering was used to define the clusters, because there was no prior information about the number of groups (Johnson & Wichern, 2007). All agglomerative algorithms were tested (simple link, complete link, average link, centroid method and Ward's method) and dendrograms were analysed. The best results were found with Ward's method. Based on the dendrogram, the data could be split into 3 to 5 clusters. The non-hierarchical (K-means) method was then applied for 3, 4 and 5 clusters. After analysing each of the options, the data were evenly divided into four clusters.

Other variables appearing in the POF were used to delineate the profile of the clusters, such as demographic variables, housing, and general assessment of living conditions. The same methods and procedures were adopted for the two POFs, in order to enable a comparison of the results.

RESULTS

Most of the segments present the greatest percentage of spending concentrated in food and/or housing – basic items for low-income consumers – although there is clearly heterogeneity between groups in the two POFs considered. Based on these results, and considering other POF variables such as demographics, housing and general assessment of living conditions, a closer look at the profile of each segment may be made.

Segments in the POF 2002-2003

Preparing for the future - the second largest, composed of 50 households (27% of the sample). Compared to the others, has spending on food and housing, accounting for 47.5% of total expenditure. Above average spending for education (1.1%), recreation and culture (1.3%), personal services (1.2%), and clothing (5.3%), it is the segment that allocates the most resources to these categories. Spending on increasing assets (1.1%) is slightly above average. Significant spending on transportation (26.7%), the highest among the groups. Younger head of the household (average 40 years of age), the group has the highest number of residents in the household (3.4). As the segment has balanced spending among the main categories (food, housing and transportation) and above-average allocation of resources on recreation and culture, personal services and increasing assets, one can infer that these households have greater concern about the future.

Risk Averse - consisting of 40 households (21% of the sample), the main expenditure is housing (59.9%), which, along with food, accounts for 71.8% of income. The households have an largest average gross income of R\$ 528.10 (US\$ 164.45) (R\$ 741.30/ US\$ 363.54 in 2009) and the lowest number of residents per household (2.2). It has the largest number of households in debt, perhaps because they already have a good part of gross income committed to housing costs. For this reason, the segment was termed "risk averse."

Competent managers - composed of 35 households (19% of the sample), it is the smallest and the one with the lowest spending on food and housing, which, combined, account for 46.8% of total expenditure. The segment is notable: 28.8% of its expenditure is allocated to health care and 1.4% to increased assets – the highest among the groups. Average gross household income is R\$ 503.00/ US\$ 156.64 (R\$ 706.10/ US\$ 346.28 in 2009); average number of residents per household is 2.7. Their spending management is more efficient, the smallest proportion of the budget is allocated on basic items (food and housing), and may allocate part of the budget to other expenses, especially increase in assets.

Survival Managers - the largest segment, with 62 households (33% of the sample). Spending is focused on food (53.9%); indeed, this group spends the most on food and housing (73.6%), leaving little room for other expenditure. The average number of residents is 3.4, and the average gross income is R\$ 486.10 / US\$ 151.37 (R\$ 682.40 / US\$ 334.66 in 2009) is the lowest, In presenting the highest percentage of spending on food and housing and for having the lowest gross income, it can be said that these households are true survival managers. One notable fact is that most households in the segment are dissatisfied with the amount and quality of food.

Segments in the POF 2008-2009

Competent managers - the largest segment, composed of 120 households (34% of the sample). More than half of spending is devoted to food (25.8%) and housing (34.5%). The segment has above-average spending on health care (6.4%) and increased assets (1.6%), spending the most in these categories. The households have above-average spending on education (1.6%) and clothing (5.2%). Average gross household income, R\$ 1,007.90 /US\$ 494.29, is the highest and the average number of residents is 2.8. Households in this group were regarded as competent managers because they have the lowest percentage of the budget allocated to basic expenses (food, housing and transportation), which allows them to allocate resources to other categories.

Risk Averse - composed of 69 households (19% of the sample), it is the smallest. The highest expenses are on housing (62.2%), which, along with food, represent 75% of total; thus, this group spends the most on these categories. Health care costs also stand out and are above average (5.8%). The households have an average gross income of R\$ 899.90 /US\$ 441.32, the lowest of all, and also the lowest number of residents per household (2.3). It has the lowest gross income. Housing and food expenses are significant, leaving little room for other expenses, which may lead to more risk-averse behaviour.

Preparing for the future - composed of 79 households, (22% of the total sample), it is the second smallest. This segment spends the least on food and housing, which, added together, correspond to 43.9% of spending. The group has above-average spending on education (1.9%), recreation and culture (1.7%), personal services (1.6%), clothing (5.9%), and allocates the largest percentage of the budget for such categories. It also has above average expenditure on increased assets (1.1%), high transport costs (33.3%), the second-highest average gross income (R\$ 987.50/US\$ 484.28), and the largest average number of residents per household (3.1). Similarly to the previous POF (2002-2003), this group allocates less of the budget to food and housing and more on increasing assets. Also here, the segment was named "preparing for the future."

Survival Managers – it is the second largest segment, consisting of 87 households (25% of the sample). Food and housing expenses add up to 70.4% of the total expenditure, most of this (51.7%) allocated to food. Along with the "Preparing for the future," it has the highest average number of residents per household (3.1). Average total gross income is R\$ 950.30/US\$ 466.04, corresponding to the lowest per-capita income (R\$ 306.55/US\$ 150.34). Insofar, as they have the lowest gross income and spend more on food and housing compared to other segments, they can be seen as survival managers.

Comparison between the Two POFs

Most of the categories saw an increased share in total expenditure. Only food, health care, and clothing saw a decrease in the percentage of spending between 2002-2003 and 2008-2009. In general, the main expenses remained the same in both periods, with 70% to 75% being earmarked for food, housing and transport.

Average gross household income (corrected by inflation index for the period) had a real increase of 37% in the 6-year period. The average years of education of householders also increased by 33%, while the average number of household residents and age of head of household remained virtually the same.

The assessment of living conditions – represented by the ease or difficulty of the household to reach the end of the month on their income – showed improvement: in 2002-2003, 45% of householders reported "great difficulty" to make ends meet on the household income; in 2008-2009, the percentage decreased to 27% while at the same time 11% reported they got the end of the month "somewhat easily" (sum of responses "somewhat easily," "easily," and "very easily") to live on their income, compared with 4% observed in 2002-2003. Table 1 presents a summary of the segments identified, based on the 2002-2003 and 2008-2009 POF data, to facilitate a comparison of the consumption profiles in the two survey periods.

Table 1: Comparison of the segments in the period

<i>2002-2003</i>	<i>% of households</i>	<i>2008-2009</i>	<i>% of households</i>
<i>Segment</i>		<i>Segment</i>	
<i>Preparing for the future</i>	26.7%	<i>Competent managers</i>	33.8%
<i>Risk averse</i>	21.4%	<i>Averse to risk</i>	19.4%
<i>Competent managers</i>	18.7%	<i>Preparing for the future</i>	22.3%
<i>Survival managers</i>	33.2%	<i>Survival managers</i>	24.5%

The consumption profiles remained virtually the same in both periods and showed only slight changes. However, the number of households that make up each profile changed significantly. In 2002-2003, the "preparing for the future" segment was represented by 27% of the households and was the second largest group. In 2008-2009, the segment, which received basically the same share of the budget – albeit with a higher percentage of expenditures in the categories – represented only 22% of the total and was therefore the second smallest. Thus, note that the percentage of low-income households in Rio de Janeiro with this spending profile decreased from 2002-2003 to 2008-2009.

The second segment found in 2002-2003, "Risk Averse," represented 21% of households, and can be compared to the second group found in 2008-2009. The latter is the smallest segment, consisting of 19.4% of the total. Apparently, this consumption profile was the most stable during the period.

"Competent Managers," representing 19% of households in 2002-2003, is the smallest group and presents similar characteristics to the first group found in 2008-2009. However, in 2008-2009, in addition to being the largest segment, with 34% of all households, the group also presented above average spending for categories such as education, personal services and transportation, and had a consumption profile that was broader and more balanced than that of 2002-2003.

The segment "Survival Managers" was the largest group in 2002-2003, representing 33% of households. In 2008-2009, however, it was the fourth segment found: it had the same composition of expenditure, yet corresponded to 25% of all households, a significant decrease.

The analysis of the segments found in the two periods suggests that basic items – especially food – account for an ever-smaller portion of the budget of low-income households in the city of Rio de Janeiro. These households began to spend more on education, recreation and culture, personal services, personal care products and increasing their assets.

Certain economic factors may have influenced this change in consumption pattern. (i) the real increase in the minimum wage (66% from 2002 to 2009) in the period generated growth in household income;. (ii) the growth of the supply of credit in Brazil, with a 224% growth in lending from 2000 to 2010;. (iii) the implementation of government social programs targeting low-income households; and (iv) the increase and improvement of employment (PME, 2011).

From 2002-2003 to 2008-2009, the percentage of households that reported the quantity of food is always sufficient grew from 29% to 52%, and the percentage of households who said the food consumed is always of type they want increased from 8% to 25%. It is still possible that the greater access to credit may have contributed to the increased expenditure on categories such as education, recreation and culture, personal services, hygiene products and increased assets. These results are consistent with previous studies: even in the face of budget constraints, the low-income consumer seeks the consumption of other products and services to satisfy their more subjective needs, such as raising self-esteem.

CONCLUSION

In the metropolitan region of Rio de Janeiro, four segments with distinct profiles were identified. In all segments, in the two periods studied, at least 40% of spending is allocated to food and housing. This fact can be understood in terms of food and housing – which are basic items – garnering priority allocation in low-income household budgets. Although they are unable to fully meet their food and housing needs, they manage to allocate part of their budget to discretionary spending.

It is interesting to note that, from 2002-2003 to 2008-2009, the consumer profiles did not show major changes. However, the number of households in each segment changed significantly: in 2002-2003, the largest segment was "Survival Managers," with spending on food being the salient characteristic; in 2008-2009, the largest segment was "Competent Managers," presenting more balanced spending, with 60% allocated to food and to housing and above-average spending on health care, increased assets, education, personal services and clothing. Therefore, it seems that, in the period analysed, there was a migration of lower income households to other segments, which is an evidence of improvement in their living conditions.

Most of the household that, in the 2002-2003 sample, spent mainly on basic items began to consume more in other categories, which resulted, in 2008-2009, in a considerable increase in the number of households with a more diversified consumption profile. There is also an improvement in quality of life represented by satisfaction with the quality and quantity of food consumed and the increase in the percentage of households who say they can get to the end of the month "somewhat easily" on their income.

Probably the change in the standard of consumption was influenced by macroeconomic and social factors. The growth in income – generated by the real increase in the minimum wage, by the growth in credit supply, by the social programs launched by the federal Government, and by the increase/improvement in employment – is probably the most important cause of the evident improvements.

However, one cannot overlook the fact that, from 2008 on, a "pacification" process in underserved communities was carried out in the city, which has undoubtedly made a positive contribution to the quality of life for the low-income population. Some examples are the decrease of local crime and the resulting valuation of public and private spaces around slums, as well as the greater supply of public utility services, which acts as a driver for new investments, private initiatives and entrepreneurship. Different strategies are being adopted by several companies with the goal of broadening their participation in the low-income neighborhoods. Some examples are cable companies, domestic appliance and consumer electronic outlets, which have established points of sale or service in these areas, thus attracting and encouraging households to consume new products and services.

In short, both macroeconomic and social factors have contributed to the clear improvement of the standard of life of low-income households in Rio de Janeiro. However, it is worth drawing attention to the impact of credit on this scenario. If, on the one hand, credit has been crucial to leverage consumption, in the present it may be limiting to the extent that household indebtedness grows. The same argument can be made with respect to expectations of inflation and economic growth in Brazil. Weak prospects for economic growth compromise business investments and consequently the employment. High prices increases acts as a regressive tax, which significantly impacts the lower income strata. Thus, even small price increases are cumulative over time and therefore tend to negatively affect the quality of life.

For marketing managers, the results confirm that, also in the the city of Rio de Janeiro, the stratum represented by low-income consumers is not homogeneous. It would be interesting to devise strategies of segmentation based on the consumption patterns of these markets. Through segmentation, companies can identify categories of expenditure and, in more detail, study the profile of consumers of each segment, allowing more accurately define target audiences and marketing strategies to be employed.

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SCHOOL FACILITIES AS CHOICE FACTOR CONSIDERED BY PARENTS SELECTING INDEPENDENT PRIMARY SCHOOLS IN SOUTH AFRICA

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ABSTRACT

Parents have become consumers in an educational market and schools find themselves operating in a competitive space. The primary objective of the study is to recommend marketing guidelines for independent primary schools, with the focus on physical evidence, and more specifically school facilities in the marketing mix. The methodological approach followed was exploratory and quantitative in nature. The sample represent 669 respondents from 30 independent schools in the Gauteng province of South Africa and data analysis included descriptive and factor analysis. The main findings is that a computer centre is regarded as the most important school facility for parents when selecting an independent primary school, followed by a library and sport facilities.

Keywords: Independent schools, school marketing, consumer behaviour, consumer decision-making process, choice factors, school facilities

INTRODUCTION

The demand for quality education in schools is growing in South Africa, as parents recognise the importance of quality education for their children in an increasingly competitive environment (Read & Bick, 2014, p.18). Parents in South Africa are entitled to enrol their child at any school and are not forced to enrol their child at the nearest school (Van Wyk & Bisschoff, 2012, p.431). The number of independent schools in South Africa has grown from 518 in 1994 to 1 681 independent schools in 2014 with the majority of these schools (651) in the Gauteng province (Department of Basic Education, 2014). The growth in independent schools are driven by a growing middle class in South Africa wanting high quality education (Hasenfuss, 2011). Parents are better informed about school choices (Petruczellis & Romanazzi 2010, p.149) and do their own research regarding where to enrol their child (Molland, 2007, p.22). The school decision-making process for parents is difficult (Lombard, 2015) and consists of the pre-purchase stage, the service encounter stage and the post-encounter stage (Wells & Foxall, 2012, p.128). This paper will focus on the third stage in the *pre-purchase stage*, namely the evaluation of alternatives and more specifically on school facilities as choice factor when parents select independent primary schools. Evaluation criteria are the criteria which consumers decide are acceptable when searching for a solution to their problems and are those features or characteristics that consumers are looking for when buying a specific product or service (Hawkins, Mothersbough & Mookerjee, 2010, p.649).

LITERATURE STUDY

Private tuition is a growing business in South Africa and the demand for good and accountable schools has been driven both by parents desperate to escape the worst of the public system and the lack of new schools, despite the needs of a growing population (Weavind, 2013). The marketing of independent schools is evident at most independent schools in South Africa and is illustrated where independent schools is a member of the Independent Schools Association of Southern Africa (ISASA). These schools will be part of the Independent

Schools' Marketing Association (ISMA) which is recognised as an affinity group and stakeholder of ISASA with the objective to promote marketing efficiency among the schools served by each of its members (ISASA, 2015). Sferle, Gărdan, Gudei & Geangu (2012, p.765) define school marketing as the means by which the school actively communicates and promotes its purpose, values and products to learners, parents, staff and the wider community. Themes covered by research in school marketing include the attitudes of school principals and other stakeholders towards the concept of marketing, the lack of research in school marketing, and general literature on "How to market your school?" (Oplatka & Hemsley-Brown, 2004, p.375). Research in South Africa on the topic of school marketing include research by Immelman & Roberts-Lombard (2015, p7), Read & Bick (2014, p18), Vigar-Ellis (2013, p6), Van Wyk & Bischoff (2012, p415), McAlister (2006, p2) and Malherbe (2004, p8). Service providers such as schools have to understand *consumer decision-making*: how consumers choose between different offerings and how they experience and evaluate the service offerings (Blythe, 2013, p.3). The decision-making process of services consists of the *pre-purchase stage*, the *service encounter stage* and the *post-encounter stage* (Wells & Foxall, 2012, p.128). This paper focuses on the third stage in the *pre-purchase stage*, namely the evaluation of alternatives. In the context of this study, the evaluation of alternatives is the choice factors of parents when selecting independent primary schools with specific reference to school facilities.

Research into choice factors for parents selecting independent schools is amongst others by Yaacob, Osman & Bachok (2014, p.250), Kelly & Scafidi (2013, p.11), Vigar-Ellis (2013, p.8), the Independent Schools Queensland Survey (ISQ, 2011), Independent Schools Council of Australia (ISCA, 2008), Robinson (2008, p.17), Denessen, Driessena and Slegers (2005, p.354), Foskett and Hemsley-Brown (2001, p.83) and Gorard (1999, p.31). It must be stated that the study by Vigar-Ellis (2013, p.8) includes both independent and high affluent public schools and as far as could be ascertained, was the only South African study with specific reference to choice factors that parents considered in the selection of some independent schools. The most important choice factors are presented in table 1.

PROBLEM STATEMENT AND OBJECTIVES

The problem statement is that some independent schools find it difficult to market themselves effectively as a result of a lack of information pertaining to what school facilities to offer prospective parents (Fourie, 2014). It is therefore important for independent schools to understand what parents desire and expect from the school they choose. Independent schools also have not made institutional research a priority and, as a result, often make critical or strategic decisions without the benefit of data or research (Symmonds, 2010, p.3). Against the background provided above, the primary objective of the study is to recommend marketing guidelines for independent primary schools in South Africa, with the focus on physical evidence, and more specifically school facilities, in the marketing mix. The secondary objective is to determine the relative importance of school facilities when selecting independent schools.

METHODOLOGY

The empirical investigation was exploratory and quantitative in nature. The population comprised all grade one parents from 651 independent primary schools in the Gauteng Province. A non-probability sampling approach was followed and the judgement sampling technique was applied. The data was gathered over a twelve-week period in 2012 with a structured questionnaire and a five-point Likert scale. Respondents were provided with a self-administered questionnaire or an Internet computer-assisted survey and the questionnaire included self-developed items. Suitable scale items considered reliability and validity was established. Items were developed from the literature review conducted to identify the choice factors for parents when selecting an independent school, and more specifically school facilities, as well as information gathered from interviews with parents.

A total of 669 questionnaires were completed and could be used in the analysis. The questionnaire was pretested in a pilot study involving 10 respondents from different independent primary schools in the Gauteng Province who matched the sampling frame. The internal consistency reliability test was used to measure reliability. Validity was ensured by having the content of the questionnaire aligned with the research objectives. The data obtained from the questionnaires was coded, captured and edited. The Statistical Package for Social Sciences (SPSS version 18) was used to analyse the results. The data obtained from the field was coded and captured in a statistical software package. Factor analysis was used to assess the structural validity of the

questionnaire and exploratory factor analysis (EFA) was conducted to uncover the underlying structure of constructs. Respondents identified five physical evidence variables and these variables are categorised into one factor, namely school facilities. The purpose of identifying this factor through exploratory factor analysis (EFA) is to recommend marketing guidelines for independent schools, with the focus on school facilities.

Table 1: Most important choice factors

Most important choice factors	Source
School syllabus (curriculum), school facilities, academic performance of the school, quality of educators and location of the school.	Yaacob, Osman & Bachok (2014, p.250)
Better student discipline and learning environment, smaller class sizes, improved student safety and individual attention for the child.	Kelly & Scafidi (2013, p.11)
Safe environment, competent staff and management, strong value system, strict but fair discipline, character building and independence, nutritious food, strict and structured supervision, good sport facilities and academic performance.	Vigar-Ellis (2013, p.8)
Discipline, quality educators, the reputation of the school and academic performance.	Independent Schools Queensland Survey (ISQ, 2011)
Individual attention to the child, academic reputation, small class size, safety for the school environment, school fees and quality of academic facilities.	Symmonds (2010, p.6)
School facilities, educators, nurturing and caring environment, small class size and discipline.	Independent Schools Council of Australia (ISCA, 2008)
Academic standards, discipline and small classes.	Robinson (2008, p.17)
Academic performance, school climate and individual attention to the child.	Denessen, Driessena and Slegers (2005, p.354)
Tradition, subject choices, facilities.	Foskett & Hemsley-Brown (2001, p.83)
Academic reasons, location of the school, the management style of the school, discipline as well as security factors.	Gorard (1999, p.31)

Source: Researchers' own construct

RESULTS

Reliability and validity

Cronbach's alpha was used as a measure of the internal consistency reliability for the measurement of the importance of the attributes. The Cronbach's alpha coefficient for the school facilities construct investigated is 0.868 and above the limit of acceptability of 0.70. Validity can be attained by aligning the content of the questionnaire with the research objectives (Van Tonder & Ehlers, 2011, p.64). Consequently, the following activities were performed to ensure validity and reliability:

- A self-administrated questionnaire was designed, which was directly aligned with the research aim and objectives.
- A sufficiently large sample size was used to increase the accuracy of the results.
- The expertise of STATKON (the Statistical Consultation Services) of the University of Johannesburg was employed to analyse the data gathered and to ensure the correct measurements of the results.
- Factor analysis was used to assess the structural validity of the school facilities construct and exploratory factor analysis was used in an attempt to gain insight into the structural validity. The five items of the school facility scale are suitable for factor analysis (KMO of 0.864, which is > 0.6 and Bartlett's test of Sphericity is 0.000, which is smaller than 0.05 (Pallant, 2013:187).
- Communalities provide information about how much of the variance in each item is explained. Using Principal Axis Factoring as extraction method and Varimax for rotation, one factor explains a total of 64.54% of the variance.

Demographic profile of respondents

The majority of the 669 respondents from 30 schools in Gauteng were female and indicates that mothers are very involved in their child's education. With regards to home language, 43% of the respondents' home language is English and followed by 35% with Afrikaans as home language. Independent schools were traditionally supported by mainly English speaking parents, but more Afrikaans speaking families are supporting independent schools, due to more parallel medium schools opening recently, such as the Maragon Avianto private school, Midstream College and the Curro private school group. Almost 40% of the respondents had a post-graduate degree, followed by 15% with an undergraduate degree. This indicates that independent school parents are well educated and will make an informed decision when enrolling their child at an independent primary school. This is presented in table 2.

Table 2: Demographic profile of respondents

Variable	Overall	
	N	%
Gender		
Female	515	77
Male	154	23
Total	669	100
Home Language	N	%
Afrikaans	236	35.3
English	286	42.7
Nguni (IsiZulu, IsiXhosa IsiSwati, IsiNdebele)	44	6.6
Sotho (SeSotho s Leboa, Sesotho, Setswana)	75	11.2
Venda	10	1.5
Other	18	2.7
Total	669	100
Highest academic qualification	N	%
Postgraduate degree	266	39.8
Undergraduate degree	105	15.7
Higher diploma or diploma	192	28.7
Grade 12 (Matric)	100	14.9
Missing	3	0.4
Total	669	100

School facilities factors

Concerning the research objective, respondents identified five variables with regards to school facilities which could have influenced the choice of a parent when selecting independent schools. These variables are categorised into five types of school facilities and are presented in Table 3.

Table 3: School facilities factors influencing the decision-making process

Type of school facility	Percentage of respondents in each cell					Number of respondents	Mean	Standard Deviation
	Not important	Of little importance	Moderately important	Very important	Extremely important			
	1	2	3	4	5			
A science laboratory	9	11.1	19	28.9	31.9	664	3.64	1.28
A library	6	4.8	14.1	27.4	47.7	667	4.06	1.161
A computer centre	4.7	3.5	9.6	28.9	53.3	664	4.23	1.067
A classroom with technology	6.6	8.1	19.2	30	36.1	667	3.81	1.199
Sport facilities	6.4	6.1	19.8	30.1	37.5	667	3.86	1.175

From Table 3, the main finding is that a computer centre (mean = 4.23) is the most important school facility when parents select an independent primary school. This indicates that parents realised the importance of academics and technology. The school library is cited as the second most important school facility (mean = 4.06). More school libraries have electronic resources available and compliment the computer centre. Sport facilities (mean = 3.86) are the third most important school facility and may include facilities such as rugby- and soccer fields, tennis courts and astro hockey turf at some affluent independent schools. A science laboratory was cited the least important school facility factor, but still important for parents (mean = 3.64).

MANAGERIAL IMPLICATIONS

An understanding of which school facilities are important can assist independent schools in South Africa to market themselves better to parents when the latter are selecting an independent school for their child(ren). To accomplish this objective, it involves the coordination and combination of the marketing mix elements that enable independent schools to meet parents' needs. For the purposes of this paper, only recommendations with regard to physical evidence, and more specifically school facilities are applicable, because only the school facilities applicable to these marketing mix elements and the importance thereof were determined.

Physical evidence: For this study, physical evidence is limited to school facilities and consists of academic facilities (science laboratory, library, computer centre and a classroom with technology (interactive whiteboards and tablets) and sport facilities (e g rugby and soccer fields, tennis courts and astro hockey turf).

School facilities as a whole have moderate importance (mean = 3.92) when parents select independent schools. Specifically parents considered a computer centre as the most important school facility (mean = 4.23). The moderate importance of school facilities as choice factor corresponds with studies by Yaacob, et.al., (2014, p.250), Vigar-Ellis (2013, p.8), Symmonds (2010, p.6), Independent Schools Council of Australia (ISCA,2008) and Foskett & Hemsley-Brown (2001, p.83).

A marketing guideline recommended is that independent schools in terms of school facilities need to focus primarily on academic facilities, and more specifically a computer centre. It is recommended that independent schools frequently upgrade computers with the latest hardware and software. A computer centre can also be in the form of tablet computers, where each learner will access their textbook on the tablet and is

enhanced by other technology in the class room such as data projectors and interactive whiteboards. Although sport facilities are important for parents selecting independent schools, it is recommended that independent schools firstly spend their resources on academic facilities, as teaching and learning is the first priority of any school.

LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

The study focused on 30 independent primary schools in the Gauteng province of South Africa, representing 669 parents of a child enrolled in grade one. The study therefore cannot be seen as representative of the entire industry in the province or the country. As the study only focused on the Gauteng province and only independent primary schools, a more inclusive study of all provinces in South Africa (including high schools) is therefore recommended. It is also recommended that future research focus on high affluent independent schools in terms of school facilities.

CONCLUSION

Parents in South Africa can enrol their child at any school in the country and parents are not forced to enrol their child at the nearest school, but have a choice to enrol learners at their school of preference (Van Wyk & Bisschoff, 2012, p.431). Due to the competitiveness of independent schools, a better understanding of a specifically what school facilities parents prefer will assist these schools to better their marketing efforts in order to attract new learners and to more optimally position themselves in the independent school market. The findings of the study revealed that a computer centre is the most important school facility when parents select independent primary schools, followed by a library and sport facilities.

This implies that independent schools can improve their marketing efforts by especially ensuring that the school have a well-equipped computer centre. This could be enhanced by tablets and interactive whiteboards in the classroom. Further research needs to be conducted especially at independent affluent high schools in South Africa to examine school facilities as choice factor.

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HEALTH CARE SERVICE QUALITY IN SOUTH AFRICA – A RURAL IN- AND OUTPATIENT PERSPECTIVE

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ABSTRACT

The purpose of this paper is to examine the level of importance of services rendered by a health care facility (public hospital serving a rural community) and the perceived performance of the health care provider and to determine whether there are statistical significant differences between in patients and outpatients treated in the public hospital in South Africa. It was found that the most important as well as the best perceived construct is the assurance construct. For the inpatients the hospital should first attend to the responsiveness items of the hospital while for outpatients a similar result was found.

Keywords: Health care, service quality, rural area

INTRODUCTION

Offering an appropriate marketing mix to market the services of the hospital industry is vital. Combining the most suitable marketing elements, hospital service marketers can ensure that their marketing efforts satisfy patients' needs and meet organisational objectives. Health care managers are increasingly expected to demonstrate that their services offerings are customer-focused and that continuous performance improvement is being delivered (Büyüközkan & Çifçi, 2012). It is thus essential that customer expectations and experience of are properly understood and measured under the constraints that organizations must manage.

A number of international studies on health care marketing have been published the past decade such as the quality of the health care services (Al-Andaleeb, 2010; Al-Hawary, 2012; De Jager, Du Plooy & Ayadi, 2010; Al Hawary, 2012, Büyüközkan & Çifçi, 2012); the monetary and non-monetary cost of private and public health care (Saloner, Sabik, & Sommers, 2014), the impact of the physical environment of health care facilities on staff and customers (Graves, Symes & Cesario, 2014; Mahmood, Chaudhury, & Valente, 2011; Siddiqui, Zuccarelli, Durkin, Wu & Brotman, 2015; Steinberg, Denham, Zimring, Kasali, Hall, & Jacob, 2013); the promotion strategies applied by health care marketers (Lee, Han, and Lockyer, 2012, Stroeve, Mackert, McAlister & Hoelscher 2011; Yeoh, Othman & Ahmad, 2013), the effect of processes and people on the delivery of health care services (Bergman, Neuhauser & Provost, 2011; Etgar & Fuchs, 2009).

In the light of the above discussion the focus of this article on services quality in public hospitals. Research in this particular field of study will be reviewed in the next section, in order to familiarize the researcher with the latest developments in the area of research. Thereafter the methods used to design the study and the results will be presented. Finally, the article provides conclusions, summarizes the limitations and recommends areas for future research.

MARKETING OF HEALTH CARE SERVICES

Health service marketing is an emerging field that draws from traditional marketing theories and principles (Kapoor, Paul & Halder, 2011, Kotler & Armstrong, 2012; Thomas, 2014). The key principles and concepts applied to health care will be reviewed in this section. Marketing is the process of planning and executing the

conception, pricing, promotion and distribution of ideas, goods and services to create exchanges that satisfy individual and organisational objectives (Lusch, 2007). In order to facilitate the exchange process marketers need to examine the needs and wants of customers, develop a product or service that satisfy these needs, offer it a certain price, make it available through a particular place or channel of distribution and develop a program of promotion or communication to create awareness and interest. These elements have traditionally formed part of the marketing mix that consists of product, price, place and promotion (Belch & Belch, 2012), while three additional elements (physical evidence, process and people) are added in the context of a service such as the health care.

Product and Price

Health care marketing can be explained by applying the elements of the services marketing mix. Products consist of tangible goods, services or ideas that are offered to a market for attention, purchase, use or consumption, or for satisfying needs (Kotler & Armstrong, 2012). In this setting product represents the health care services offered by health care organisations or the benefits to consumers of using particular services in specific contexts. Hospitals offer a wide range of goods and services in the form of different medical procedures supported by medical supplies and -equipment (Thomas, 2014). The core service of a hospital entails the correct diagnoses of the disease followed by appropriate treatment and operations if needed, while supplementary services (tangible evidence such as the cleanliness in the services, promptness in attending to patients needs and empathy of the staff) offered in the hospital also influence customers evaluation of the overall service quality (Kapoor et al., 2011).

Another element of the marketing mix is price. This refers to the total monetary value and other sacrifices that consumers exchange and make for the benefits of owning and using the product or service (Kotler & Armstrong, 2012). Thus a healthcare provider offers a service in exchange for its customers' money. It also includes non-monetary cost such as their time spend, emotional distress and the disease or injury that prompts the experience. All these sacrifices must be perceived as worthwhile in terms of the benefits offered by the health care provider (Thomas, 2014). The non-monetary cost to the customers may be reduced through more efficient and responsive staff and systems, but are rarely eliminated altogether (Kapoor et al., 2011).

Place and Physical evidence

Place means to distribute the offers to make them available to consumers (Kotler & Armstrong, 2012). Health care providers should consider the impact of all factors that can influence patients' access to health care such as the location and layout of the hospital, operating hours, access procedures, and waiting time for treatment (Thomas, 2014). They should minimise the negative place aspects of the encounter such as lost time, frustration, boredom, or other emotional states (Kapoor et al., 2011). Proper design and management of the physical environment of hospitals have proven to benefit patients as well as staff (Graves, Symes & Cesario, 2014; Mahmood, Chaudhury & Valente, 2011; Siddiqui, Zuccarelli, Durkin, Wu & Brotman, 2015; Zimring, Kasali, Hall, & Jacob, 2013; Zimring, Joseph & Choudhary, 2004).

Promotion or marketing communication

Customers must be communicated about the offering and persuade them of its merits. This market-initiated communication aspect of the marketing mix element is known as promotion or marketing communication: a collective term used when referring to all the methods and techniques employed to direct the consumers' attention to a specific offering, with the aim of influencing their attitudes and behaviour (Kotler & Armstrong, 2012). Generally promotion includes advertising, sales promotion, personal selling and publicity (Belch & Belch, 2012), but instead of undertaking aggressive promotion, hospitals rely mostly on health promotion, word of mouth (WOM), and more recently on social media (Johnson & Baum, 2001; Lee, Han & Lockyer, 2012; Stroeve, Mackert, McAlister, and Hoelscher, 2011; Yeoh, Othman & Ahmad, 2013).

Process and People

Process is the operational flow of activities for the efficient delivery of services a hospital or other health care facilities. The various medical service encounters can be categorized into three distinct classes according to the severity of the medical problems involved, degree of routine of the interactions and patients' involvement. On one end of such scale one finds consultations with doctors dealing with routine medical problems and with whom patients develop long run relationships. Those usually involve appointments at a family doctor or general practitioners, paediatricians and gynaecologists. On the other end of the scale, one finds emergencies and complex treatments that require invasive procedures for instance open-heart surgeries and major surgeries. Those are rendered in hospitals and large medical centres. In the intermediate position one finds medical service provided by specialists who diagnose and recommend treatments for a variety of illnesses and health problems which require specific expertise but which do not involve emergency situations and extensive treatments, such as orthopaedics, ear and nose problems and dermatology (Etgar & Fuchs, 2009).

The significance of staff in the marketing of hospital services is captured in the people element of the services marketing mix. People include all of the human actors who play a part in service delivery and thus influence the customers' perceptions- namely the firm's personnel, the customer and other, and other customers in the service environment (Kapoor et al., 2011). People in the hospital; doctors, nursing staff, paramedical staff, front office executives, supporting staff and others, are critical to the success of a hospital. The unavailability of doctors and nurses, as well as their negative attitudes and behaviours, can be major barriers to the utilization of public hospitals (De Jager, Du Plooy & Ayadi, 2010).

SERVICE QUALITY AND SATISFACTION OF HEALTH CARE SERVICES

Quality of health care is defined by Palmer (1991) as the production of improved health and satisfaction of a population within the constraints of existing technology, resources and consumer circumstances. Parasuraman, Zeithaml and Berry (1988) describe service quality as a form of attitude, related, but not equivalent to satisfaction that results from a comparison between expectations and the perceived performance of the health care provider. Therefore if expectations are met or exceeded by perceptions, service quality is satisfactory. Arsali (2005) agrees that service quality has an effect on patient satisfaction while Holder and Berndt (2011) reports that a hospital's service quality deals with the service expectations of its patients and is reflected in their satisfaction. Delivery of service quality to customers is required in the long run if the organisation is to experience the benefits of customer loyalty. Service quality also impact customer loyalty in health care (Zeithaml, Bitner & Gremler, 2006 as cited by Holder & Berndt, 2011).

The use of service quality as a concept has aroused considerable interest and debate in the research literature, because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Parasuraman et al., 1985). SERVQUAL which is the widely used model of service quality, focuses on the functional-quality dimension. This model, views service quality as the gap between the expected level of service and customer perceptions of the level received (Parasuraman et al., 1985, 1988). SERVQUAL identified five determinants of service quality:

- reliability; ability to perform the promised service reliable and accurately
- assurance; knowledge and courtesy of employees and their ability to inspire trust and confidence.
- tangibles; physical facilities, equipment and appearance of personnel. service.
- empathy; caring, individualised attention provided to customers
- responsiveness; willingness to help customers and provide prompt service.

This model is grounded on some fundamental assumptions: This is that the evaluation of service quality is more difficult for consumers than goods quality; service quality perceptions result from a comparison between patients' expectations and the perceived performance of the service provider and quality evaluations are not made solely on the outcome of a service but involve the evaluation of the process of service delivery. In addition the five abovementioned constructs conceptually address, respectively, performance standards, expertise and physical elements of the facility and employees (Parasuraman et al., 1988). SERVQUAL is widely used by

academics and practitioners to measure service quality (Wong, 2002). All five SERVQUAL dimensions were measured for the public hospital in this study.

PURPOSE OF THE RESEARCH

The purpose of this study is to examine the level of importance of services rendered by a health care facility (public hospital serving a rural community) and to determine whether there are statistical significant differences between in patients and outpatients in a public hospital in South Africa. The specific objectives of the study are as follows:

- To determine if equality exists between in- and outpatients for the service provided to patients in a public hospital in South Africa (expectations).
- To determine if equality exists between in-and outpatients for the service provided to patients in a public hospital in South Africa (perceived performance).
- To determine whether the expectations of in- and outpatients on how hospital staff and facilities respond to their needs in terms of the service variables are met (satisfaction).

RESEARCH METHOD

A quantitative strategy of enquiry in the form of survey research was used for this study. A structured questionnaire that was used in a similar survey was distributed to patients in a public hospital in the Limpopo province where the survey took place. Environmental Health Practitioners based in the hospital administered the questionnaires by distributing them to selected respondents. All the respondents that were able to participate in the survey were then approach to complete the survey. The response rate was not satisfactory in the first round and two full time field workers from the local community where appointed to administer the questionnaire to assist respondents who could not read or write. It is during this round where a total of 569 questionnaires were completed by both in- and outpatients. The attitudes of the patients were tested regarding certain pre-identified service quality aspects related to services rendered in health care.

Measuring instrument

The measuring instrument as indicate before was used on a previous occasion for a similar research in public health hospitals around Gauteng hence there was no need to pre-test it. Therefore this instrument enabled the researchers to test the formulated hypothesis based on the formulated assumptions. The relevant aspect for this article will be reported, namely the level of expectations with various services in the public health facility and the perception of patient with regards to the performance of the hospital in rendering various services.

The two dimensions represented a mirror-image of each other. A five -point Likert type scale was used to measure the levels of perceived performance of the hospitals as well as the expectation levels of the patients. Respondents were asked to indicate their evaluation in both out-patient facilities and in-patient facilities of the hospital on the scales in which 1 = very important (excellent), 2 = important, 3 = not important nor unimportant, 4 = not important and 5 = not important at all (not good at all). The measuring instrument consisted of three parts. The first section captured the demographic characteristics of the respondents; the second part the dependant variables such as empathy, responsiveness, reliability, courtesy and assurance. The last part captured the independent variable. This was measured by requesting the patients to rate the overall perception of quality care received. The validity of the questionnaire was based on previous surveys in which the same instrument was used though with minor adjustment to suite the local environment (rural hospital). The original 22 variable SERVQUAL questionnaire were adjusted to cater for the South African situation and a total of 35 items were used to measure the service quality of the hospital. An item analysis was carried out to test the validity and the reliability of the questionnaire and an overall Cronbach coefficient Alpha of 0.9453 and 0.9122 were measured for expectations and performance respectively.

Sample and data collection

A total of 600 questionnaires were distributed amongst in- and out- patients in a public health care facility in Limpopo, one of the nine provinces in South Africa. A total of 569 useable questionnaires were obtained which represent 95% of the total number of questionnaires distributed. This high response rate could be attributed to the use of professional environmental health practitioners and two trained field workers who performed similar studies in the last year. Permission to conduct the survey was obtained from the provincial health department and all respondents gave their consent before administering the questionnaire. Patients were interviewed about their expectations of health care service elements as well as the perceived performance of the public hospital. An attempt was made to select out-patients at randomly. However this was impossible due to the number of patients who visited the hospital on a daily basis. This survey was carried out during a period of six months. Therefore purposive sampling was applied for both inpatient and outpatient respondents during the six months field workers visited the health facility. Although an attempt was made to select the patients randomly, it was not always possible due to patients that were not able and/or willing to complete the questionnaires. In such cases substitutes were selected to overcome the problem of no responses. All wards in the hospital were visited during the survey. Due to the fact that health officials are working in the hospital permission was granted easily by respondents (patients in the hospital) who were familiar with the health workers. The two field workers, who were appointed to assist with gathering the information, were provided hospital identification cards to identify them as health care officials.

DATA ANALYSES AND FINDINGS

Data was captured by a trained assistant and analysed using the SPSS version 21 statistical package. Data was analysed after grouping the list of 53 pre-identified service related variables into five service related groupings.

The assumption of normality was assessed through the Kolmogorov-Smirnov test. Tests for normality were also assessed through a visual examination of histograms and normal probability plots. It showed that the data deviate to a great extent from a normal distribution. Consequently, a non-parametric test, the Kruskal-Wallis test was done to test the null hypothesis and the alternative hypothesis of the three hypotheses.

The demographic profile of the respondents looks as follows. Ninety five percent of the respondents do not belong to a medical aid. The majority of the sample (63%) are in possession of a secondary qualification (grade 8-12). Over 70% of the respondents were females. Most of the respondents were both in the age category 18-30 and 31-45 years of age (33% respectively). The majority of the patient's main reason for visiting the hospital is due to a serious illness. The majority of the patients are visiting that specific hospital because friends or family referred them there.

Table 1: Average level of importance

<i>Item wording</i>	Inpatient		Outpatient		Total		Results of hypothesis test
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
Tangibility: Average (8 variables)	1.55 4	0.64	1.56 4	0.53	1.56 4	0.59	Accept
Reliability: Average (8 variables)	1.53 3	0.51	1.55 3	0.54	1.54 3	0.54	Accept
Responsiveness: Average (8 variables)	1.52 2	0.55	1.49 2	0.55	1.50 2	0.55	Accept
Assurance: Average (8 variables)	1.39 1	0.49	1.40 1	0.52	1.40 1	0.50	Accept
Empathy: Average (6 variables)	1.58 5	0.53	1.61 5	0.56	1.60 5	0.55	Accept
Courtesy: Average (5 variables)	2.05 6	0.70	2.02 6	0.50	2.03 6	0.59	Reject

Lower level = rating

Table 1 indicates the level of importance of the service quality elements measured. It was evident that the assurance construct was overall (total) and distinctively (in- and -out patients) rated the most important construct amongst the six service quality constructs measured. The second most important construct is the responsiveness construct while it was also rated as second most important by the distinctive groups (in-patients and out-patients). Overall the third most important construct is reliability, while the two distinctive samples showed the same characteristics. No statistical significant differences between the two samples were measured in terms of the first four most important variables. Overall the least important construct, courtesy was also rated least important by the distinctive sample groups. No statistical significant differences were measured between the two sample groups.

Table 2 indicates the perceived performance delivered by the health care facility. The overall best perceived construct is assurance. It was also perceived best by the two distinctive sample groups. Statistical significant differences were measured between the two distinctive sample groups. The overall second best perceived construct is courtesy. The two distinctive sample groups perceive it in a similar fashion. Statistical significant differences are measured between the two distinctive sample groups. The overall third best perceived construct is empathy. It was also perceived third best construct by the two distinctive samples. The overall worst perceived variable is responsiveness. It was also perceived least best by the two distinctive samples. Statistical significant differences are not measured between the two samples.

Table 2: Average level of perceived performance

<i>Item wording</i>	Inpatient		Outpatient		Total		Results of hypothesis test
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	
Tangibility: Average (8 variables)	2.20 4	0.75	2.08 5	0.66	2.12 4	0.70	Accept
Reliability: Average (8 variables)	2.23 5	0.72	2.06 4	0.60	2.13 5	0.66	Accept
Responsiveness: Average (8 variables)	2.49 6	0.91	2.33 6	0.79	2.39 6	0.84	Accept
Assurance: Average (8 variables)	1.95 1	0.78	1.80 1	0.56	1.86 1	0.65	Reject
Empathy: Average (6 variables)	2.16 3	0.67	2.04 3	0.56	2.09 3	0.61	Reject
Courtesy: Average (5 variables)	2.05 2	0.70	2.02 2	0.50	2.03 2	0.59	Reject

Lower level = rating

Hypotheses = 0.05

Table 3: Importance and perceived performance gaps

<i>Service quality</i>	Inpatients				Outpatients				Total sample		
	P	I	Gap	PS	P	I	Gap	PS	P	I	Gap
Tangibility:	2.20 4	1.55 5	-0.65 2	0.001	2.08 5	1.56 4	-0.52 5	0.001	2.12 4	1.56 4	-0.56 4
Reliability:	2.23 5	1.53 3	-0.7 5	0.001	2.06 4	1.55 3	-0.51 4	0.001	2.13 5	1.54 3	-0.59 5
Responsiveness:	2.49 6	1.52 2	-0.97 6	0.001	2.33 6	1.49 2	-0.84 6	0.001	2.39 6	1.50 2	-0.89 6
Assurance:	1.95 1	1.39 1	-0.56 3	0.001	1.80 1	1.40 1	-0.4 2	0.001	1.86 1	1.40 1	-0.46 2
Empathy:	2.16 3	1.58 5	-0.58 4	0.001	2.04 3	1.61 5	-0.43 3	0.001	2.09 3	1.60 5	-0.49 3
Courtesy:	2.05 2	2.05 6	0 1	0.001	2.02 2	2.02 6	0.0 1	0.001	2.03 2	2.03 6	0 1

P= Perceived Performance

I= Importance

Gap = P-I

Lower figures = rankings

First v =Importance

Second v=Perceived performance

PS = Paired sample

Table 3 indicates the importance, perceived performance, gap between the two measurements and the significance between the two. Overall it is clear that only in the case of the courtesy construct, expectations are met. This resulted in satisfaction, although statistical significant differences are measured between the two measurements (expectations and perceived performance). This phenomenon is also observed for the two distinctive sample groups. Overall the smallest gap was calculated for assurance. Due to the fact that expectations were not met it resulted in dissatisfaction. This construct was consequently rated as the second less dissatisfied construct. Respondents were most dissatisfied with the responsiveness delivered in the hospital (-0.89) followed by reliability (-0.59) and Tangibility (-0.56). In terms of the service quality provided by the hospital, patients were fairly satisfied with the service quality offered to them, as seen by the relative small gap.

CONCLUSION AND RECOMMENDATIONS

Hospital administrators and health care marketers seeking to improve service quality in their hospitals should recognise the important role that the patient/consumer plays in the determination/evaluation of service quality. The paper sought to measure service quality by applying the SERVQUAL measuring instrument. The instrument was adapted for the South African situation to address the critique against this approach.

The aim was to understand the services provided by a state health care provider in South Africa. Fifty-eight variables were tested and categorized into tangibility, responsiveness, courtesy, empathy and assurance. Perceived performance of the health care provided and the expectations of patients were measured. Cronbach alpha of above 0.9 was measured for all the categories. By meeting or exceeding patients' expectations, positive outcomes such as profitability, increased market share and patient satisfaction can potentially accrue to the organisation (O'Connor, Sshewchuk & Carney, 1994). By applying SERVQUAL statistical significant differences were measured between expectations and perceived performance which consequently resulted in dissatisfaction. Ugolini (2009) confirms that outcomes are more often than not, negative and therefore negative perceptions can also not be overcome by positive results. However the only variable where expectations were met by applying the GAP analyses was regarding the courtesy construct. Expectations were however never met in terms of any of the other constructs by applying the gap analyses which confirms the statistical results. With regards to expectations, overall no significant differences were measured between the in- and the outpatients. Regarding the perceived performance there was a 50% split implying that for half of the variables, in- and outpatients respondents were in agreement of their perception of the performance while for the other half of the variables the respondents were not in agreement. Overall the variable that the respondents regarded as least dissatisfactory was the courtesy construct, while the responsiveness construct was most dissatisfactory. However if only the perceived performance results were used as predictor of service quality (SERFPERF method, the patients were fairly satisfied with the services provided by the health care provider. This method implies that no comparison between expectations and perceived performance is made and that the results only rely on the measurement of perceived performance.

MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH

The results of the investigation hold important implications for future planning and development in the South African healthcare industry, and more specifically at public hospitals delivering services to rural communities. Service managers should take cognisance of the most important service quality issues identified in this investigation. Decision makers should commence with intervention strategies by paying attention to the least satisfactorily variables first and consequently move up to less important issues.

This study concentrated only on one large public hospital serving a rural community. A worthy future research agenda could therefore be to explore how health care service quality in rural areas compare with those in urban areas. It would be valuable to conduct subsequent research on the specific problem areas identified namely the responsiveness, reliability and tangibility in this hospital. And finally, it would be valuable to conduct empirical research on the needs and perspective of the medical staff providing these services.

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GENERATION AND KNOWLEDGE MANAGEMENT THROUGH THE SYSTEM INFORMATION AND NETWORKS MANAGER

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ABSTRACT

The contribution of this work is to help understand how the logistics can contribute to the generation and management of knowledge in organizations. In particular, have used some positions of the Logistic Model Based on Positions (LoMoBaP, [MoLoBaC]), to analyze the possibilities of generating and managing knowledge through them. In this work there will use the position System information and networks manager (SINM) to analyze the perspectives in the generation and management of the knowledge in an organization. From this approach, the objective of this research arises: Show how it is possible to create and manage dynamic knowledge to implement the functions of the System information and networks manager of the Logistic Model Based on Positions. To reach the general objective and its specific generated objectives it will follow the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS).

Keywords: Generation and management of the knowledge, System information and networks manager, Business logistics, Logistic Model Based on Positions (LoMoBaP, [MoLoBaC])

INTRODUCTION

The relationship between the business logistics and the generation and management of knowledge has been studied with some regularity. But say Van den Heuvel et al. (2012) that knowledge management has not been implemented in large logistics companies, aspect that ratifies Neumann & Tomé (2010), who point out that this situation is more notary in small and medium enterprises. Sometimes this relationship between logistics and knowledge management, is presented through humanitarian logistics, either directly (Abiodun, 2014) or indirectly form (Sokat et al., 2014). In particular Tatham & Spens (2011), present this relationship through the Humanitarian Logistic Knowledge Management System (HLKMS). But more than this direct relationship of the business logistics with the knowledge management, interested in analyzing how the business logistics can be used for the generation and management of knowledge in an organization.

In this sense there are already some precedents, where through several of the positions of the Logistic Model Based on Positions (LoMoBaP, [MoLoBaC]), has analyzed the possibility to create and manage knowledge in a generic organization. Among others it has worked with: the Project manager (Barreto, 2012), the Industrial design manager (García, Hernández & Hernández, 2012), the Material handling manager (García, Hernández & Hernández, 2014a), the Customer service manager (Hernández, García & Hernández, 2012). Particularly in this last work, who was the first produced, a research line was established, which aims to study the generation and knowledge management through enterprise logistics. Following this line of research is the objective of this work: Show how it is possible to create and manage dynamic knowledge to implement the

functions of the System information and networks manager of the Logistic Model Based on Positions (MoLoBaC). This general objective involves three specific objectives:

- Select a model of knowledge management that can be handled from logistics.
- Show the main functions of the System information and networks manager of the MoLoBaC.
- Show how it can generate and manage knowledge of an organization through a set of functions of the System information and networks manager (SINM) of the MoLoBaC.

To achieve the objectives will be followed the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS, in Spanish, Metodología Integradora-Adaptable para desarrollar Sistemas de Apoyo a las Decisiones [MIASAD]) (García, Hernández & Hernández, 2014b), which, among its features include the not pose hypotheses, but follow a series of steps. And for its flexibility and adaptability to different types of investigation (García, Hernández & Hernández, 2014b; Hernández, García & Hernández, 2013; Jeney, 2014), it can be used of it, only the steps that are considered to be important, of there, similar to the realized in other works (Hernández, García & Hernández, 2013) only the following steps will follow:

- a) To define the problem, that, as is indicated in the objectives is show, as it is possible to generate and to manage the dynamic knowledge in an organization, based on functions of the SINM of the MoLoBaC;
- b) To prepare a first prototype, where is identify the users of the final product, that is the main readers of this article, that will be all those interested in business logistics, especially those that focus on its analysis through models qualitative-quantitative and particularly those who need or want a view from the point of view of information systems. Of course these users should add them all those studios of the generation and knowledge management. Moreover, with this first prototype, the structure of the article is established, which in addition to this introduction will consist of three central chapters, in the first of them, shall be submitted some comments on the generation and management of knowledge, mainly aimed at identifying the model to use; in the second will be presented the SINM, from some of the functions that the manager performs and in the third and principal chapter of all, it will be presented as it is possible to generate and to manage the knowledge in an organization, from some of the functions of SINM;
- c) Obtain data, on all available sources, especially journals and books. In this case on generation and management of the dynamic knowledge, logistic models and on information systems and networks;
- d) Establish alternatives, that would be the ways that could generate and manage dynamic knowledge from the functions of the SINM;
- e) Evaluate alternatives, in the sense to see the feasibility of the proposed alternatives to achieve the desired objectives. In this case according to the capabilities of these alternatives generate and manage knowledge in a business organization. As element for this evaluation will take in account the aptitude that have to generate dynamic knowledge the functions that are defined of the SINM;
- f) Select the alternative, according to the previous evaluation and considering the secondary objectives, whether they are tacit or explicit. The alternative selected can be a group of functions;
- g) Implement the best alternative, illustrate through a hypothetical case and with a few functions of the SINM, how it is possible to generate and to manage dynamic knowledge;
- h) Establishing controls, which would be mechanisms to recognize if the solution or solutions achieved remain valid over time.

As limitation and scope has, that will not realize field works, but the generation and management of the knowledge from the SINM, will be done through a simple and hypothetical example, which will give greater generality to study.

BRIEF COMMENTS ABOUT THE GENERATION AND MANAGEMENT OF THE KNOWLEDGE

For reasons of space there will not be made major comments about the generation and management of the knowledge, it is recommended to the reader to consult other works (García, Hernández & Hernández, 2012; 2014a; Hernández, García & Hernández, 2012), in particular will be used as in this work, the model of Nonaka, Toyama & Konno (2000) and it will continue the adaptation by Hernández, García & Hernández (2012) displayed in the diagram created by Barreto (2012), that is shown in figure 1.

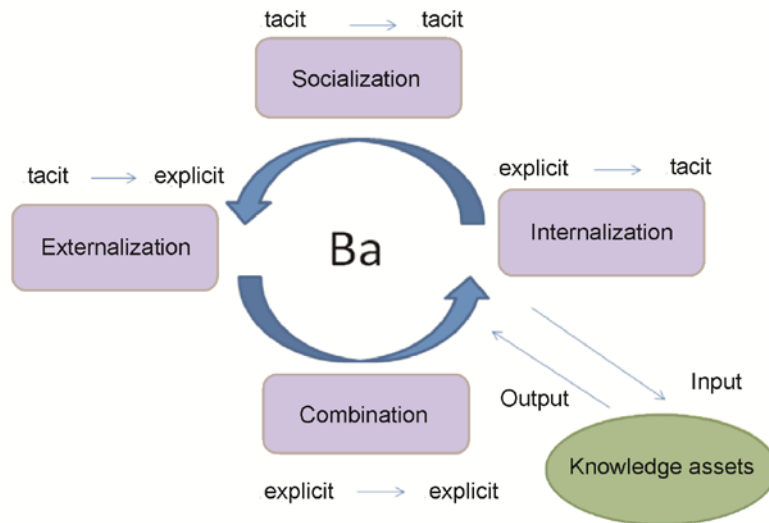


Figure 1: Conceptualization of the model of Nonaka, Toyama & Konno.
Source: Barreto (2012), based in Nonaka, Toyama & Konno (2000).

In the conceptualization of Barreto (2012) of the model of Nonaka, Toyama & Konno (2000), should highlight the various states through which passes the knowledge, adjusting from tacit to explicit to tacit in a continuous spiral, moving around the Ba. This element, the Ba, should be seen as a place and time where knowledge is managed, Jeney (2014), based in Nonaka, Toyama & Konno (2000), presents four types of it that are: originating the Ba, dialoguing with the Ba, systemizing the Ba and exercising the Ba. The presence of the processes of Socialization, Externalization, Combination and Internalization, under a suitable Ba, produces the knowledge assets for the organization. If the reader wishes to deepen on all these concepts, as already noted, it is recommended to check the works cited here.

In this paper will explore how it can generate and manage knowledge, from the functions of SINM, so then this manager is presented, highlighting its main functions.

THE SYSTEM INFORMATION AND NETWORKS MANAGER AND SOME THEIR FUNCTIONS

For it is very complex to study the business logistics, in the academy four qualitative - quantitative models (LAPDI, MoLoBaC, MoLoBaCa and MoLETOI) have been created to study it (Hernández, García & Hernández, 2013). This work will centre on one of them, the Logistic Model Based on Positions (LoMoBaP, [MoLoBaC]), which examines the business logistics through the roles that they play who have positions related to the same. MoLoBaC is divided into six stages, which are divided into twelve areas. One of the six stages is General to Information, which consists of a single area, Information, which is determined as a mixed area, for being conformed by positions of different stages. In the area Information the positions are: Expansion manager (15), that belongs to the stage Generals of the company; Virtual channel manager (16), New technologies manager (17); System information and network manager (18) and the Research and development manager (19), all these last four of the stage of General to Information. It may notice that in the MoLoBaC all the positions are identified by a number, which is what has been placed next to each of the positions listed here. This work, as was mentioned, will focus on the SINM, the position 18 of the MoLoBaC.

The SINM, is responsible for ensuring that the organization remains well connected, that it has networks, computers and appropriate software, for that the communication is carried out in the best way, at the same time that should help to schedule the maintenance of computers and networks, to the preparation of personnel for the use of the same and the acquisition of new equipment and software necessary for the whole organization. So implements and oversees everything related to computing and communication of the

organization. To carry out these various responsibilities this manager must meet a lot of functions. Some of the functions that the SINM must redeem will list in the table 1, which were selected, modified or simply inspired among others of Cadle & Yeates (2008), Gorry & Scott (1971), Gunasekaran & Ngai (2004), Laudon & Laudon (2006), Ong & Chen (2013), in the course program on Management Information Systems of Professor Nasuti (2003), but mainly in Jeney (2014). In this table, as already been doing at work, some abbreviations are used such as: HR, by human resources; HRM, by Human resources manager; INE, by information and networks; INS, by information systems; ISN, by information systems and networks; IS&IR, by Security and internal relationship manager; Mgr., by manager; R&D, by Research and development; SC, by Supply chain; SCM, by Supply Chain Management; TI, for information technology.

Table 1. Some functions of the Information systems and networks manager of the MoLoBaC.

Intrinsic to the position.	
01	Establish policies and standards relating to the INS and the networks of the organization.
02	Ensure that the organization has the best equipment to the communication.
03	Develop technological processes of planning, to ensure technological improvements and strategic plans.
04	Analyze the trends of the market in terms of technologies of the communication.
05	Generate mechanisms to facilitate the handling of IT throughout the organization.
06	To apply an approach centered on the progress of the communications, on the moment to define new procurement, focusing both hardware and software.
07	Be up to date with new IT, including digital security.
08	To define the protocols of communication of the intranet of the organization.
09	Guide to members of the organization to make profitable use of equipment and programs.
10	Negotiate technologies. Identify activities and factors, which will allow the organization to acquire the necessary and appropriate technologies to improve its performance and efficiency.
11	Ensure the functioning of equipment and programs, providing mechanisms backups in case of internal faults or environment.
12	Conduct studies to ensure that it is making the best use of available data.
13	Planning, directing and controlling the operations of the INS and data processing.
14	Keep track on new equipment and programs to ensure best utilization.
15	To inform the organization of any change in what to ISN it refers.
16	Take care that the INS will contribute to knowledge management in the organization.
17	Collaborate with the recruitment of personnel and suppliers to design, develop, deploy, operate and manage the software of telecommunications, networks and INS of the organization.
18	Create or participate in the creation of the best conditions for the handling of information.
19	Provide recommendations on how to access the information and support.
20	To classify the whole software handled by the organization, in accordance with his functionality.
21	Create incentives for the best use of the information and the new TI.
22	Activate mechanisms that would enable it to measure the good use of the information.
23	Seek to acquire a broad knowledge of all aspects of the TI.
24	Analyze constantly needs new strategies in the management and dissemination of information.
25	Acquire analytical, planning strategies and communication skills.
26	Does staff the organization understand that information is a vital resource.
27	Ensuring support software, hardware and network infrastructure of the organization.
28	Disseminate the organization, the benefits of a good use of information.
29	Establish strategies to improve permanently response times in the organization.
30	Be alert to changes in the environment that may affect the efficiency of equipment and programs.
31	Ensure that the ISN, are considered in all plans for expansion of the organization.
32	Procedures to ensure that when disposing hardware, no sensitive information affecting.
33	Help to maintain the confidentiality of sensitive information, of the organization and the staff.
Related to other positions of MoLoBaC	
34	Ask for advice to the Mg of quality to include aspects of quality in the INS.
35	Working with the Mgr. of Layout to define spaces within data centers.
36	Receive the collaboration of the Procurement Mgr. and his subordinates for the acquisition of new IT.
37	Ensure, through the General maintenance Mgr. and subordinates, that equipment necessary for better communication within the organization receive the necessary maintenance.
38	Coordinate with Mgr. of Cost to enhance communications at minimum cost.
39	To take part, together with the Mgr. of costs, in the minimization of costs of the organization, thanks to TI.
40	To collaborate with the Mgr. of Finance, to establish the budget necessary for INE.
41	To control, the budget and expenses of the system department, with the help of the Finance Mgr.
42	Work in a coordinated manner with Mg of R&D and its other subordinates, in order to maximize the contribution of the new TI.
43	Facilitate all the processes of technology transfer, again supported by the Mg of R&D.
44	Coordinate with Mgr. of Spare and equipment, having the equipment and parts to facilitate communications without difficulty.
45	Working with Inventory and Warehouse managers and the Picking Mgr., in order to prepare programs to facilitate their work.
46	Help with programs and equipment to Mgr. of Industrial Design in performing their functions.

Table 1. Some functions of the Information systems and networks manager of the MoLoBaC. (Continuation)	
47	Assisting the Marketing and sales Mgr., through programs that allow project the image of the organization to consumers.
48	Collaborate with the Transport Mgr. and his subordinates, especially Routes Mgr. in the design and monitoring of routes to follow the fleet in the day to day.
49	Guaranteed together the RHM, that INE personnel has the necessary training.
50	Train staff, with the assistance of RHM, for potential new uses of the systems.
51	Provide individual training and support to those who need it, with the help of RHM.
52	To supervise the creation of programs, along with the managers of HR and IS&IR, that prepare for the organization to confront the industrial accidents and catastrophes of natural origin, which could to present.
53	To generate and to take part, with the Mgr. of projects, in projects of interconnection, which favor the whole organization.
54	Working in close collaboration to the Environmental Mgr., to establish programs that will help promote the environment.
55	Review with the Ethical & Juridical Consultant by the legal framework on information to comply fully.
56	Collaborate with the Customer service Mgr. to translate better communication in the organization for a better customer service.
Related to MoLoBaCa, LAPDI, MoLETOI and the enterprise logistics in general.	
57	To achieve that the personnel of ISN impel the vision, mission and rectors principles of the organization.
58	Help generate management indicators that measure the performance of INE.
59	Promote the development of programs for managing all flows of the organization.
60	Provide positive impact on the strategic, tactical and operational aspects of the organization.
61	To integrate the ISN with the remaining logistic aspects of the organization.
Related to SCM and the enterprise and its environment as a whole.	
62	To integrate, as far as possible, the INS of the organization, with the respective systems of other members of the SC.
63	Help the organization as a whole and to be possible to their allies in the assimilation of technologies.
64	Establish partnerships with the other members of the SCM, to facilitate better communications.
65	Take advantage of any variation or change in the environment that will enhance the INS.
66	Maintain a permanent contact with consumers to improve the INS.
67	Ensure that the staff of INE has a positive impact on society as a whole.
68	Build campaigns that encourage better management of the information in the organization and its environment.
69	Promote the reduction of energy consumption in the INE work.
70	Establish partnerships with institutes of education, to advance knowledge and management of the TI.
71	Create campaigns that will allow them to integrate the staff of INE with neighboring communities.

For the reader who wants to check other functions of the SINM, it is recommended to him to check the work of Jeney (2014), although unfortunately only available in Spanish. Having reviewed the functions of the SINM, will pass, in the next section, to review how they can help in the generation and management of the knowledge of an organization.

GENERATION AND KNOWLEDGE MANAGEMENT THROUGH THE SINM

The analysis that will do next, it will be based principally on the functions presented in the table 1. To simplify and for reasons of space will reflect these results through tables 2 to 7, in them there will appear those functions than according to the model of Nonaka, Toyama & Konno (2000), have a greater impact on each of the components of the model. In table 2, will be listed the functions that have relation with the Socialization.

Table 2. Management of the Socialization through of the System information and network manager.

SECI (Socialization)	
Aspects	Functions that do
Share experiences:	
With his subordinates.	Basically the functions 01 to 33; 57 to 61.
With other positions of MoLoBaC.	Highlights functions 34 to la 56; 59.
With external entities.	Especially functions 62 to 71.
Exchange of information.	All functions of the 01 to the 71.
Frequent meetings.	Are routinely made and therefore not explicitly contemplated.

In the table 3, they will list the functions that are related to Externalization, in the table 4, functions that have more related to the Combination are presented and in the table 5, those related to the Internalization.

Table 3. Management of the Externalization through of the System information and network manager.

SECI (Externalization)	
Aspects	Functions that do
Crystallizes the knowledge.	01 to 06; 08 to 10; 12 to 16; 18 to 24; 26; 28 to 31; 34 to 43; 45 to 63; 65; 68; 70.
Transformed into explicit the tacit knowledge.	01; 04 to 09; 12; 15; 16; 18; 20; 22; 24; 26; 28; 34 to 56; 58 to 61; 63.
Articulated work.	01 to 16; 18 to 64; 66 to 71.
Forms the basis of new knowledge.	Basically all functions of 01 to 71.

Table 4. Management of the Combination through of the System information and network manager.

SECI (Combination)	
Aspects	Functions that do
Systematized knowledge.	01; 03 to 13; 15 to 29; 34 to 56; 58 to 66.
Convert explicit knowledge into more explicit knowledge.	01; 03; 05; 09; 12; 15; 16; 19; 22; 24; 26; 28 to 32; 34 to 59; 63.
Helps to process, combine, edit and convert knowledge into new knowledge.	01 to 03; 05 to 30; 34 to 68.

Table 5. Management of the Internalization through of the System information and network manager.

SECI (Internalization)	
Aspects	Functions that do
Integrates knowledge.	01; 05; 07 to 30; 34 to 71.
Converts explicit knowledge into tacit knowledge.	01; 05; 08 to 26; 28 to 30; 34 to 63.
Spread the new knowledge.	Basically through all functions 01-71.

In the table 6, functions that are related to the Ba are listed, and in the table 7, functions that have more related to the different knowledge assets are presented.

Table 6. Management of the Ba through of the System information and network manager.

Ba	
Aspects	Functions that do
Offer: Space. Time. Conditions. Space-time.	MoLoBaC managers, including SINM, do not generate explicitly the Ba, nevertheless, in the following functions it is possible to see its presence: 01 to 03; 05 to 29; 33 to 57; 59 to 68.

Table 7. Knowledge assets of the SINM.

Knowledge assets (Experimental)	
Aspects	Functions that do
Emotional and affective.	All functions. Involving all positions of the MoLoBaC and subordinates of SINM.
Tacit knowledge shared and re-built.	Participate, practically all the functions, but it is still proper to each organization.
Knowledge assets (Conceptual)	
Images and symbols.	Practically all the functions.
Table 7. Knowledge assets of the SINM. (Continuation)	
Explicit knowledge.	01; 07; 11; 14; 27; 34; 38; 39; 40; 45; 46; 47; 49; 51; 54; 57; 58; 59; 60; 61.
Shared knowledge.	Practically all the functions, highlighting the 01 and between 34 and 56.
Knowledge assets (Systemic)	
Explicit knowledge organized, systematized and legalized.	More visible of the Knowledge assets. Practically all the functions, especially the related to the Ethical & Juridical consultant: 55.
Easy to understand and to transmit.	All the functions.

Knowledge assets (Routine)	
Organizational culture.	It is essentially practical. Involved all functions. It is also unique to each organization.
Tacit knowledge that is already implanted, embedded in the daily work of the organization.	

Although for reasons of space no details of how the relationship was established between each of the functions and the different processes and model components Nonaka, Toyama & Konno (2000) are given. Through Tables 2 to 7, previously shown, it is possible to see the importance that has the SINM in the spiral of the dynamic knowledge, established by the model, in accordance with the adaptation realized for Hernández, García & Hernández (2012). The engine that allows the SINM be an active entity in the creation and knowledge management, is its constant interaction with practically all the areas of the organization, as could be observed in table 1, to study their functions. With the aspects showed in the table 2 to 7 sees the importance of the SINM, in the generation and management of the knowledge of an organization, so it can be passed to present some conclusions and recommendations.

CONCLUSIONS AND FUTURE INVESTIGATIONS

While there was no explicit selection process, worked with the Systems information and networks manager of the MoLoBaC, for being the information area, one that has a greater interaction with the remaining positions and areas of the model and in particular the ISNM is one of its main representatives.

Through the many functions, the ISNM, which were mentioned, it was possible to observe the importance that has this position in the communications of the whole organization, simultaneously that could analyze its complexity and its big interaction with the rest of the organization. It was also observed as the different functions exercised by the ISNM, adapted to the processes of the model chosen to verify generation and knowledge management in an organization. This model follows a constant spiral of dynamic knowledge. Spiral that ascending in a permanent exchange between tacit and explicit knowledge.

Having fulfilled the specific objectives, it was possible to achieve the general objective and was evident, that it is possible to generate and to manage the knowledge of an organization, departing from some of the functions redeemed by the INSM. This conclusion allows recommend, to continue with this line of research and that analyzes the possibilities of generating and of managing knowledge from other positions of the MoLoBaC.

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IMPACT OF MARKET ORIENTATION AND MARKETING CAPABILITY ON PERFORMANCE IN FINNISH SME GROWTH FIRMS

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ABSTRACT

The overall purpose of our study is to explore whether firms with positive growth in turnover differ, in marketing capabilities and market orientation, from firms with no growth or negative growth. The precise objectives are to determine (1) whether MO and marketing capability explain performance in Finnish SME's and (2) whether the effects differ in firms that have grown in terms of turnover. Results show that the effect of MO and marketing capabilities on firm performance is different with growth firms compared to firms with no growth. Marketing capabilities explain significantly the performance in growth firms but not in firms with no growth or negative growth.

Keywords: Growth, profitability, SMEs, market orientation, marketing capabilities

INTRODUCTION

Firm growth is one of the core topics in entrepreneurship literature (McKelvie & Wiklund 2010; Kiviluoto 2011; Davidsson & Wiklund, 2000). According to McKelvie and Wiklund (2010) earlier growth research can be categorized into three streams: (1) growth as an outcome, where the primary goal is to explain varying growth rates and / or incremental paths, (2) the outcome of growth, dealing with how growth leads to organizational consequences and (3) the growth process, with focus on the actual growth process. The present study relates mainly to the first stream, as we examine whether firms with positive growth in turnover differ, in marketing capabilities and market orientation, from firms with no growth or negative growth.

Market orientation (MO) is a business culture focusing on continuous creation of superior value for customers (Narver et al. 1998), and consists of three elements, namely customer orientation, competitor orientation and interfunctional coordination (Narver & Slater 1990). Narver and Slater (1990) found MO to have a substantial positive and direct effect on profitability, whereas Pelham (1997) suggests an indirect effect on profitability through firm effectiveness and growth/share (Pelham, 1997). Also Slater & Narver (1994) confirm MO's effect on sales growth. In addition, Pelham (2000), in a study in small firms, finds that MO has a critical role in implementing a growth strategy. Vorhies and Harker (2000) found that firms with high MO also had higher levels of marketing capabilities. Further, in a study on customer focused marketing capabilities, Vorhies, Orr and Bush (2011) found an impact on financial performance from capabilities in brand management and customer relationship management. In sum, MO has either direct or indirect effect on profitability; MO and marketing capabilities are linked, and there appears to be a connection with growth.

The objectives of the present study are to analyse (1) whether MO and marketing capability explain performance in Finnish SME's and (2) whether the results differ in firms that have grown in terms of turnover more than 30 % between 2010 and 2012 and in firms that have not experienced growth.

THEORETICAL FRAMEWORK

Market orientation (MO) is the basis of marketing and strategic planning (Narver & Slater, 1990) and entails the processes of a firm implementing marketing concepts in practice (Kohli, Jaworski & Kumar 1993). Three different elements have been identified in MO: customer orientation, competitor orientation and interfunctional coordination (Narver & Slater, 1990). Customer and competitor orientation refer to active information generation from customers and competitors through monitoring market needs and wants. Interfunctional coordination refers to the firm's ability to disseminate this information throughout the firm in a way that creates value to the customer through products and services. Kohli and Jaworski (1990) identify three phases in the process: 1) generating market information from customer's present and future needs, 2) sharing market knowledge within the firm and 3) answering to customer's present and future needs. Coley, Mentzer and Cooper (2010) suggest that, when operating in consumer markets, consumer orientation should be a fourth element in MO in addition to customer and competitor orientation and interfunctional coordination.

In terms of MO, firms can be classified in different ways. Some scholars view MO as a continuum along which firms can be placed, i.e. firms can adopt different levels of MO. Others view MO as dichotomous: a firm either is or is not market oriented (Harris, 1999). MO has also been viewed as a resource in a learning organization (Hunt & Morgan, 1995), in which case MO is considered a resource for generating information to help the firm to develop products and services with better value for the customer. Hurley and Hult (1998) argue that, for growth and productivity, it is not MO itself that is relevant but rather the development of the firm's competencies through MO.

Market orientation has attracted wide research efforts over the past years, with the studies highly concentrated on MO's effect on business performance. Prior research indicates that MO is related to business performance either directly or indirectly (e.g. Verhoef et al., 2011; Narver & Slater, 1990; Pelham, 2000; Matsuno, Mentzer & Özsomer, 2002). Also studies using meta-analyses confirm the positive effect of MO to business performance (Cano, Carrillat & Jaramillo, 2004; Kirca, Jayachandran & Bearden, 2005). The same result has been found also in microenterprises by Spillan et al. (2013). However, MO has not been extensively studied in Finnish firms. Reijonen and Komppula (2010) found that SME's in Northern Carelia have not yet adopted high levels of MO. Nevertheless, EK & Nordea (2013) study highlights the importance of market-based thinking in Finnish growth companies.

Contradictory results exist concerning the effect of MO on profitability. Narver & Slater (1990) find that MO has a substantial positive and direct effect on profitability in both commodity products businesses and noncommodity businesses. However, Pelham (1997) suggests that MO has an indirect effect on profitability through firm effectiveness and growth/share (Pelham, 1997). Also Slater & Narver (1994) confirm MO's effect on sales growth. In addition, Pelham (2000), in a study of MO in small firms, finds that it has a critical role in implementing a growth strategy. In conclusion, MO has either direct or indirect effect on profitability and has a role in growth.

To summarize the previous findings and discussion, the following hypotheses can be presented:
H1. Market orientation has a positive effect on firm performance.

According to resource based view (RBV), a firm can be viewed as a bundle of resource, and competitive advantage is based on possession of valuable and rare resources. Little utilized in the field of marketing (Srivastava, Fahey & Christensen 2001), the RBV has been later complemented by a view emphasizing dynamic capabilities (DC), which highlights the ability of a firm to adjust its processes so as to utilize resources effectively in a dynamic business environment; in the DC view competitive advantage stems not just from resources but rather from new resource configurations based on dynamic capabilities (Cavusgil, Seggie & Talay 2007). According to Day (1994), capabilities are complex bundles of skills and knowledge accumulated in the firm and applied in organizational processes. Day (1994) considers in particular the capabilities connected to understanding the markets and customer focused marketing capabilities central for market oriented firms. Reijonen and Komppula (2010) find that although market orientation and in particular customer orientation have been adopted to some degree among Finnish SMEs, there are considerable gaps in marketing capabilities. Since marketing process tend to develop on firm level, capabilities also evolve individually, potentially producing

unique ways of utilizing competencies. Srivastava, Fahey and Christensen (2001) emphasise the creation of customer value based on knowledge and relationship resources within innovation, value chain and customer relationship management processes. As markets become increasingly complex, dynamic capabilities are also increasingly important: the ability to learn from market information, to experiment flexibly, to market in a way that builds relationships (Day 2011).

The emphasis on dynamic capabilities highlights the importance of strategic level adoption of MO. Vorhies and Harker (2000) found in their study that firms with high MO also had higher levels of the six marketing capabilities, these being marketing research, product development, pricing, distribution, promotion and marketing management. In further study on customer focused marketing capabilities, an impact on financial performance from capabilities in brand management and customer relationship management was found (Vorhies, Orr & Bush, 2011). The latter enables efficient deployment of relationship resources and the former of reputational resources. Also Wilden & Gudergan (2015) found that marketing capabilities are positively associated with firm performance in highly competitive environments. In sum, it appears MO and marketing capabilities are linked, and have a connection firm performance.

To summarize the previous findings and discussion, the following hypotheses can be presented:

H2. Marketing capability of the firm has a positive effect on firm performance.

Factors on the individual, firm and environmental level have been found to influence development and growth in small firms (Gibb, 2000). Dobbs and Hamilton (2007) reviewed 34 studies in regard to the determinants of small firm growth and demonstrated that, all in all, the findings have been inconsistent, i.e. in addition to many positive correlations, also negative or neutral impacts with the same factors have been found. Altogether firm growth is a multidimensional and complicated phenomenon; it is difficult to unambiguously explain firm growth in the SME context within a single model.

With regard to firm-level elements, positive correlations have been found between growth and factors such as age (e.g. Becchetti & Trovato, 2002; Davidsson & Delmar, 1997; Davidsson, Kirchhoff, Hatem-J & Gustavsson, 2000; Evans, 1987) and size (e.g. Davidsson, 1991; Davidsson et al., 2000; Delmar & Davidsson, 1999; Hoogstra & van Dijk, 2004; Hamilton, 2010). Both smaller firms and younger firms tend to grow more rapidly as they attempt to accumulate sufficient resources to enable them to withstand external shocks (Heinonen, Nummela & Pukkinen, 2004; Smallbone, Leigh & North, 1995; Smallbone & Wyer, 2000). In Finland high growth firms have been found to possess higher start-up capital and a greater number of founders as well as more employees in an early stage (Pajarinen & Rouvinen, 2006; Pajarinen, Rouvinen & Ylä-Anttila, 2006), suggesting that growth is dependent on the resource-base of the firm as per Penrose's (1959) growth model. Several studies have shown that the size and growth of the firm together have a strong impact on financial outcomes (Boardman, Bartley & Ratliff, 1981; Hutchinson, 1987, 1989). In Finland Laitinen (2007) has examined the impact of both short term and long term growth on financial performance indicators in SMEs, finding that growth firms have better profitability.

Also differences in behavior of firms have had either direct or indirect effects on growth or performance. As noted before, several studies suggest MO may play a role in growth of SMEs (e.g. Verhoef et al., 2011; Narver & Slater, 1990; Pelham, 2000; Matsuno, Metzger & Özsomer, 2002). Pelham (1997) suggests that the effect of MO on profitability is indirect, through firm effectiveness and growth/share (Pelham, 1997), and Slater and Narver (1994) confirm MO's effect on sales growth. Taken together, the studies suggest that MO and the capabilities through which it is enacted have a role in both growth and performance. However, it is not clear whether the role of MO and marketing capabilities have a similar role in performance of growth and non-growth firms.

Based on the previous, the following hypotheses are presented:

H3. The effect of marketing orientation and marketing capability on firm performance differs in growth firms compared to firms with no growth.

H4. Firm size and firm age have an effect on performance.

METHODOLOGY

The data was gathered with a questionnaire sent in spring 2014 to 492 firms identified as growth firms for the period of 2010-2012 in the region South Ostrobothnia in Finland and to 534 firms with no or negative growth. Altogether 152 responses (15%) were received. 89 responses were from growth firms and 63 from firms with no growth or negative growth. The data was analyzed using linear regression analysis with SPSS. We tested a model with linear regression analysis in which the performance was explained by MO, marketing capabilities, firm size and firm age. The model was tested separately for firms with 30 % positive growth in turnover and for firms with no or negative growth in turnover.

Growth rate was calculated as a cumulative change in turnover in 2010–2012. Performance was measured by the modified instrument of Baines and Langfield-Smith (2003), Chapman and Kihn (2009) and Tsamenyi et al. (2011). Nine items were used (cost control, liquidity, sales volume, profitability, solidity, market share, development of new products/services, broadening markets, development of personnel, stakeholder relationships). Cronbach's alpha for performance scale was 0,90. MO was measured using 20-item MARKOR-scale (Kohli, Jaworksi & Kumar 1993; Farrell & Oczkowski 1997). Cronbach's alpha for market orientation scale was 0,86. Marketing capabilities were measured using adapted scale from Vorhies and Harker (2000). It consisted of 24 items (Cronbach's alpha for the scale 0,94).

The average size of the firms was 6,5 employees (median 3). The average age of the firms was 24,6 years (median 22). The industries of the firms were: 26 % services, 37 % manufacturing, 15 % retail trade, 16 % construction, 5 % logistics and the rest, other. The percentage of growth ranged through -99,9 (minimum) ja 9783,3 (maximum).

RESULTS

Firms with more than 30 % growth in turnover had, compared to firms with no or negative growth, higher means in MO (4,82 vs. 4,68), marketing capabilities (4,30 vs. 4,02) and profitability (4,58 vs. 4,03). There were no significant differences with firm size or firm age.

Table 1 presents the linear regression analysis for the growth firms. In the 89 growth firms, the model explains 31 % of the variance in performance. The best predictor in the model is marketing capabilities (0,45***). However, MO has no significance in the model, nor does firm size or firm age. MO and marketing capabilities correlate strongly with each other (0,55***).

Table 1. Results of the linear regression analysis for growth firms

Control variables	
Firm age	0.17
Firm size	0.14
Independent variables	
Marketing capability of the firm	0.45***
Market orientation	0.16
Model fit statistics	
Adjusted R ²	0.31
F-statistics	10.156***

+ p< .10. * p< .05. ** p< .01. *** p<.001

Standardized coefficients reported.

Table 2 presents the linear regression analysis for non-growth firms. The model explains 24 % of the variance in performance with firms that has no or negative growth in turnover. However, none of the variables in themselves have statistical significance.

Table 2. Results of the linear regression analysis for non-growth firms

Control variables	
Firm age	0.00
Firm size	0.14
Independent variables	
Marketing capability of the firm	0.28
Market orientation	0.25
Model fit statistics	
Adjusted R ²	0.24
F-statistics	5.443***

+ p< .10. * p< .05. ** p< .01. *** p<.001

Standardized coefficients reported.

In sum, the effect of MO and marketing capabilities on firm performance is different with growth firms compared to firms with no growth. Marketing capabilities explain significantly the performance in growth firms supporting H2 but not in firms with no growth or negative growth. H3 is therefore also supported. However, H1 is rejected: market orientation did not explain performance. Firm size of firm age did not have effect on performance, thus H4 is rejected.

CONCLUSIONS

Marketing capabilities do have an effect on performance in Finnish SME's. However, results differ in firms that have grown in terms of turnover more than 30 % between 2010 and 2012 and in firms that have not grown or the growth in the given time-period has been negative. In growth firms the effect of marketing capabilities is significant but the same effect was not found in firms with no growth or negative growth. Interestingly, MO has no direct effect on performance either in growth firms or in firms with no or negative growth, although MO and marketing capabilities correlate strongly with each other. This may be taken as support for Pelham's (1997) suggestion that MO has an indirect effect on performance, mediated by marketing capability of the firm. It is suggestive that the effect of marketing capabilities is significant in growth firms only. Davidsson, Steffens and Fitzsimmons (2009) have argued, on basis of empirical data from SMEs, that growth should be earned with a genuine resource-advantage, i.e. performance should come before growth rather than growth before performance, for lasting success. According to our results firms able to leverage their MO with a higher level of capabilities may have an edge and hence achieve both growth and performance. However, since the period examined in the study coincides with an economic repression of an exceptionally long duration, it is possible that the results are affected by external circumstances not related to the actual behaviours of the firm. All in all the interaction between these concepts requires more research.

However, based on the results a tentative managerial implication can be proposed. Market orientation in itself is not sufficient to produce effects on performance in neither growth nor non-growth firms. At least in a developed economy such as Finland, and a slow economic climate such as the period studied, market orientation alone does not suffice for supporting performance in growth firms. Hence, managers striving for growth and wishing to maintain high performance at the same time, should work to ensure their market orientation is supported by high level marketing capabilities. This means maintaining an effective and systematic approach to marketing research, product development, pricing, distribution, promotion and, finally, marketing management.

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THE DEVELOPMENT OF ENTREPRENEURIAL SELF-ESTEEM AMONG HIGHER EDUCATION STUDENTS

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ABSTRACT

The overall purpose of our study is to explore the development of individuals' perceptions of their entrepreneurial self-esteem (ESE) – over time in the context of higher education institutes. The precise objectives are: (1) to analyze the development of entrepreneurial self-esteem (ESE) of individuals over time and (2) to explore potential gender differences in the development of individuals' entrepreneurial self-esteem. Results show that entrepreneurial self-esteem seems to decrease during higher education studies. While entrepreneurial self-esteem is higher for male students than for female students in the beginning of studies, entrepreneurial self-esteem seems to decrease both among men and women in similar fashion.

Keywords: Entrepreneurial self-esteem, higher education, longitudinal study, gender

INTRODUCTION

All Finnish higher education has a built-in, policy-driven requirement for promoting entrepreneurship (see e.g. Ministry of Education, 2009), despite the fact that the role of entrepreneurship education (EE) in learning of entrepreneurial attributes and skills is far from clear. While some studies seem to suggest that higher education reduces the likelihood of entrepreneurship (Henley, 2007; Nabi et al., 2010), others suggest the opposite (Blanchflower and Meyer, 1994; Lanero et al., 2011; Zhang et al., 2013). It can be argued that a meaningful objective for EE in higher education institutes is to develop the entrepreneurial skills of individuals rather than to push them to become entrepreneurs straight away. An important nuance is related to the distinction between actual skills and an individual's perception of his/her skills. While the identification of the exact set of skills required by entrepreneurship is an elusive task, we can conclude that focus should be on an individual's perceptions about his/her entrepreneurial skills; it is the perceptions (about one's skills, situation, environment, etc.) that guide an individual's decision-making regarding future actions, for individuals rarely engage in activities they expect to fail in. Entrepreneurs' perceptions and interpretations are crucial for the process of venture creation (Edelman and Yli-Renko, 2010).

Taking this as a point of departure, the overall purpose of our study is to contribute to the literature in EE by theorizing and empirically exploring the development of individuals' perceptions of their own entrepreneurial abilities –i.e. entrepreneurial self-esteem (ESE) –over time in the context of higher education institutes. Further, as extant research suggests that women and men may have differences in the ways they learn (e.g. Gallos, 1993; Wilson et al. 2007), we wish to consider potential gender differences. Hence, the more precise objectives of this study are twofold: (1) to analyze the development of entrepreneurial self-esteem (ESE) of individuals over time and (2) to explore potential gender differences in the development of individuals' entrepreneurial self-esteem.

Our study makes an important contribution by studying the development of ESE during higher education studies. Indeed, longitudinal designs to follow the development of ESE are quite demanding from

empirical point of view. This is also a reason why they are relatively rare, and represent a notable gap in research (e.g. Fayolle and Liñán, 2013). We contribute to this direction by using a longitudinal design in our empirical study: we follow the same students the whole study-time (four years), and take repeated measures of the possible antecedents of and effects on ESE.

REVIEW OF LITERATURE AND THEORETICAL MODEL

Some scholars argue that research on impacts of EE should extend to longitudinal studies that examine actual venture formation (Matlay, 2005; Pittaway and Cope, 2007). It has also been noted, however, that not all higher education institutions and entrepreneurship programs aim to ‘producing’ new entrepreneurs, e.g. individuals who would actually start their own business during the initiative or right after it. As an interesting contribution to this debate, Jones and Iredale (2010) distinguish between *enterprise* education with focus on personal attributes and skills that can be used in a variety of contexts and *entrepreneurship* education with focus on starting and running a business.

As shown by the discussion in the opening section, we adhere to the principles of enterprise education in which the focus is on the development of personal attributes and perceived skills related to entrepreneurship, rather than on the final act of starting a business. Our choice is motivated by the fact that the actual rate of startup creation is influenced also by factors outside the scope of higher educational institutions (e.g. economic downswings); an individual’s attributes and perceived skills related to entrepreneurship are something that higher education can reasonably aim to influence. As such, a meaningful objective for EE in higher education institutes is to build up the *entrepreneurial self-esteem* (ESE) of young people, rather than trying to make them entrepreneurs straight away. Indeed, EE is trying to give students skills and knowledge related to entrepreneurial career. An important goal is to develop the competences of students concerning entrepreneurship and give them self-esteem related to entrepreneurship: the feeling that if they would become an entrepreneur, they could succeed.

When referring to entrepreneurial self-esteem (ESE), we equate it with two similar concepts, namely self-efficacy and perceived behavioral control (e.g. Ajzen, 1991). Perceived behavioral control refers to the perceived ease or difficulty of performing the behavior. It is based on beliefs regarding the presence or absence of requisite resources and opportunities for performing a given behavior (see Bandura et al., 1980). In general, the greater this perceived behavioral control, the stronger the individual’s propensity to start up in business should be. According to Ajzen (1991) this is most compatible with Bandura’s (1982) concept of perceived self-efficacy, which refers to an individual’s self-confidence in specific tasks and situations (Boyd and Vozikis, 1994). In this sense, a person can have high self-efficacy in one area, but low self-efficacy in another (Wilson et al., 2007). Self-efficacy is based on individual’s self-perceptions of his skills and abilities, and thoughts on whether he has the abilities perceived as important to task performance, as well as the belief that he will be able to effectively convert those skills into a chosen outcome (Bandura, 1989). Self-efficacy has been extensively utilized in career theory literature, entrepreneurial career among other things, and previous studies have found that higher entrepreneurial self-efficacy correlates with higher entrepreneurial intentions (e.g. Wilson et al., 2007; Krueger et al. 2000; Boyd and Vozikis, 1994).

The interest we give on ESE is justified by its potential role in shaping the entrepreneurial propensities of individuals. As an example, Armitage and Conner (2001) observed that the entrepreneurial self-esteem (i.e. PBC) accounted for significant amounts of variance in entrepreneurial propensity and behavior. Also, Ingram et al. (2000) found that it has a direct effect on start-up behaviors, in similar fashion as Jung et al. (2001). Kautonen et al. (2013) found that entrepreneurial self-esteem (i.e. PBC) contribute to the prediction of entrepreneurial behavior over and above its mediated influence via entrepreneurial intention. In fact, Ajzen (1991) suggests that entrepreneurial self-esteem (i.e. PBC) has a double role in explaining the formation of entrepreneurial propensity among individuals: perceptions about one’s entrepreneurial abilities have a direct effect on the actual behavior. As such, if we hope to foster the entrepreneurial behavior of young individuals, we should pay particular attention to the development of their entrepreneurial self-esteem.

The general impact of higher education studies on ESE (H1)

Some studies suggest that higher education reduces the likelihood of entrepreneurship (Henley, 2007; Nabi et al., 2010) while others seem to show an opposite effect (Lanero et al., 2011; Zhang et al.'s 2013; Blanchflower and Meyer, 1994). At the conceptual level, higher education studies should impact the development of individuals' entrepreneurial self-esteem. More particularly, we would expect this impact be somewhat negative. Indeed, during the higher education studies, individuals learn more what successful creation of new businesses actually requires. Individuals might have rosy ideas about entrepreneurship when they enter higher education institutions. These rosy ideas are concretized during studies when individuals learn (either through lectures, case studies, real examples, and/or entrepreneurial projects) what entrepreneurship actually requires. Once individuals have more concrete ideas about the requirements related to entrepreneurial career, their perceptions about their own abilities to succeed in entrepreneurial endeavor (i.e. entrepreneurial self-esteem) should decrease somewhat. This is due to the fact that most higher education programs do not intend to promote entrepreneurial behavior in the first place (e.g. Aronsson, 2004). As such, we propose the following hypothesis:

H1: Entrepreneurial self-esteem develops negatively during higher education.

Gender differences (H2)

As both existing enterprise statistics and research on entrepreneurial propensity (e.g. Linan, and Chen, 2009; Yordanova and Tarrazon, 2010; Kautonen et al., 2010; Lee et al., 2011; Zhang et al., 2013) have shown that women have less desire to start new businesses than men, gender is included in our theoretical model as a factor. More specifically, we claim that there are gender differences in terms of the initial level of ESE and its development over time.

A recent European Commission (2012) study on alumni of entrepreneurship programs found that female alumni score lower on entrepreneurial self-efficacy than their male counterparts, but higher than the control group (cf. Wilson et al. 2007). In Zhao et al.'s (2005) study, gender was not related to entrepreneurial self-efficacy but was directly related to entrepreneurial propensity. In their study women also had lower entrepreneurial propensities than men. Yordanova and Tarrazon (2010) found that gender effect on entrepreneurial propensities is fully mediated by perceived behavioral control and partially mediated by perceived subjective norms and attitudes. A plausible explanation behind this difference in ESE between men and women is that women might perceive a mismatch between their own characteristics and those needed in starting new businesses (e.g. Haus et al., 2013). Zhang et al.'s study (2013) offers also evidence that if both men and women receive EE, the entrepreneurial propensities of men changed more than the propensities of women. As such, we propose the following hypothesis:

H2: There is a gender effect on (a) the initial level and (b) the development of entrepreneurial self-esteem.

METHODOLOGY

The data used in the study comes from Finland. Five different universities of applied sciences participated in the study. Moreover, the population of our study is made of participants in six different study fields, namely culture (18 respondents), natural resources (23 respondents), hospitality (2 respondents), social/health (73 respondents), technology (29 respondents) and business (4 respondents). In the first wave (data collection in 2009) we got answers from 2977 individuals from these five schools and study fields. In the final follow-up data there are 149 individuals. This indicates how difficult is to get longitudinal data from many waves (see Harte and Stewart, 2010).

The data was collected using a self-administered questionnaire first time in fall 2009, and repeated in 2011 and 2012. As such, our data covers the whole study period from the first to the last year.

There is always a difficulty with data loss in longitudinal studies. For the analysis we accepted those individuals who had answers at least for two waves. In our data there are 62 individuals with all three data collection waves and 149 individuals with two measurement waves. We compared those with all waves to those who were missing at one wave on demographic variables (age, gender, mother's or father's professional

background as an entrepreneur). Given no statistically significant differences between the groups, selective attrition did not appear to be operating in this longitudinal data. For missing data we used estimation of means and intercepts with Amos. 62 percent of the respondents were female. The mean age for the respondents was 23 in year 2009 (min. 19, max. 47).

The main outcome variable in the model is Entrepreneurial self-esteem (ESE). The ESE scale included 5 items. It was measured in three waves: 2009 (first study-year), 2011 (third study year) and 2012 (fourth study year). The Table 1 below gives the reliability analysis for the scales each year and the minimum and maximum scores. As can be seen, the ESE scale demonstrates an acceptable reliability, i.e. above 0.70.

Table 1. Item reliability, mean scores and standard deviations for Entrepreneurial self-esteem (ESE).

	Cronbach's alpha	min	Max	mean	sd
ESE 2009	0.77	1.2	6.4	4.2	1.0
ESE 2011	0.80	1.0	5.8	4.0	1.1
ESE 2012	0.73	1.0	6.6	3.9	1.1

To investigate the potential differences between male and female students, we coded *Gender* as 1 for male students and zero for female students. Table 2 presents the correlation matrix for the observed variables. There are strong correlations between the different measures of Entrepreneurial self-esteem, as could be expected in repeated measures of the same variable in different years.

Table 2. The correlation matrix.

	Gender	ESE 2009	ESE 2011	ESE 2012
Gender (1 = men)	1 (149)			
ESE 2009	0.23** (149)	1 (149)		
ESE 2011	0.12 (62)	0.57** (62)	1 (62)	
ESE 2012	0.20* (149)	0.55** (149)	0.70** (62)	1 (149)

Latent growth curve modeling (LGC) was utilized to test the model of development of perceived behavioral control. LGC is a useful analytic tool for analyzing longitudinal data, because in addition to means, it accounts for both within person and between person variance in the statistical model. Multiwave data allows more effective testing of systematic inter-individual differences in change. Model includes two growth parameters: a) an intercept parameter representing an individual's score on the outcome variable at the initial state, and b) a slope parameter representing the individual's rate of change over the time period of interest. (Byrne, 2010, 305.) In this study we used 3 measurement waves at 1- and 2-year intervals (2009, 2011, 2012).

First we focused on modeling individual differences in growth. In order to examine growth of ESE, a 2-factor Latent Growth Model (LGM) was used. The Intercept factor describes the initial level of ESE (intercept mean) and individual differences in initial level (intercept variance). The factor loadings for ESE were set at 1 for each time because the intercept is a constant for individual across time. The Slope factor represents the rate of change (slope mean) and individual differences in growth patterns (slope variance). For testing a linear growth model, these factor loadings were fixed to correspond to a linear time scale (0, 2, 3). The parameters of growth were estimated using structural equation modeling with Amos 19.

Gender is used as person covariates in the model. The goodness of fit of the model is estimated using the following indices: χ^2 value, p value, the Root Mean Square Error of Approximation (RMSEA), Normed Fit Index (NFI) and Comparative Fit Index (CFI).

RESULTS

The general impact of higher education studies on ESE (H1)

The estimates of growth parameters of the linear model are presented in the Table 3. The model produced a good fit ($X^2=5.159$, $p=0.161$, $RMSEA=0.07$, $NFI=0.95$, $CFI=0.98$).

As can be seen from the Table 3, the estimated mean for intercept (ICEPT) is 4.2. This mean describes the level of Entrepreneurial self-esteem at the beginning of studies among all students. In a 7-point Likert scale this mean represents rather positive perception of one's entrepreneurial self-esteem (the middle point 3.5 represent a neutral perception, i.e. not negative nor positive). Moreover, the estimate for the slope mean (SLOPE) is significant and negative (-0.10) in the Table 3. This observation seems to suggest that Entrepreneurial self-esteem decreases during studies in individual level. This observation gives support to the hypothesis #1. From the Table 3 we can also see that the covariance (-0.02) between the initial state and growth rate is not significant, which would mean that the initial level of ESE is unrelated to the rate of change. This observation seems to suggest that whether a student has a low or high entrepreneurial self-esteem in the beginning of the studies, it does not have an effect on the change of entrepreneurial self-esteem; a lower initial level does not increase/decrease more than a higher initial level. Moreover, the variance related to intercept is significant, which means that there are a strong inter-individual differences in initial scores. This observation seems to suggest that individuals have to start with a different mental stance regarding entrepreneurship. This may relate to individuals' general self-efficacy. Finally, the variance related to slope is not significant. This indicates that there are no statistically significant differences in the development trajectories, which could indicate that the entrepreneurial self-esteem develops in the same direction for all students.

Table 3. Estimates of growth parameters of the linear model.

	Estimate	S.E	C.R.	p
Means				
ICEPT	4.20	0.08	50.88	***
SLOPE	-0.10	0.03	-3.81	***
Covariances				
ICEPT $\leftarrow \rightarrow$ SLOPE	-0.02	0.04	-0.54	.60
Variances				
ICEPT	0.659	0.132	4.990	***
SLOPE	0.028	0.019	1.519	.13

Gender differences (H2)

Furthermore, from the Table 4 we can see that gender has a significant effect on the intercept but not on the slope parameters. The significant effect of gender on the intercept means that ESE is higher for male students than for female student in the beginning of studies. Indeed, the mean estimates for women are 4.0 (2009), 3.9 (2011) and 3.8 (2012), and for men 4.5 (2009), 4.2 (2011), and 4.2 (2012). The result supports the hypothesis #2a, i.e. there are gender differences in the initial level of ESE. The non-significant effect of gender on the slope, on the contrary, would indicate that there are no gender differences in the development of ESE during the study years. As such, ESE seems to decrease both among men and women in similar fashion. As a consequence, we did not find support for the hypothesis #2b.

Table 4. Estimates of growth parameters.

	Estimate	S.E.	C.R.	P
ICEPT \leftarrow Gender	0.49	0.17	2.94	.003
SLOPE \leftarrow Gender	-0.02	0.05	-0.32	.747

DISCUSSION

We have made an attempt in this study to increase our understanding about the development of entrepreneurial self-esteem during the university studies from 1st to 4th study year and the role of gender in this. Our empirical sample consisted of a unique panel data from five different universities of applied sciences in Finland, students representing six different study fields. The analysis of change on multi-wave panel data was done using latent growth curve analysis with structural equation modeling.

As a summary, our empirical results are twofold. First, the entrepreneurial self-esteem of students seems to decrease during higher education studies. Second, while entrepreneurial self-esteem is higher for male students than for female students in the beginning of studies, entrepreneurial self-esteem seems to decrease both among men and women in similar fashion. Below we comment each of these findings, relate them to the existing literature, and propose avenues for future research.

Entrepreneurial self-esteem decreases during higher education studies.

As expected, our empirical observations over four years confirm that, in general, the entrepreneurial self-esteem of students in higher education seem to decrease during the studies. While the focus of other longitudinal studies have been more on the development of entrepreneurial propensity (i.e. intention) than development of ESE, the findings of these studies are similar to ours (e.g. Fayolle et al., 2005; Henley, 2007; Nabi et al., 2010). Based on our findings, it seems that individuals at the beginning of their studies seem to have a greater confidence in starting their own businesses than they do after studying four years in the higher education.

It is, however, quite typical that individuals overrate their capabilities to perform a distant action. In fact, humans have a tendency to rate temporally distant actions based on positive aspects (pros), and temporally near actions based on negative aspects (cons) (Eyal et al., 2004). In this respect, our finding is logical: an incoming student in higher education may overrate his/her capability to start a business after graduation because he/she is evaluating a distant event and only looking at the positive aspect of that event. At the time of graduation and closer to the actual entrepreneurial event, the same student is probably more realistic about his/her own competencies vis-à-vis the entrepreneurial event and other career options that are more proximal. In these situations, students are more attached to the cons than pros, and hence, entrepreneurial self-esteem show decrease compared to the initial level. Future studies in entrepreneurship could explore this phenomenon by comparing what kinds of attributes student attach to entrepreneurship and how these attributes, potentially, change during the higher education studies.

Gender differences

Our study found support for the claim that women have lower level of entrepreneurial self-esteem than men (e.g. European Commission, 2012). Indeed, we found out that entrepreneurial self-esteem is higher for male students than for female student in the beginning of studies among the studied Finnish higher education students. This observation seems to be in line with those studies that demonstrate that male students seem to have higher entrepreneurial self-efficacy (Wilson et al., 2007) and entrepreneurial propensities (e.g. Zhao et al., 2005; Linan and Chen, 2009; Lee et al., 2011) than female students. Furthermore, while Zhang et al.'s study (2013) observed that entrepreneurial propensities of men changed more than among women during an educational program, our observations among Finnish higher education students failed to identify similar effects in terms of entrepreneurial self-esteem. Based on our empirical observations, there does not seem to be any gender differences in the development of entrepreneurial self-esteem during the study program: entrepreneurial self-esteem seems to develop (i.e. decrease) in similar fashion among men and women.

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ENTREPRENEURS AND SMALLS COMPANIES ORGANIZATIONAL NETWORKS IN MEXICO

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ABSTRACT

The purpose of the article is to identify the actions taken by employers of organizational networks which have a direct or indirect impact in the growth of rural enterprises in Mexico. For this purpose, common characteristics were analyzed, such as entrepreneurship activities, integration and management process at the Red Nacional de Desarrollo Sustentable (RENDRUS) network, which belongs to Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA) of the Federal Government.

Keywords: Business management, business groups, enterprise social networks

INTRODUCTION

One of the key elements of rural small businesses in Mexico today is diversification into non-agricultural activities. Lately there has been a growth of micro businesses engaged in various activities such as the transformation of raw materials into different products related to tourism services, grocery stores, recycling of materials, etc. Such developments are consequences of building organizational networks in home communities, or in Mexico or even internationally.

The main objective is to demonstrate how the actions done by the employers within an organizational network, affect the growth of rural enterprises in Mexico. For this, the characteristics of the business groups, the activities of employers in the construction and integration successful networks and the management performance were analyzed. The selection of companies is from The Red Nacional de Desarrollo Sustentable (RENDRUS), which belongs to Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA) of the Federal Government, which main objective is to support small rural entrepreneurs who design strategies to growth.

Companies which are considered in the study belong to the following states: Chihuahua, Coahuila, Michoacán, Querétaro, Puebla, Veracruz, Mexico City, Guanajuato and Morelos. The methodology was conducted by reviewing data from official Mexican government sources, mainly from RENDRUS; besides the design and implementation of in-depth interviews to various entrepreneurs. Fifty companies were included.

The study was performed from the conceptual framework, since it is a strategy to understand the connections between all actors involved in the business: customers, suppliers of raw materials, intermediates, friends and family. In this sense “con las redes podemos observar interacciones institucionalizadas (procesos de negociación, cooperación, subordinación) así como develar conflictos, manifestaciones culturales y estrategias de solidaridad, amistad y familiares, en el marco de estructuras sociales diferenciadas que los influyen, condicionan o permiten” (Lugo-Morín, 2009, p. 131). In most of these businesses personal networks are the core of the organization. The entrepreneurs use their investment, to build a local, national or international brand.

In this sense, Ripollés and Blesa (2006), have established the importance of personal networks addressing for the company growth. We also propose to study the role of social networks as providers of intangible resources, which provide long-term competitive advantages. Personal networks are not only a process of generating data or information, but also considers how this information contributes to new businesses knowledge development. For these authors, a personal network is “Un conjunto de relaciones directas entre el empresario y distintas personas en su entorno socio-económico y familiar” (Ripollés y Blesa, 2006, p. 77).

For these authors personal network is divided into three groups: 1) Friends, 2) Customers and suppliers and 3) Research institutions, business associations and / or advisors. A personal network must have the following characteristics: a) Exchanges have a social entrepreneur and business dimension; b) Such exchanges can start a dimensional relationship either caused by a social or business event; c) Recognizing, the benefits of these personal networks, both social and business dimensions. Importantly, the division into three groups considered personal network needs to consider government institutions, which in some cases are elements of a personal network (when you have relatives or friends working in these institutions and link the employer with an official to support institution).

For a successful company, besides a personal network, it is important the role that the employer has within the organization, the quality of the product or service, creativity to diversify their products and services, knowledge of intermediaries, information on government mechanism to access to grants or investment funds, the brand design, customers and suppliers knowledge, etc. Many actors involved directly and indirectly in the production process and marketing of products and services.

The management of the entrepreneur as a member of a network

The networks function as active league immersed in social structures (Zontanos and Anderson, 2004). That is, the link is going to stretch or contract according to the requirements of the business and the different companies where they are working. However, how does these links remains active? Largely depends on entrepreneur skills and competencies for managing both your organization and the management of its venture capital (investment). The employer must be innovative in terms of product or service to get ahead and must consider all stakeholders involved at the enterprise network. He needs to be creative, with vision and positive characteristics (Giraudeau, 2007).

For qualitative research, one of the interview questions in depth has to do with the actions carried out to form the company and to commercialize the product or service. The answer in most cases was seeking support from family, friends, employers in the region and relationships with people who work in government institutions. That is, they used their social capital, at various stages of production and marketing. According to the interviews 90% of rural microenterprises are built with the support of family and the remaining 10% is done through partners, friends or community support from government institutions. The most important factor in the study is the social context or place for the social network in the community, region or country.

One of the characteristics of entrepreneurs is seeking to build a business. A behavioral action is the difference between the employer and the administrator, the last one mainly directed to manage the resources but not the investment decisions (Aldrich and Zimmer, 1986). Similarly, Ripollés and Blesa (2006) state that of entrepreneurs orientation is characterized by the level of innovation, risk taking and proactiveness. In both situations, the entrepreneurial attitude is the key to building an organization.

Most employers are proactive to generate ideas in order to get ahead in the business industry; that why they have participated at the Red Nacional de Desarrollo Sustentable (RENDRUS), mainly by direct invitation by a trusted friend or a government official. That is, actors and friends, people in government, potential customers and suppliers, etc., adhere to the capital of the entrepreneur.

Social capital is a set of tangible and intangible resources related to different actors, who help the organization through its social structure, to achieve its goals. This relationships work mainly in two ways; first as a glue to form networks and second, as a lubricant to facilitate exchanges of information between the actors. Social networks are not predetermined, they occur in different business contexts and are activated according to

the needs that arise in each of the companies (Zontanos and Anderson, 2004). From a local context, social relationships are more important than the economic and human ones. That is, "Social capital takes two forms: one for the community (bonding capital); the other runs of connections abroad, including communities markets"(Putnam, 2000, quoted in André and Rego, 2003, p. 120). Furthermore, it is important to include in this conception of social capital two other aspects: 1) Membership in places where close relationships generate stronger social networks, and 2) The importance of innovation (Baerenhold and Aasaerther, 2002, quoted in André and Rego, 2003). This makes sense because the acceptance and legitimacy of the product by community members will give the organization greater projection; and innovation will benefit an entrepreneurial orientation to design strategies to help the organization growth.

Miller (1986) believes that innovation not only refers to the creation of a new resource, also covers minor innovations resulting from new ways of combining the resources that already exist. The types of innovation: product, process, business and organizational proposed in the Oslo Manual (2007), are referring to consider the essence of the definition. Most entrepreneurs who were interviewed mention "innovation" as a competitive advantage for the product. In this regard, Michael Porter (1985), highlights this idea because it expresses the unique competitive advantage as an innovation. For example, the company "Xomex" in Guanajuato State, which produces crystallized xoconostle, also processes now a days the same spicy product as xoconostle cream, candy and jelly. Another example is the company "Apples Nanines" in Chihuahua state, which goes against junk food sold, so they sell dehydrated apples in schools, which have been very successful in the region.

The network perspective is reinforced by Huggins (2000), since it exposes the social role of the entrepreneur and the relevance of their involvement in the social context. That is, the owner of the organization participates in the network to access financial assistance and his ability to market his products or services to others, to learn the simplest actions of business administration, his capital to exchange knowledge and information, to establish new contracts with companies and institutions, etc. To summarize, the study of organizations from support networks methodology promotes economic development by providing information easily, and by the knowledge and behaviors management.

As we have seen before, entrepreneurs are actors within a complex network where besides customers, suppliers and governmental and nongovernmental institutions, are business groups, which strengthen the bonds of communication and exchange of information between participating firms. The characteristics of these groups are presented.

Business groups and their characteristics

By business group we understand a set of companies or people who join because they have common goals and interests for which they work. Entrepreneurs, as seen above, are characterized by being responsible for the operations of their businesses, create links with other actors such as community; customers; suppliers; families; local, regional, national and international economic networks; and creating communication links and working with the productive sector, both in their localities and spaces beyond the borders of Mexico (González and Basaldúa, 2007). In this manner, "En el análisis de redes no se presta tanta atención a los atributos de los actores que están en la red como a los vínculos que se relacionan unos con otros, para dar una posible explicación de la conducta de los actores implicados" (Mitchell, 1969; quoted in Requena, 1989, p. 140). Therefore, in the networks framework, clusters are more complex because the term network not only applies to one company. 34% of companies surveyed belong to an association or business group. For example, the company "Don Mateo de la Sierra" in Michoacán, belongs to "Union of mezcaleros" with 200 members. The company "Vinata Don Felix" in Chihuahua, belongs to a group of winemakers, and it is through this union how they satisfy volume orders. The company "ornamental fish" in Morelos state, is made up of 39 members and operates as a franchise with a revolving fund for contingencies. The company "Paradise Ranch" in Puebla, belongs to livestock Tenanpulco organization, which has served to organize farmers in major projects, such as the Dairy Basin Region. The company "Regant S.A. de C.V." in Michoacán, where the owner belongs to the Association of avocado in Michoacán is important to satisfy the avocado fruit demand; also through the Association, the entrepreneur says he has attended many international conferences and has had the opportunity to acquire new knowledge to implement in his business.

Based on the above examples and the experiences reported by employers, it can be said that the fundamental union motive is that its members are "able" to link with the government, other businesses and members of their local authorities, in order to achieve their goals.

The clusters are business links who form an association, and other actors required for the network to function. These groups, according to the research, have the following characteristics expressed objectives:

1. Achieve a sense of "belonging and identity" among the members of this new network.
2. Build short-, medium and long term for the common benefit.
3. Generate a dynamic support among network actors.
4. Participate in decision-making in the localities where required.
5. Request training to government authorities, research centers and universities, according to the needs presented.
6. Innovate in their production.
7. Transfer knowledge among network members.

According to these, one of the features that referred in organizations is the need for employers and employees training. Some actors have acted as trainers of government agencies and universities.

Regarding RENDRUS, more than half of companies surveyed said they had received training from their company, especially related to productive projects. Furthermore, through product fairs and events organized by RENDRUS, employers have been able to expand its share capital by linking with other regional, national or international actors.

Another important feature of clusters innovation in its production processes, such as the case of the company "Dulfimex" which belongs to a cooperatives network structure (subsidiaries) in four rural areas of Mexico City: Milpa Alta, Tláhuac, Xochimilco and Contreras; which is dedicated to the production of sweets, mainly sweet potato. Its major products are the pumpkin skulls. The main innovation is the sweets confection for people with diabetes, a situation that has diversified its products.

RENDRUS, as a case study for this research has played an important role with regard to the participation of organizations and business groups that enables the exchange of data, products and services between the companies participating in the Network. Aldrich and Zimmer (1986) introduced the term brokers to refer to actors whose function is to link people with complementary interests, transferring information and facilitating the interests of persons not directly connected.

As seen throughout the article, a network can be considered as a specific type of relationship that binds a group of people, events and objects, and these relationships encompass social processes around the business relationship (Szarka, 1990; quoted in Ripollés and Blesa, 2006). In the relationship of employer and the company, in a wider network where new businesses there, the employer knows and dominates the external relations of the organization so that, entrepreneurship researches demonstrate there is little difference between personal networks and business networks (Ripollés and Blesa, 2006).

Burt (1992, quoted in Hansen, 1995, p. 7) has observed "that entrepreneur bring three kinds of equity to the process of founding an organization: financial resources, human resources skills, and social resources". RENDRUS through institutional and social gatherings promotes learning and training on innovative production processes in rural zones, articulating the business strategies and human development in rural areas. Also encourages employers to position their products in other markets, promotes the exchange of experiences and knowledge generated applicable transfer for sustainable rural development. Here are some comments from employers about their participation in the events organized by SAGARPA, some through RENDRUS and other governmental actors are presented:

- I decided to [participate in RENDRUS] because I made many contacts, plus I got to know how he had fared other companies, what their pros and cons about marketing (Apples Nanines- Chihuahua).

- RENDRUS gave me the opportunity to meet many places, gave talks and liked it a lot (Processing Pecadera-Chihuahua).
- It has helped me engage [the RENDRUS] to exchange information and get tips (Company Drip Hernández - Coahuila).
- It helped me to meet other entrepreneurs, I'd like to participate [The RENDRUS] (Nature In - Guanajuato).
- I like to participate in fairs because I can share my experiences with others (Xomex - Guanajuato).

The examples above are just a sample which allow a broader perspective on the relevance of fairs and exhibitions in shaping networks of entrepreneurs and increasing the organizations' social capital. Entrepreneurs are the main actors in building networks.

The actions of entrepreneurs to build successful networks

Socioeconomic conditions in which the farmers live in Mexico, have not been an obstacle for entrepreneurs to develop their inventive skills and propose new organizational strategies that contribute to rural development in their communities. A key player in the development and implementation of these strategies is the employer, since it has the opportunity to exercise different roles within an organization in aspects of decision making, communication and information and interpersonal relationships. So in relation to decision making, an employer can act as an entrepreneur, conflict mediator to different viewpoints, resource provider, and negotiator. With regard to the aspects of communication and information analyst participates as organizational performance and is a link with society and the environment by generating ideas, opinions and information. In interpersonal relationships serves as the emblem and model of the organization, while a director and coordinator of individuals and activities to practice. Ripollés and Blesa (2006) suggest that this set of relationships facilitate the exchange of different types of resources that employers can use to benefit your organization, so you are one of the most valuable assets, its capital.

Dickson (1998) states that to prevail in the market organizations must be innovative considering not only the launch of new products, but by generating or adoption of process improvements, and for that leaders need to be proactive, willing to invest in solving problems, and the increased capacity and quality of production, elements that have a positive impact on the marginal contribution of goods and services.

Based on the analysis in various states of Mexico businesses, the activities and ideas shared by them and which guide their business decisions are:

- Ownership and responsibility to the community. The employer is aware of the importance of your organization to the community and the importance of providing employment to families, mainly women.
- Development of a standardized business model that favors the optimization of resources. The employer recognizes that this helps to reduce costs.
- Concern for continuous learning and training employees, and the community in general.
- Participation in national and international fairs. After consolidating their product locally, the employer seeks support for participation in fairs and exhibitions.
- Recognizes the importance of certifications and compliance, to be able to join the big chains and export.
- Make a comparative analysis of the Benchmarking competition. The employer has determined who your competitors are and conducts follow-up to the actions they take in their products and production processes.
- Diversify your product. The employer tries to get as much of byproducts and related to the central well that sells.
- Recognize the importance of establishing links with governmental, educational, research, friends and family institutions, as this allows them to acquire knowledge and skills.
- There is a transfer of knowledge between families of different generations, and in which the children are learning the essential aspects of the business, and exercise suggestions for improvement.
- Dealing with customers and suppliers is usually straightforward, allowing the communication process as clear as possible.

We note that the role of the entrepreneur is very important for companies to be consolidated and are perceived as successful. From the perspective of the same RENDRUS, successful companies are those that can manage

themselves, they can manage their resources efficiently, rather than endowment assets. In other words, the key to business success is to have the skills, knowledge, organizational networks, processes and principles that allow you to make the best use of their resources. Therefore, we have selected a few companies that meet this requirement for efficient management of resources.

• **Puebla State: Company Vitamovil.**

Company that began operations in 2008, dedicated to making cosmetic products moringa oil. The product comes from a thesis, is a "Dietary Supplement" with two presentations: powder and capsules. Its main customers are in Tamaulipas and Guadalajara states; also has buyers in the United States. Staff are trained in handling and properties of products before making any sales activity, the organization has developed networks for marketing and has a well-defined structured organization.

• **Guanajuato State: Nature In.**

It is a company that started operations in 1995 with three products: peanut vinegar, garlic and chili peppers canned subsequently ventured into making sauces oils. The owner studied engineering in food. The company currently has 11 employees and has presence in Mexico City, Monterrey, Queretaro and Guanajuato states.

• **Distrito Federal: Granut.**

The company started from a group of women who belonged to a church and raised money for it, then one of them, housewife, was discharged in 2008 as an individual with business, for in 2011 constituted as a person moral. The organization sells nutritious snacks from dried fruits: mango, blueberry pineapple and apple; seed mix as lentils, wheat, beans, peanuts, chickpeas and sunflower seeds; or soy and whole grain amaranth and chocolate, energy bars and amaranth. Its flagship product is the pumpkin skulls, all under the brand "Magdalena 100% natural". Their products are not fried, are baked and seasoned with olive oil. Currently there are 12 women who collaborate in organizing and selling their products directly to the airport and shops Mexico City Metro, and in the cities and in states of San Luis Potosi, Toluca, Monterrey, Merida, Hidalgo and Puebla and chain stores in Liverpool with an intermediary.

• **Oaxaca State: INALIM Distributor.**

INALIM Oaxaca is a company dedicated to study, use, produce and market food products based on local gastronomy, in order to support and promote the comprehensive development of indigenous people of the state. The project company emerged in 2000 from the development of new products and fried grasshopper. The organization is dedicated to the sale of salt grasshopper, grasshopper dump and satisfying seasoning chapulín stratum of gourmet market. One of the great achievements is the placement of their products in the supermarkets Walmart (Bodega Aurrera, Bodega Express, Walmart). The products are marketed in cities and states of Chiapas, Guadalajara, Queretaro, Huatulco, Puerto Vallarta, Mexico City and Oaxaca also exports part of its production to the United States, the Netherlands and Italy.

• **Michoacán State: Regant.**

The company started from the seventies, however, in the nineties begins its growth as well as selling the oil to avocado as a food product, began selling beauty products like body lotions and face; hair shampoo, soaps, etc. The line on the skincare was a great success. The employer, a chemical engineer by profession, makes all its products, which care for his creation is even greater.

CONCLUSIONS

A network can have different purposes such as sharing information, interact with others, discover information, integrating information discovered, access to innovative ideas, creating new businesses, collaborating with members of the network, among others. People who are involved in a network must define exactly what do they want, which patterns and levels of connectivity must be followed, and assess their best to achieve their goals.

Networks should help them recognize opportunities or challenges and coordinate appropriate responses environmental changes. Even where entrepreneurship Ripollés and Blesa (2006) note that “los emprendedores deben estar conscientes de que su participación en las redes sociales, lejos de ser una pérdida de tiempo, constituye una fuente de recursos valiosos para el desarrollo de nuevas oportunidades de negocios, que a su vez se traducen en el crecimiento de sus empresas” (Ripollés y Blesa, 2006, p. 89)

Networking is a strategy that results from a partnership or coalition of companies based on a common goal, in which each participant maintains legal and managerial independence, but in which the benefit to all members involved will seek the network. Gulati et al (2011) states that elements of a network that explain the efficient performance of an organization are three: the scope, how diverse the network and how far can establish connectivity; wealth, this is how valuable the network resources which offers; and receptivity, the number of mechanisms or channels provided by the network for communication.

Note that a very important element in networks is flexibility, since companies can connect or disconnect to them, according to their learning needs and innovation. An entrepreneur remains in a network as long as it allows a profit for the organization, and this is the challenge which RENDRUS faces, it must offer a service that supports young entrepreneurs to position their products inside and outside their communities of origin. In this regard Huggins (2000) states that there is a valuable exchange and process interaction over a network, must prevail a relationship of trust and a desire to belong, based on formal and mechanical elements of informal groups.

Finally, entrepreneurs as actors within a network, in addition to their creative ideas, they must be innovative, have good internal and external communication, they must take into account their social relationships, because they influence their management behavior, now a days considered profitable, and helps them to diversify their products and services. Small entrepreneurs in Mexico, despite the sociocultural contexts, develop skills to cope with many of these organizations and they learn and identify training content from show rooms in different states, aslo with monthly or periodically meetings with representatives from each of the regions, which could be sponsored by a governmental agency as the Red Nacional para el Desarrollo Sustentable (RENDRUS).

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STRATEGY FORMATION FOR IMPROVED PROCUREMENT SUCCESS

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ABSTRACT

This paper examined the linkage between the enterprise and its procurement function, in the formation of strategies. In examining this linkage, a comparison will be made alongside the linkage between the enterprise and its procurement function. Furthermore the paper attempts to present a clearer understanding of strategy formation and procurement in enterprises. A literature review was conducted in which content analysis was applied in analysing the different procurement methodologies which could be viewed as strategic formation within enterprises.

Keywords: Strategic management, procurement/ purchasing, competitive strategy, trustworthiness

INTRODUCTION

“Procurement [Purchasing] is increasingly seen as an important strategic activity of the firm” (Lawson, Cousins, Handfield & Peterson, 2009:2649). Lawson *et al* moreover appraise procurement as being a key contributor toward aiding the firm in meeting the challenges of a progressively competitive and dynamic environment. Consequently, procurement has experienced a marked shift progressing from a tactical service function to a strategic integrative process. Through the evolution of simple procurement to strategic procurement, the function is able to be recognised as a greater role in corporate planning.

Handfield, Monczka, Giunipero and Patterson (2009) state that when defining how the enterprise will compete and prosper, it should clearly communicate; what markets it will compete in and on what basis; the long-term and short-term business goals; and the budgetary and economic resource constraints it is challenged by. The functions within the enterprise must align to the objectives of the enterprise. The strategy development process for procurement in the enterprise occurs on four levels (Handfield *et al*; 2009):

- Corporate strategies: these strategies will address the definition of business in which the enterprise wishes to participate and the acquisition and allocation of resources to each of the business units;
- Business unit strategies: in these strategies the scope of each business unit and the links with corporate strategy are examined. The business unit strategies also examine the manner in which the business unit will attain and maintain their competitive advantage;
- Supply management strategies: are part of the functional strategies in which the function of procurement will support the business level competitive strategies and thereby complement the strategies within other functions;
- Commodity strategies: strategies are formed for specific commodities being purchased and as such requires the achievement of goals. Such goals would ultimately result in the support of the procurement function, the business unit and finally the corporate strategy.

The formation of a strategy for procurement is distinguished by segregating the varying objectives of the procurement function according to their levels. Hugo, Badenhorst-Weiss and van Biljon (2006) identify the different levels of procurement objectives: strategic procurement objectives; tactical supply objectives and operational procurement objectives. The objectives of strategic procurement include:

- the assurance of the availability of procured requirements at a competitive price;

- the development of existing or new suppliers; and
- the preserve of investment in inventory to a minimum.

The objective of tactical supply is to:

- enter into long-term contracts with steadfast suppliers of strategic materials;
- to compile a project team responsible for the development of suppliers; and
- to study alternative inventory control systems.

Operational procurement objectives include:

- the maintenance of sound supplier relationships via ethical conduct and adherence to contract clauses;
- the study of conditions in the supplier market; and
- to conduct an inventory analysis.

PROBLEM STATEMENT

The assessment of the implementation and measurement of procurement strategies in enterprises is limited. Although it is not implied that procurement strategies are not examined and implemented, there is restricted understanding of how these strategies are formed. The formation of procurement strategy within enterprises is not linked to strategy.

RESEARCH QUESTION

Farrugia, Petrisor, Farrokhyar and Bhandari (2010) advise that the interest in a particular research topic usually starts the research process, yet it is the familiarity with a topic that aids in defining an appropriate research question. The research question will then arise from a perceived shortfall of knowledge within a subject area. The research question is created from the research problem. The research problem puts into question the linkage between the formation of the procurement strategy and the principal strategy of the enterprise. Therefore the research question is: Is there a link between the procurement function strategy formation and the enterprise strategy formation in enterprises?

OBJECTIVE OF THE RESEARCH

The development of a value adding functional strategy is not a simple task. Although extensive research exists in respect of the formation of enterprise strategies, the formation of strategies for procurement functions within the enterprise is limited. The primary objective of this paper was to examine the methodologies used in strategy formation by the procurement function within the enterprises.

RESEARCH PHILOSOPHY

Research Design

“A research design is the plan of action or structure which links the philosophical foundations and the methodological assumptions of a research approach to its research methods, in order to provide credible, accountable and legitimate answer to the research questions” (Gelo, Braakmann and Benetka, 2008). Research can be approached through using either empirical methods or non-empirical methods. Empirical research methods vary according to the tasks they perform. These can range from methods and techniques of sampling, to data collection methods, as well as methods of data-analysis. The methods elected and their application will always be dependent on:

- the aims and the objectives of the research;
- the nature of the phenomenon being investigated; and
- the principle theory or expectations of the researcher.

As the social sciences have grown, two schools of thinking have developed. The positivistic school and the ant-positivistic school (also referred to as the interpretivistic school). Anti-positivists do not agree with the positivist view that social sciences are comparable to natural sciences (Babbie and Mouton, 2010). Positivism is about “finding truth and proving it through empirical means” (Henning, 2004:17). Positivists believe in empiricism, the notion that observations and measurement is the foundation of the scientific undertaking. Positivist research argues for data content that can most suitably describe reality, even if it does not necessarily measure the assumed reality. Saunders, Lewis and Thornhill (2000) believe that in positivism the researcher will undertake the role of an objective analyst from which interpretations regarding the data will be collected free of influence. Positivistic research is well suited to business research, as business situations are both complex and unique. They are considered as a function of a given circumstances and individuals (Saunders *et al*, 2000).

Methodological Paradigms

The methodology involved a review from literature referring to different methodologies about procurement function as a strategic tool. The recentness of the sources varies. In some cases original sources were consulted to determine the origin of the concepts and challenges. This paper is then a reflection of the results from secondary research which includes relevant accredited articles, textbooks and policy documents. To ensure trustworthiness of the research, four criteria needed to be considered (Lincoln and Guba, 1985):

Credibility: As this research focused on literature, literature was sourced from the realm of management as well as higher education. Care was taken to search for current literature and literature from South Africa and abroad. As the process of content analysis was applied manually, all notes and schematics informing the final outcome of the content analysis have been preserved to ensure referential adequacy of the data.

Transferability: In this study the idea was not to illuminate further than the context of South African HEIs, so transferability pertains to how findings can be extrapolated to the South African higher education environment. This is covered in this study.

Dependability: As this research focuses on literature applied to the higher education environment as a whole, dependability is not important.

Confirmability: The notes and schematics leave an adequate trail of how conclusions, interpretations and recommendations can be traced to their source.

LITERATURE

Before further examining the linkages between strategy and procurement, these themes are briefly reviewed separately.

Strategy

Major strategy concepts started with the ancient Chinese military theorist Sun Tzu (Grundy, 2004). His famous concepts included dominance, strategic intent, resource-based competitive advantage and capability. In his infamous work “*The Art of War*” Sun Tzu provides a multitude of suggestions regarding how to seize advantage of the enemy when in a situation of conflict. In referring to the work of Sun Tzu, Michaelson (2001:xix) affirms that the principles of strategy are “*the same for all managers, all times and all situations*”. Unlike strategy, only tactics change and tactics are also modified to the times. Work by Michael Porter in “*Competitive Advantage*” as well as the emergent strategy of Henry Mintzberg is closely associated with the work of Sun Tzu. Michaelson (2001:xviii) believes that connected within Sun Tzu, are guidelines for business success.

In the 1920’s, the Harvard Policy Model was developed which is still applied by the Harvard Business School. According to this model, strategy is considered as a “*pattern of purposes and policies defining the company and its business*” (Anonymous, 2005). Strategies were thus developed in response to an evaluation of the enterprises’ strengths and weaknesses and its external threats and opportunities (also referred to as a SWOT analysis). Mintzberg, Ahlstrand and Lampel (1998) explore some of the history in strategy formation. Philip

Selznick's book (Leadership in Administration) in 1957 and Alfred Chandler's book (Strategy and Structure) in 1962 are identified. Selznick presents "*distinctive competence*" which discusses the need to join the enterprises' "*internal state*" with the "*external expectations*" of the enterprise. Selznick contended for the building of policy into the social structure of the enterprise. This later became known as "*implementation*". This school's (The Basic Design School) concept was then transformed by Chandler to establish business strategy and its' relationship to the structure referred by Selznick. Grundy (2004:63) claims that Chandler demonstrated an arduous account for the relationship between strategy and business structure.

Mintzberg *et al*, 1998:48) refer to H.Igor Ansoff's most influential book published in 1965, "Corporate Strategy" which grew to have a significant impact on the practice of strategic management in the 1970's. In 1977 H. Igor Ansoff stated that despite 20 years of existence of strategic planning technology, most firms were merely engaging the far less threatening predictive long range planning. Despite the significant impact it had on strategic management thinking, it is hardly present in today's strategic management practices and casts barely a pale allusion of its former influence. Michael Porter contributed formidably in the field of competitive strategy (Harvard Business School: web page). In the 1980's, Michael Porter turned the attention of strategy formation to industry or competitor analysis (Mintzberg *et al*, 1998:51). In 1980 he issued his first book, *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Michael Porter's thinking was that an enterprises' profitability was determined by the characteristics of the industry in which it operates and its position within it. These aspects would then determine the enterprises' strategy (Mintzberg, Ahlstrand & Lampel, 2005).

O'Regan and Ghobadian (2004:298) define strategy as the "*articulation of the means by which an organisation endeavours to convert its intentions into organisational capability*". They further explain that these endeavours are undertaken to optimise external opportunities and to mitigate any threats. Strategy according to O'Regan and Ghobadian (2004) is considered by many as the main driver of competitive advantage. It is also considered as one of the most effective ways for enterprises to cope with the changes in the business environment.

Procurement

Leenders, Fearon and England (1989) believe that the increase in management interest through necessity and improved understanding into the opportunities in the materials area has led to diversity in concepts within the organisation. The terms pertaining to purchasing, procurement, supply, materials management and logistics are used interchangeably. Leenders (1989) *et al* state that no agreement exists on these terms and managers could have undistinguishable responsibilities with significantly different titles. Hugo and Van Rooyen (1990:7) described purchasing as "*the performance of all activities dealing with the provision of requirements to an enterprise or institution*". In 2006 (Hugo *et al*, 2006:6), the definition of purchasing is more referent to specific tasks performed by purchasing: "*The process of buying: learning the need, locating and selecting a supplier, negotiating price and other pertinent terms and following up to ensure delivery*". Hugo *et al* define supply management as: "*the identification, acquisition, access, positioning, and management of resources the organisation needs or potentially needs in the attainment of its objectives*".

Thompson, Strickland and Gamble (2005) refer to both the concepts of procurement and strategy, yet provide no definition or distinction of either. In respect of the term supply chain management, Thompson *et al* (2005:99) describe supply chain management in reference to the value chain as the activities, costs and assets associated with purchasing. Handfield *et al* (2009:8) state that anyone who has written about purchasing and supply management has varied the concepts related to these tasks, thereby creating confusion pertaining to these concepts. Handfield *et al* say that purchasing is a functional group which means it is a formal entity of the enterprise, as well as a functional activity in which it undertakes buying of goods and services. Supply chain management is not simply a new name for purchasing, but a more all-encompassing concept. Supply chain management is defined as "*a strategic approach to planning for and acquiring the organisation's current and future needs through effectively managing the supply base, utilizing a process orientation in conjunction with cross-functional teams to achieve the organizational mission*". Although the publication from which this information is obtained is titled "*Sourcing and Supply Chain Management*" there is no definition provided to the term sourcing, and no other discussion pertaining to sourcing.

As the distinction between the definitions and scope of the terms referred above are inconsistent, this paper will provide reference to procurement, purchasing and sourcing from the data that will be gathered. When referencing the alternate terms referred, the term “*procurement*” will be applied. Most procurement literature has been either conceptual or from the perspective of narrowly defined operating strategies (Gordon Murray, 2001). This paper will consider procurement not only from the closed definition of procurement or purchasing, but also from a larger definition as a key component in the supply chain which in turn expands to the value chain. The difference between procurement and supply chain management according to Handfield *et al* (2009) is that procurement is a functional group and therefore a formal entity of the organisational chart as well as a functional activity in which it is responsible for the buying of goods of services. Supply chain management, considers both current and future needs through the effective management of the supply base, with inclusion of cross-functional teams.

RESULTS SETTING TO THE RESEARCH

The Formulation Of Competitive Strategy

Due to the fast and ever changing environment in which modern enterprises operate, they have to be open-minded, experiment with new ideas and develop numerous strategic options. Enterprises must adapt to maintain coalition between the changing environment and their strategic position. This will require continuous strategy update to echo new information (Linford, Millard, Bosman & de Witt, 2003).

Porter (1998:3) advises that the essence of formulating competitive strategy is “*relating a company to its environment*”. Porter’s (1998:4) important work on competitive strategy as summarised in the infamous “*Forces driving industry competition*” model, lists suppliers and buyers as two of the five basic competitive forces (potential entrants, substitutes and industry competitors are the three remaining forces). Porter denotes that the goal of competitive strategy for an enterprise is to find a position in the industry where the enterprise can best defend itself against these competitive forces, or where they are able to influence them in its favour. Porter advised that the key for developing strategy is to delve below the surface and analyse the sources of each.

Strategic activity is abridged by Nadler (2004) into four types of activity. The board’s participation may vary in all the phases of strategic activity. The four types of strategic activities are:

- Strategic thinking. This is the first stage in strategy development and involves the collection, analysis and discussion of information regarding the nature of competition, the environment of the enterprise and business design choices.
- Strategic decision making. Fundamental decisions in respect of the enterprise portfolio and the business design are core to strategic thinking. This thinking will form part of the platform of the future allocation of restricted resources and capabilities.
- Strategic planning. Following the decision making process, priorities are ascertained, objectives set and resources organised in order to implement the decisions. Typically this will lead to the formation of a plan and a set of budgets. It must be noted that the plan would typically evolve due to changes in consequences through changes in the environment and new information being obtained.
- Strategic execution. The enterprise will now focus on implementing; monitoring results and undertakes corrective actions.

Strategy Formation For The Procurement Function

Svahn and Westerlund (2009) assert that the procurement function has increased its strategic importance in the enterprise. After a period of neglect, it has o(2000:171), reported that only 13 percent of 80 respondents (whose sales were on average 8.1 billion United States of American dollars) surveyed by Ernst & Young in the United States of America believed that their enterprises’ supply chain practices were fully aligned with their business unit strategy. However, the survey also indicated that supply chain executives did consider strategy when planning their supply chain initiatives and that these initiatives in turn depended on the strategies being

implemented. Findings from research by Oosthuizen (2005) established that South African enterprises that achieved above average performance were typically the same organisations that mirrored best practices observed in global structures. The implementation of strategies correlated highly to above average output performance.

Leenders *et al* (1989) deem the procurement function as a major decision area in the allocation of many enterprises' resource streams and therefore should be a significant player in the developing of the overall strategy. Not only should the procurement function ask how they can effectively contribute to the enterprises' overall objectives and strategy, but the overall objectives and strategy of the enterprise should also appropriately reflect the input and prospects offered by the procurement function. Procurement plays a strategic role in enterprises' profitability and increased shareholder value. According to Janda and Seshadri (2001), the average industrial buyer procures more than half of every sales expenditure unit on procurement products. The potential for the procurement function to have an effect on the bottom-line is therefore self-evident. Even just a one percentage point in saving through procurement can improve the margin on sales by half a point. Christopher (2005) poignantly states that supply chains compete, not companies. Enterprises increasingly see themselves as part of a supply chain that has to compete against other supply chains, rather than just simply a single enterprise competing against another enterprise.

The procurement function is considered to frequently fail in the development of strategies and plans that align with or provide support to the organisational strategies (Handfield *et al*, 2009). Reasons given for this include the exclusion of procurement personnel in senior-level corporate planning discussions, due to the view held of procurement being a tactical support function. The potential of advances that could be provided by of a world-class procurement function is also not fleetingly recognised by executive management. However, Handfield *et al* (2009) believe that these conditions are rapidly changing and that as such procurement is therefore being integrated within the strategic planning process within multiple industries. Supply chain management intelligence could provide supply chain market intelligence which in turn can contribute to strategic planning.

Procurement As A Management Task

Hugo *et al* (2006) believe that procurement as a management task, ought to participate at the highest level of management and therefore ought to be included in the overall planning of the enterprise. Strategic procurement and supply chain planning according to Hugo *et al* is planning for the long term and therefore must occur at the highest management level. The competitive position, profitability and market share of the enterprise is hugely influenced through effective strategic procurement decisions.

Handfield *et al* (2009:744) consider the increasing change in requirements of the procurement function with an enterprise. *"The mission, goals, and performance contributions required of procurement [purchasing] and supply by company executives have been increasing and will continue to do so"*. Globally, enterprises are being required to increase assistances in cost reduction, revenue generation and asset management. External factors are unremittingly fluctuating and will directly impact the role of procurement in adding to the success of an enterprise (Handfield *et al* 2009). The external forces that could affect procurement include: global competition; Mergers; acquisitions and supply market consolidation; advances in technology; increased governmental regulation; customer and channel dynamics; social and environmental responsibilities. These factors will influence change in the procurement strategies and practices of an enterprise.

Therefore the formation of successful procurement strategy is critical to the success of the enterprise. If the research is able to identify successful methodologies to be appointed for the formation of procurement function strategies, these can be employed by enterprises that do not currently have formal procurement strategies. Additionally, these could be applied to some extent by medium sized enterprises.

LIMITATIONS OF THE RESEARCH

A potential limitation of the research is the likelihood, of senior procurement executives of enterprises, revealing the detail of their strategy formation practices. This could be either due to the lack of strong strategy formation practices, or in the opposite extreme, in the case of having strong strategy formation practices which they would

not be willing to reveal. Particularly if these strategy formation practices have given their function or enterprise a competitive edge.

CONCLUSION

The commencement of this paper is aspired to gather information that will provide benefit to individuals or participants that are responsible for the creation of procurement strategy of enterprises. There may be cases where there is no substantiation of procurement strategy formation, and other cases where procurement strategy formation is formalised. The benefits of this paper could apply to both such procurement functions. The benefit that will be gained from this paper could be expanded from the procurement function to the complete enterprise, as procurement should be a key function within all enterprises.

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THE APPLICATION OF THEORY OF CONSTRAIN (TOC) IN AN ORGANISATION TO RESOLVE PROBLEMS AND TO BOOST PRODUCTIVITY

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ABSTRACT

The theory of constraints (TOC) identifies constraints which are otherwise labelled as waste by lean. It isolates these constraints and provide resources in order to buffer and/or eliminate them completely. Its underlying premise is that organisations can be measured and controlled by variation on three measures which are throughput, operational expense and inventory. TOC challenges managers to rethink some of their fundamental assumptions about how to achieve the goals of their organizations, what they consider productive actions, and about the real purpose of cost management in order to maximize throughput through sales. It is about understanding bottlenecks to a process and better managing these bottlenecks to create an efficient process. The paper identifies inputs that are causing constraints. It explains the methodology to isolates them and how and when to apply TOC in minimising their impact. In order to prove this, a research was carried out in the Bakwena mine in South Africa where TOC was used to resolve recurring problems. The end results has shown that when problem area are isolated, conditions observed, resources allocated at the problem area and action taken to address problems immediately, positive results can be achieved.

Keywords: Constrains, processes, resources, productivity, mining

INTRODUCTION

When running a successive company, it is imperative that management focusses on those issues that will create profit, minimise cost and may cause harm or slow production. Most companies put profit as the mayor factor in business success. They understand the fact that when cost are minimised, profit will increase. Many factors do lead to slow production and it is the duty of a manager to manage such activities. This paper will focus mainly on issues that may slow or cause harm to the company leading to bottleneck.

A bottleneck is a constraint or choke point that limits production output. A bottleneck is a stage in a process that causes the entire process to slow down or stop. In a communications context, a bottleneck is a point in the enterprise where the flow of data is impaired or stopped entirely(Rouse. M. 2014). Many manufacturing operations suffer from bottlenecks caused by one or more machines and the bottleneck may change depending upon the actual product being manufactured. Identifying and managing manufacturing bottlenecks can have a major impact on output and profits. A bottleneck restricts all production and time lost at the bottleneck can never be recovered. Attention and resources should therefore be focussed on bottleneck to ensure that machines continue to run as long as possible(Rouse. M. 2014).

On the other hand a constraint is a factor that limits a company's ability to achieve more of its goal. It is therefore imperative for businesses to identify and manage constraints. Because a constraint is a factor that limits the system from getting more of whatever it strives for. A business manager who wants more profits must manage constraints in order to improve business. There is really is no choice in the matter (Bates. S. 2014)Either you manage constraints or they manage you (Smith, N. M. 1995).

The Theory of Constrain (TOC)

The theory of constraints (TOC) is a management philosophy developed by Dr Eliyahu Goldratt (Goldratt, E. M. and J. Cox. 1986). It is a systems approach based on the assumption that every organization has at least one factor that inhibits the organization's ability to meet its objectives. TOC emphasizes the maximization of profit by assuring that the factor that limits production is used most efficiently. Once the constraining factor has been identified, the next step is to determine the throughput (the rate of production or rate at which something can be processed) per unit of the constraining factor. This is done by dividing the throughput per unit of product by units of the constraining factor required to produce each unit of product. The key to maximizing profit is to concentrate on selling and producing products that provide the highest throughput per unit of constraining factor.

According to the TOC, the goal of an industrial organization is to make money in the present and in the future. TOC uses the commonly used financial measures to quantify its overall goal of making money: net profit, return on investment and cash flow (Cox, Jeff; Goldratt, Eliyahu M. 1986). These financial goals are translated to operational. In order to make money in the present as well as in the future, an operating system should increase its throughput and simultaneously reduce its inventory and operating expenses (Goldratt EM, Cox J(1993, Rand GK(1990).

TOC supports a continuous improvement philosophy. In order to accomplish these tasks, the following questions should be asked (Rand. G.K. 1990);

1. *What to change:* every organization in a real environment is overwhelmed with problems and/or opportunities which need the managers' attention and/or corrective actions. However, limited time, effort and resources make it difficult to act on all such problems or opportunities. Hence, the manager has to find what should be changed, to effectively improve the performance.
2. *To what to change to:* once the core problems have been identified, the next step is to find the solutions. If sincere effort is not directed towards finding solutions to the core problems chaos and panic will result.
3. *How to cause the change:* perhaps the most difficult of the three questions is to find out how to cause the change in a system. In addition to the time, effort and capital required, managers often face the problem of emotional resistance by people in the organization who perceive change as a threat to their security. If 'to what to change to' is identified, but it is not possible to cause that change, then the solution is not of much use.

The Theory of Constraints suggests the following five steps to answer the above three questions and to continue the process of ongoing improvements(Goldratt. E.M, Cox J.1993, Rand GK. 1990).

1. Identify the system's constraints.
2. Decide how to exploit the system's constraints.
3. Subordinate everything else to the above decision.
4. Elevate the system's constraints.
5. If in the previous steps a constraint has been broken, go back to the first step.

These are all implicitly assumed to be fixed (Doran. J. 2005). This assumption leads many commentators to the conclusion that TOC measures have a short run time horizon (Gholam R.K. et al)

Drum-Buffer-Rope Scheduling (DBR)

Drum-buffer-rope is a manufacturing execution methodology, named for its three components. The drum is the physical constraint of the plant: the work center or machine or operation that limits the ability of the entire system to produce more. The rest of the plant follows the beat of the drum. They make sure the drum has work and that anything the drum has processed does not get wasted. The buffer protects the drum, so that it always has work flowing to it. Buffers in DBR have time as their unit of measure, rather than quantity of material. This makes the priority system operate strictly based on the time an order is expected to be at the drum.

Drum-Buffer-Rope Scheduling (DBR) is an approach to synchronized manufacturing. It assures that the inventory buffer in front of a capacity constrained resource remains at adequate levels without being too large (Goldratt, 1984, Goldratt, E. M. and J. Cox. 1986).). The constrained resource becomes the drum that determines the timing for the system. The buffer is the time related to supply of inventory before the constrained resource that assures the constrained resource will not be idled by fluctuations in the system leading up to it. The rope is "tied" between the constrained resource and the lead operation in the system assuring that too much inventory does not develop in front of the constraint, as shown in fig 1 below.

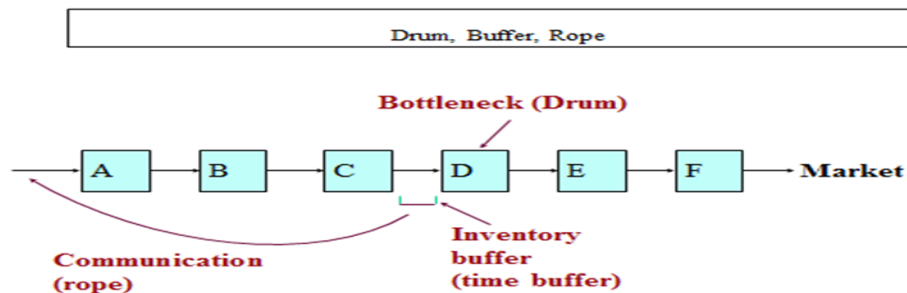


Fig 1: Drum-Buffer-Rope Scheduling (DBR) approach

Traditional DBR usually calls for buffers at several points in the system: the constraint, synchronization points at shipping(movement). S-DBR has a buffer at shipping and manages the flow of work across the drum through a load planning mechanism. The rope is the work release mechanism for the plant. Orders are released to the shop floor at one "buffer time" before they are due. In other words, if the buffer is 5 days, the order is released 5 days before it is due at the constraint. Putting work into the system earlier than this buffer time is likely to generate too-high work-in-process and slow down the entire system.

Within manufacturing operations and operations management, the solution seeks to pull materials through the system, rather than push them into the system.

The theory of constraints (TOC) and Lean

TOC can be used in conjunction with Lean thinking to leverage even more benefits for the enterprise. Like Theory of Constraints, Lean thinking is a means of enabling a growth strategy. Unlike Theory of Constraints, which primarily focuses on the bottleneck, Lean thinking is focused on reducing waste at all levels and in the process of doing so; it uncovers additional capacity that could be deployed for further growth. TOC and lean manufacturing are two popular business philosophies that have received a great deal of attention in the recent years. Their objective and underlying assumptions are well researched. One of their strength is to provides focuses in worlds of information overload, to guide practioners and to improve the organizational performance.

TOC Implementation

Bakwena mine is a progressive platinum mine in South Africa. It has seven mining shafts which are (a) Dintwa number 3 shaft, (b) Kettlele, Pendulum, (c) Phakathi, (d) Mzana, (e) Keelinin and (7) Avery. The mine embarked on finding solutions to their efficiency and product output but realized that it was difficult to meet the production levels due to bottlenecks in the operations. The balanced capacity chain on the shaft remained the “Achilles heel” of the shaft. The aim was to increase output of the mine as a whole within a short time. This was difficult to achieve while the mine remained under pressure and at the same time, trying to maintain current performance.

These combined effect of problems encountered, which included: variation in stoppages, human factor, material required, government intervention (section 14 policy), industrial strikes, lead to a number of lost blasts. This loss in production is depicted in Dintwa number 3 shaft which will be used as a case study. (see figure 2 below)

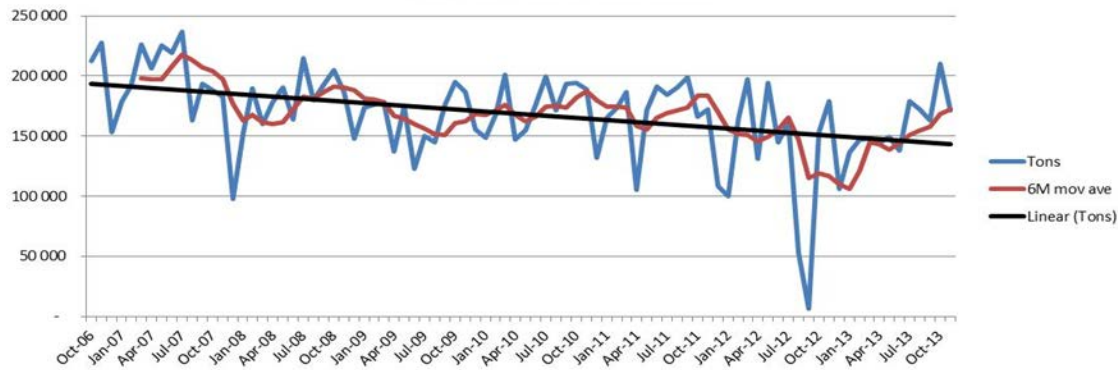


Fig 2. Dintwa Number 3 production output (Source Bakwena mine).

The following main bottlenecks were linked to the decline in production in Dintwa Number 3 shaft, causing constraints;

- **Cash Conservation**

The way that the cash conservation strategy was being implemented meant that very often managers who had the authority to approve certain expenditure did not do so but rather escalated the decision upwards in the organisation. The result was a much longer and arduous process of getting decisions made regarding putting of necessary protective capacity or buffers in place to support the desired increase in the primary flow. Examples are the length of time that it took to get the underground half level material stores in place, the buffer of skills, and the spare-winch per half level at Dintwa Number 3 Shaft.

- **Standard Crew Size Template**

The policy of having a standard crew size for stoping (blasts) and development crews ignored many of the factors that influenced whether the crew could achieve a good blast every day. It failed to take into account the amount of time the crew spend travelling to the work place, the quality and pressure of the compressed air available at the face, the quality and reliability of the rock drills, the specific geological conditions, what the crew was expected to do besides drilling, blasting, supporting and cleaning. The standard crew size was built into the budgets and into the SAP system. Once it was in the SAP system, it was once again a long and arduous process to change it.

- **Standard Bill Of Material (BOM)**

The Standard BOM for stoping and development crews also failed to take into account specific conditions under which each crew was operating, for example, geological conditions, the quality of the materials supplied, etc. The Standard BOM could be over ridden but this again required many signatures and was time consuming. This resulted in crew members not getting materials that they required.

- **Inflexible Budgets**

If there was a need to spend some money for something that was not in the budget, it is again a long and arduous process to get the expenditure approved.

- **Recruitment Process**

The recruitment process was very long (80+ days). However, it was difficult for them to start the process without there being a vacancy allocated by SAP system. This process of getting the vacancy into the SAP system and the approval to fill it could be long and arduous and only once this has been completed, could recruitment process start.

- **Balanced Score Card**

Although efficiencies could no longer form part of the balanced score card, there were situations where managers delay or refuse to make decision which would in the long term be of benefit to them. Furthermore some managers complained that they had no idea, until the end of the year, as to how they were performing with regard to the balanced score card. This substantially reduced the effectiveness of the balanced score card as a tool to drive the desired behaviour.

- Standard Manning/Staffing Template

The current standard template did not cater for the refresher training when mining personnel returned from their annual leave. There was a delay in days spent in admin and other days in medical centre bringing the total days that the person was not available to production, to 11 days.

- Bonus system

There were two things about the bonus schemes that were problematic:

The fact that the bonuses are capped meant that high performers are not motivated to perform above the maximum.

- Meetings

There was a general tendency throughout the organisation to arrange and to cancel meetings at a very short notice resulting in important discussions and decisions being delayed.

Operations

From Jan 2007 the mine was losing production at a rate of 15% per annum resulting in loss of profit. It had to apply retrenchment policy and reverted to cost saving exercise.

The mine decided to hold a strategic strategy review that took place in 2012 with the intention of increasing production and improve the profitability. On the 23rd October 2012, a presentation was made on the Theory of Constraints (TOC) Production Flow Solution for Mining. Resulting from this presentation, it was decided to introduce TOC at Bakwena mine. The desired outcome was to ensure constant flow and an overall reduction in the unit cost and to ensure successful implementation of the TOC philosophy which would ensure increased production volumes from the mining operations, consistent and stable production flow. An initial improvement in production output of between 5% and 10% was targeted.

By making use of five TOC steps as stipulated in TOC (see section 2, the mine focused mainly on the DBR approach system. They identified wickest links, where constraints were occurring. Decisions were made to apply buffers at these areas. They decided to exploit the system by using these buffers as banks of physical objects before a work centre. They used two buffering systems: **stock buffer** and **time buffer**. The purpose of the stock buffer as shown in fig 3 was to provide the next chunk of the flow (the one that consumes from this stock buffer) with availability of raw material, semi-finished products and components or finished goods without too much excess inventory.

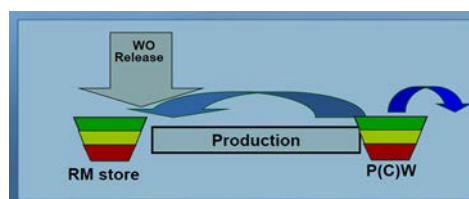


Fig 3. Stock Buffer production flow system.

When production was about to be constrained due to material shortage, production personnel implemented the stock buffer in order to allow production to flow. **Time Buffer** is assigned to the Customer Order which is the elapsed time for the works order(WO) to be processed in the production area and it is parts that are necessary for the customer's order. The Rope mechanism is used for Material Release and is determined by deducting the Production Buffer from the Due Date (DD).

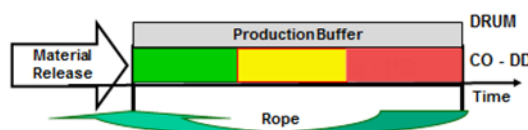


Fig 4. Time Buffer production flow system.

Time Buffer for Production in fig 4 is called the PRODUCTION BUFFER and it is measured in time, its size is present. For it to work properly, the size of the Red zone should be not less than the cumulative TOYCH TIME needed to process the work order. It serves 3 objectives on different stages of handling a customer order;

- (1) to check and determine what completion date can be promised to the client (sales and production planning)
- (2) to determine the work order (WO) release date (production planning)
- (3) to give production management “early warning signals” about the risk of the WO NOT being completed on time and to prompt for corrective actions (execution control) and
- (4) it collects information in Process of Ongoing Improvement (POOGI) (system analysis)

To use time buffers, there should always be enough (but not excessive) work in the time queue before the constraint has adequate offloading space behind the constraint. These constraints, if properly identified and broken, provide the fastest route to significant improvement of the system and can provide the basis for long term, strategic improvement

RESULTS

The success of TOC implementation was reflected in the results shown below as shown in fig 5 below.



Fig 5. Dintwa Number 3 production output (Source Bakwena mine).

- Costs

The mine had spent R21,199,081.31 on TOC project. Production improvements during this period rose from 5500 Tons per day to 7500 Tons per day.
- Positives
 - On the issue of safety there was a significant decrease in lost time injury (LTI) which came down to 3.71 which was a 2 year low. Achieving a whopping improvement of 82%
 - The relationship between management and workers improved drastically. This cascaded to mine –union relationship. There was a positive employee morale leading to improvement in absenteeism records.
 - Production improved from 5500 Tons per day to 7500 Tons per day (refer to figure 5)
 - Cost per ton increased in the 2nd half of the year which equated to a variance of 8500 per tons per day
 - Rand per ounce increased in the 2nd half of the year due to TOC implementation.

CONCLUSION

It is obvious that TOC has broad applicability in various operations activities. The results have shown improvements in productivity and also in cost saving exercise. It took a while for positive results to show but it was worth the waiting. The introduction of a buffer system provided much support to the operations which alleviated bottlenecks.

A manufacturing bottleneck is a constraint or choke point that limits production output. Many manufacturing operations suffer from bottlenecks caused by one or more machines and the bottleneck may change depending upon the actual product being manufactured. Identifying and managing manufacturing bottlenecks can have a major impact on output and profits.

A bottleneck restricts all production and time lost at the bottleneck can never be recovered. Attention and resources should therefore be focussed on bottleneck machines to ensure that they continue to run as long as possible.

Management of buffers at machines should be an ongoing business. They must be constantly stocked with material. This can be avoided by ensuring that there is a buffer stock in front, upstream and downstream of the bottleneck. Putting a buffer stock in place does increase inventory (WIP) and associated waste and costs, so it should be kept to a minimum. To do this buffers should be monitored and staff should be alerted when stock needs replenishing.

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JOB SATISFACTION IN THE SOUTH AFRICAN HOSPITALITY INDUSTRY

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ABSTRACT

Enhancing employee satisfaction, nurturing organisational commitment and ensuring job performance should be the cardinal foci of the hospitality industry. The aim of this research paper is to determine the levels of satisfaction of graduates employed in the South African hospitality industry. Exploratory research was conducted. Data was collected using a standardised questionnaire which was completed by 94 Tshwane University of Technology graduates. Descriptive statistics were used to analyse the data. Although the majority (65%) of respondents were satisfied with working conditions, they were dissatisfied with remuneration and employment benefits offered in the hospitality industry. Opportunities for advancement were rated as not satisfactory. However, most respondents indicated that they were fairly satisfied with working conditions in the hospitality industry.

Keywords: Hospitality industry; job satisfaction; employment challenges

INTRODUCTION

Internationally the tourism industry has experienced continued expansion and diversification, becoming one of the largest and fastest-growing economic sectors. The tourism industry ranks sixth in the world as a contributor to the global economy. It remains the largest service sector industry in the world (Lew, 2011) having taken with it economic development to diverse states and regions in the world (Ardabili *et al.*, 2011). International tourist arrivals have shown uninterrupted growth – from 25 million in 1950 to 278 million in 1980, 528 million in 1995, and 1087 million in 2013. It has been estimated that international tourist arrivals worldwide will increase by 3.3% a year from 2010 to 2030 to reach 1.8 billion by 2030 (UNWTO, 2014).

Africa has continued to enjoy sustained growth, recording 5% more international tourist arrivals in 2013, in real terms, an increase of 3 million. Africa has maintained a 5% share in worldwide arrivals and a 3% share in revenue. South Africa, the largest destination in sub-Saharan Africa, reported a 4% growth in 2013 (UNWTO, 2014). As well as being a key element in South Africa's economy, tourism is recognised in the National Development Plan as an important driver of economic and employment growth (PWC, 2014). Hotels and restaurants constitute an important component of the tourism industry, as most tourists patronise hospitality establishments. The hospitality industry, as a segment of the greater tourism industry, is an integral component of the South African economy.

The hospitality industry worldwide, and in South Africa, in particular, has been hampered by its inability to attract and retain quality employees. This has led to a severe shortage of skilled manpower to staff the ever-growing number of hospitality businesses (Richardson, 2008). Success in the hospitality industry is inextricably linked to the quality of its human resources. At a time when the industry is undergoing major restructuring in levels of service and knowledge-based growth, the need for a critical core of professionals to support the existing and emerging economic hospitality sectors, has assumed significant importance (Maxwell, Ogden & Broadbridge, 2010).

Various factors have contributed to staff shortages in the hospitality industry. These factors include long periods of unemployment; low remuneration; a dearth of formal qualifications; a high percentage of women; part-time and casual employment; a large number of low-skilled jobs; time worked outside normal business

hours; a negative image of the industry in the eyes of potential employees; poor utilization of student labour; and high staff turnover rates (Richardson, 2008). These factors are closely associated with recruitment and retention in the industry. Human resources management at all levels is one of the major concerns of hospitality managers. Staffing hotels and restaurants with willing and qualified employees has been a challenge for some time. Various researchers such as Kusluvan and Kusluvan (2000) and Blomme (2006) maintain that hospitality graduates continue to have an aversion to entering the hospitality industry despite the time, effort and money invested in their education to prepare them for a career in the hospitality industry. Hospitality graduates have a negative attitude to working and forging a career in this industry. Possible reasons for this attitude include perceived poor working conditions and low levels of job satisfaction (Kang & Gould, 2002). Critical issues to resolve in the hospitality industry are how to enhance employee satisfaction, nurture organizational commitment and ensure job performance (Tsai, Cheng & Chang, 2010).

Job satisfaction can be identified as the single factor that makes an individual successful, happy and productive. This feeling of satisfaction is the outcome of the perception of what the job means to an individual (Ay & Av aro lu, 2010). Job satisfaction can be viewed as “the pleasurable emotional state resulting from the appraisal of one’s job as achieving, or facilitating the achievement of one’s job values” (Locke, 1969, p. 316). It is generally accepted that a high level of job satisfaction will lead to improved performance (Tsai, Cheng & Chang, 2010, p. 4127), better attendance (Yang, 2010, p.617), reduced staff turnover (Zopiatis, Constanti & Theocharous, 2014, p.137) and an increasing willingness to work with others. On the other hand, a low level of job satisfaction is generally associated with lower performance and increased staff turnover. Researchers cite gender, current employment status and career outcome expectations as the strongest predictors of retention within the industry (Chuang *et al.*, 2007). Meeting younger employees’ career expectations is a critical factor for enhancing job satisfaction (Kong, Wang & Fu, 2015, p.162).

A study investigating job satisfaction levels among Hong Kong hotel employees, reveals that the most important factor is salary, followed by promotion, work, co-workers and supervision (Lam & Zhang 2003). Bustamam, Teng and Abdullah (2014, p. 392) and Pan (2015, p. 89) documented that financial rewards have a stronger impact on job satisfaction compared to non-financial rewards in the hotel industry in Malaysia. Various authors argue that career paths within the hospitality industry not being clearly defined, can discourage graduates from entering the industry. (Dewar, Sayers & Meyer, 2002). Employees with higher education levels have more job stress when compared to that of less qualified employees, who often experience higher job satisfaction (Tsai, Cheng & Chang, 2010, p. 4127; Millan *et al.*, 2011).

High levels of self-efficacy, task value and task importance tend to increase job satisfaction and employee motivation. Empowerment, leadership, internal marketing (Tsai, Cheng & Chang, 2010), external and internal job stress (Kim & Jogaratnam, 2010), employee involvement (Shunali, Arora & Khanna, 2014, p. 40) as well as ethical leadership (Kim & Bryner, 2011, p.1020) influence job satisfaction. Although working with guests is challenging and can influence job satisfaction, hotel employees report that arguments and tensions among fellow employees are more likely to influence job satisfaction negatively (Pan, 2015, p.89). Employees who experience high levels of interpersonal tension are also more likely to leave their jobs (O’Neill & Davis, 2011, p.389).

Employee motivation and subsequent job satisfaction decrease turnover intent (Yang, 2010). Employees who rate working conditions as poor or treatment as unfair are more likely to leave. While some intrinsic and extrinsic motivation factors revealed an association with turnover intention, it is employees’ perception of the factors that affect their turnover intention, and not whether those factors are present (DiPietro & Condly, 2007).

Employees who are committed to challenging work have lower turnover intention in their current jobs, as well as in the hospitality industry. Surprisingly poor remuneration, burnout and a skewed work-life balance are not the main predictors of high turnover among young managers in the hospitality industry. An absence of opportunities is one of the leading causes of high staff turnover. Employees with high turnover intention are more likely to be in jobs that are not challenging and do not offer learning opportunities. Leaders of organizations should set clear paths, which include learning opportunities and challenges that lead to promotion. Young managers who actively manage their own careers are able to find frequent promotion opportunities by switching organizations, but this does not happen as often within the same organization (Walsh & Taylor, 2007).

Inevitably turnover costs are higher when specialised posts, independent hotels, large properties and properties with high occupancy and average daily rates are involved. Replacement costs could be twice as high for employees who perform difficult tasks competently when compared to those employees who perform simple tasks perfectly. As the most expensive employees to replace are those in high-powered jobs in large upmarket hotels, industry practitioners should be encouraged to manage employees more efficiently thereby reducing associated costs (Tracey & Hinkin, 2008).

Retaining educated staff is becoming a major challenge in the hospitality industry (Walsh & Taylor, 2007). Gender, employment status and career outcome expectations are cited by Chuang *et al.*, (2007) while salary, benefits and marital status are some of the strongest predictors of retention within the hospitality industry (Yang, 2010; Young & Corsun, 2010).

METHODOLOGY

This study seeks to analyze hospitality graduates' perceptions of employment, including job satisfaction in the hospitality industry. Perceptions of graduates are determined by employment conditions in the hospitality industry. The results of these are based on a questionnaire designed to collect data on employment conditions that lead to perceptions of the hospitality industry among hospitality management graduates. A survey was conducted to determine hospitality graduates' perceptions of employment, including job satisfaction in the hospitality industry. Participants were hospitality graduates from 2004-2008 who had studied at the Department of Hospitality Management, Tshwane University of Technology, South Africa. A list of 435 hospitality graduates was compiled from the university database. After analysis of the pilot test data, a few minor modifications were made to the format of the questionnaire before it was e-mailed to participants. Completed questionnaires numbered 94 (response rate 22%) which was deemed to be valid for research purposes.

A self-administered questionnaire was used for the survey. The first section of the questionnaire consisted of a demographics section. The questionnaire contained twenty items by which to rate the level of job satisfaction in the hospitality industry. Six were yes/no (closed) questions and seven were open-ended questions. Answers to eighteen questions used in the questionnaire had responses which were rated on a 5-point Likert scale. In the survey participants were asked to rank the most common reason/s for hospitality graduates' leaving or remaining in the hospitality industry on a scale of 1 to 5, with 1 - 2 being most important, 3 important and 4-5 being least important. Questions relating to job satisfaction in the current positions of participants were rated on a scale of 1 to 4, with 1 being very satisfied, 2 satisfied, 3 dissatisfied and 4 being very dissatisfied. Only items relating to job satisfaction will be reported in this paper. The SPSS version 20.0 was used for all analyses. Response percentages in each category were calculated and presented in tabular form. Descriptive statistics and content analysis were used to analyze the data.

RESULTS AND DISCUSSION

Remuneration is often identified as one of the main contributors to job satisfaction (Lam & Zhang, 2003; Kim & Jogaratnum, 2010, p.323; Bustamam, Teng & Abdullah, 2014, p.392). In this study 95% of respondents were not satisfied with their salaries. On average 31% of respondents earned a monthly salary of between R10 000 and R 14 999 (1\$=R 11.50), with 26% between R 8 000 and R9 999. A large number of respondents (32%) earned less than R8 000 per month. This may be attributed to a number of variables inter alia entry-level positions, working conditions and benefits, and progression towards job satisfaction. Salary was also identified as the main reason for high turnover of employees working in hospitality and tourism businesses in the UK (Walmsley, 2004).

Table 1 Percentages for satisfaction indicators

Job stisfaction Descriptor	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
Working conditons	6.6	65.3	22.7	5.4
Employment benefits	1.4	10.7	46.6	41
Consultation and	4	49.4	37	9.3

involvement				
Advancement	0	23	45	32
Management and support	9.6	39.4	38.3	12.8
	4.32	37.56	37.92	20.1

The majority (65%) of respondents were satisfied with working conditions in the hospitality industry. A large percentage (22.7) of respondents were dissatisfied with 5.4% being very dissatisfied. This result indicates that working conditions were not so bad, but the industry should concentrate on improving working conditions. The study conducted by Kusluvan and Kusluvan (2000) and Richardson (2008) found that more than half of respondents described actual working conditions as being good and their working environment as being clean. If an employee experienced high levels of job stress, it would negatively influence job satisfaction (Tsai, Cheng & Chang, 2010).

A very negative attitude towards remuneration and employment benefits in the hospitality industry was evident with 46.6 % and 41%, respectively being either dissatisfied or very dissatisfied. Employment benefits (Kim, Hallab & Lee, 2009) and specifically payment (Millan, Hessels, Thurik & Aguado, 2011; Santa Cruz *et al*, 2014; Pan, 2015) and rewards (Chiang, Birtch & Cai, 2014) are seen as factors that are highly valued when determining the levels of job satisfaction

The level of satisfaction relating to consultation and involvement in the hospitality industry gives a varied image of the industry to its employees. Most respondents (49.4%) are satisfied with the level of consultation that exists in the hospitality industry. The hospitality industry should strive to involve the 37% and 9.3% of respondents that are either dissatisfied or very dissatisfied, to increase the chances of retaining them in the industry. Engaging employees in dialogue stimulates productivity of employees significantly, predicting a lower turnover rate for managerial employees. Management should give employees the opportunity to participate in organizational improvement initiatives that will motivate employees not to leave the organization. Job satisfaction is directly influenced and promoted by the level of involvement in participative decision-making (Kim & Jogaratnam, 2010, p.322). Furthermore job rotation is recommended to preclude job burnout and boredom with the day-to-day operations prevalent in the hospitality industry (Yang, 2010, p. 616).

The majority of respondents (77%) indicated that opportunities for advancement gave cause for concern. The lack of progression within the industry affected retention rates negatively. The tenure-based approach to advancement favoured by larger companies offers slow progression. The hospitality industry sets a fairly clear career path. However one problem is that progression is generally slow because it depends largely on the good offices of the employee's line manager, rather than on higher levels of skills or improved qualifications. Generally it takes 5 years for a junior to reach supervisory level, and another 12 to 15 years (Ladkin & Juwaheer, 2000) to reach management level. Promotions are often not administered fairly and opportunities for promotion to a management position are limited (Richardson, 2008). The industry needs to display transparency on the issues of promotions and career paths. Vocational training accelerates career advancement for employees, because they are in a position to gain experience more rapidly (Blomme, Van Rheede & Tromp, 2009). Inexperienced employees' expectations of reaching management positions soon after graduating are decidedly unrealistic. Leadership and empowerment positively influence the hospitality industry employee's level of job satisfaction (Tsai, Cheng & Chang, 2010).

Table 2 Mean and standard deviation scores of respondents' job satisfaction levels in the hospitality industry

Rank	Graduates questions on job satisfaction	Mean	N	Std. Deviation
1	Are you satisfied with your work benefits?	3.28	75	.708
2	Are you satisfied with the opportunities for advancement in the hospitality?	3.09	75	.738
3	Are you satisfied with the level of consultation at work?	2.52	75	.723
4	Are you satisfied with the level of work in your	2.43	75	.661

	current job?			
5	Are you satisfied with your working conditions?	2.27	75	.664
6	How do you rate your overall satisfaction level with work in the hospitality industry?	2.20	94	.742
7	Are you happy with your salary?	1.95	75	

Table 2 shows the mean and standard deviation scores of the level of job satisfaction in the hospitality industry. Responses were rated on a scale of 1 to 4, with 1 representing very dissatisfied and 4 very satisfied and then ranked from the attribute with which the respondents were most satisfied to the least satisfied. Satisfaction with work benefits is the most highly rated attribute, followed by advancement opportunities. The attribute with which they are least satisfied is remuneration. This was also supported by responses to the question whether they were happy with their salary. The hospitality industry is notorious for poor salaries and long working hours. The majority of respondents employed in the hospitality industry were very dissatisfied with working conditions as shown in Table 2 above. The finding is supported by various researchers (Richardson, 2008; Blomme, Van Rheede & Tromp, 2009). Being a typical service industry it is characterised by long working hours and low remuneration which correlates negatively with job satisfaction (Santa Cruz *et al*, 2014).

Table 3 Overall level of satisfaction with working in the hospitality industry

Ratings	Number of graduates	Percentages
Poor	16	17
Fair	45	47.9
Good	31	33
Excellent	2	2.1
Total	94	100

Most respondents (47.9%) indicated that they were fairly satisfied with working in the hospitality industry, followed by 33% who rated it as good (Table 3). Seventeen per cent (17%) of respondents rated the level of satisfaction as poor in the industry, which means the hospitality industry should improve working conditions. Aksu and Aktas (2005) also reported that despite long hours, low salaries and little support from colleagues, Turkish managers in first-class hotels were generally satisfied with their jobs due to the nature of the work itself.

In Table 4 higher scores indicate the items that are important and lower scores indicate those that are less important contributors to graduates' positive or negative perceptions of employment in the hospitality industry. Gender of hospitality graduates has a slight influence on job satisfaction with and perceptions of the hospitality industry. These findings are similar to those that emerged in the study by Chuang *et al.* (2007) who found gender to be a predictor of retention. Josiam *et al.* (2010) found no significant difference between genders when trying to determine attitude to work and motivation. Women tend to be satisfied with a job when they can interact with others who appreciate their role in the organization. As a result women are more likely to experience dissatisfaction with a job when compared to men. Managers need to be open to accepting feedback from female subordinates (Kim, Murrmann & Lee, 2009). When employees perceive management to be concerned about their well-being, they experience higher levels of job satisfaction with reduced turnover intent (Kim & Jogaratnum, 2010). It can be argued that while men and women with the same jobs and expectations report similar job satisfaction levels, women's expectations are said to be lower than men's.

CONCLUSIONS AND RECOMMENDATIONS

The success of global competition in the hospitality industry depends on a good recruitment strategy while retaining and maintaining a motivated workforce. This can be achieved by setting superior management standards, that will enable staff members to contribute to an organization's success while supervisors should allow employees to participate in decision-making, they should support and express concern for their employees. A motivated workforce can become a reality only when employees are satisfied with their jobs.

Table 4 Mean indications of job satisfaction by gender

Research focus area/ Research questions	Gender		
	Male Mean	Female Mean	Total Mean
Graduates' ratings of job satisfaction	18.2	16.65	17.51
Are you satisfied with the level of work in your current job	2.60	2.28	2.43
Are you satisfied with your working conditions?	2.37	2.18	2.27
Are you satisfied with your employment benefits?	3.37	3.20	3.28
Are you satisfied with the opportunities for advancement in the hospitality industry?	3.06	3.12	3.09
Are you satisfied with your level of involvement at work?	2.49	2.55	2.52
How do you rate your overall satisfaction with working in the hospitality industry?	2.09	2.31	2.20
How do you rate the overall quality of management and supervision at work?	2.51	2.57	2.54

Specific managerial implications include the investment in education and training which has a positive association with a contribution to the country's gross domestic product (GDP). Clear career paths and clear job descriptions will mean that both management and employees will be motivated thereby reducing staff turnover. Remuneration should be increased while opportunities for advancement and working conditions should be provided. Organizations should establish the reasons for high employee turnover and strive to address those. Top management should revisit conditions of employment with an open mind. The hospitality industry must provide a stable working environment in which the employee feel 'cared for' and should encourage a culture of staff retention. Organizations need to bear in mind that results are achieved when people who come first have their needs taken care of. Management should ensure that employees perceive a clear expression of an organisation's vision and values to ensure confidence in their supervisors. Due to the competitive nature and the diversity in the hospitality industry, job satisfaction is a crucial component of quality customer service.

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THE ROLE OF MONETARY POLICY IN THE SUSTAINABLE FUTURE GROWTH

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ABSTRACT

The article deals with the selection of targets by central banks of countries sustainable future growth. Policy implications for the decision makers are also suggested.

Keywords:. State monetary policy, targeting, sustainable future growth

INTRODUCTION

The current situation in the Russian economy, finance and monetary affairs dramatically complicated. The actual exhaustion of raw material sources of economic growth, lower oil prices US economic sanctions and the EU found its expression in the inhibition of the economic development of the country, devaluation of the national currency, higher inflation. Of course, that these problems pose monetary policy tasks that must adequately respond to them. Bank of Russia in these conditions is based on the idea of inflation targeting. On the need to transition to a form of monetary policy the Bank of Russia announced a few years ago.

STATE SITUATION

Inflation targeting provides for the establishment of a landmark as the consumer price index, and use all the tools of the Central Bank in order to achieve this goal.

At the same time, however, actually also conducted targeting money supply, because in the Guidelines for the single state monetary policy for the years included specific data on the implementation of the "monetary program. And only in the draft of a similar document for 2015 and 2016 and the period 2017 (hereinafter Main directions) the figures given in the form of applications, "forecast monetary program."

Apparently, such a change in the monetary program, the show must demonstrate its secondary, though for what program is needed even in the form of a forecast, if not for its realization.

According to the Chairman of the Bank of Russia Elvira Nabiullina increased uncertainty trends of economic development requires "create clear guidelines for the public and businesses, contributing to the development of domestic long-term investment and growth!"

But what could be the clarity, certainty and hence, in the landmark in the face of uncertainty? Of course, it is necessary, first of all, to seek domestic sources of financing investment, structural transformation of the economy and the emergence of long-term loans due to the low level of inflation and interest rates. However, to complete the transition to inflation targeting, as stated in the document listed below due to the fixing of inflation consistently low. But it is clear that the set target inflation rate for 2014 of 5% will be exceeded by the amount of at least more than 8%." In such circumstances, the Central Bank said that his aim in the medium term is to reduce inflation to 4% (and in the 2015godu - 4.5%). Is there really only objective justification for such

ambitious goals? Do the transmission mechanism, which would ensure achievement of the goals by adjusting the interest rate, and yet we know at least that he is not sufficiently developed.

And how can you gain the confidence of market participants and their expectations. Rightly argues that to reduce the growth of consumer prices is necessary to form inflation expectations stable low prices. It is indicated for the development of information interaction with the public, to the understanding of ongoing policy of the Central Bank.

However, no openness and understanding actions of the Central Bank can not replace the main thing - to achieve their goals. Without successful implementation to think about trust pointless. There is little help to the openness and transparency policy, if its performance would be impracticable, and it will be an even greater extent understood by all. In the most general form of the allegation that price stability is essential for improving the well-being, ie, to achieve the ultimate goal of public policy is correct. However, low inflation in a stagnant economy is hardly closer to the ultimate goals of economic development. Monetary policy under inflation targeting affects inflation through interest rates. However, when deployed Stagflation processes inevitably interest rate policy at odds with the task of ensuring the conditions for economic growth.

The Bank of Russia also points out that "to the extent that it does not interfere with achieving the inflation target", ie secondarily, will seek to smooth out fluctuations in economic activity and financial indicators relative to fundamentally sound levels". But this is actually a policy of "fine tuning" of Keynesian type when trying to respond to cyclical fluctuations in economic activity, avoiding "excessive cooling of the economy" or its "overheating". Accordingly, milder or more tight monetary policy. And there does not come with these provisions conflict stated interest rate policy?

Hardly enhance the effectiveness of monetary policy on the economy of the transition to a floating exchange rate regime. So far, this transition means only a gradual devaluation of the ruble. The positive impact of this on the real economy yet poorly viewed. Furthermore excessive devaluation will inevitably do more harm than good.

That is why the so-called "floating exchange rate" is adjacent to the approval of the Guidelines that in the event of a threat to the financial stability of the Bank of Russia will continue the policy of intervention in the foreign exchange market to stabilize the situation. Thus, we can expect, at best, the so-called "dirty float". In addition, in response to the assertion about the effectiveness of target inflation list is endless, well-known shortcomings of the regime, especially for countries with commodity-dependent economies. No coincidence that the Bank of Russia is looking for a "non-standard" tools to provide liquidity to banks (increase in length of the loan, the provision of foreign currency loans, holding currency auctions repo) establishment of a mechanism of financing investment projects through three-year loans at a rate of 1% below the key rate.

CONCLUSION

As a result, it appears that in difficult economic conditions, the transition to inflyatsion nomutargetirovaniyu can hardly be realized and set targets will not be achieved. And that means that will be dealt an additional blow to the financing of investment activity, the development of the real economy.

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THE BRAZILIAN CRISIS AND STRATEGIC MANAGEMENT OF THE ENTERPRISES

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ABSTRACT

The aim of this article is to present an exploratory study on the Brazilian crisis and the strategic management for companies. Considering the current social and economic crisis that the Brazilian society will be going through for the next number of years, companies need to prepare themselves under the aspect of human resources and marketing management. The universe of field research was a group of executives from mid-sized companies of different segments in the city of São Paulo. The field research was conducted with semi-structured individual interviews: 10 marketing executives and 10 human resource executives. We directed the research in the marketing area to the strategic aspects of organization and how they direct the planning in that area from the diagnostic phase up to the futuristic vision of the organization, considering market indicators. Leaders need to keep in mind that the crises provide an opportunity for the progress and growth of the organizations.

Keywords: Brazilian crisis, strategic management, marketing organizations, human resources

INTRODUCTION

In the history of Brazilian companies, we observed that various aspects have contributed and are contributing to transformations and changes. Cultural issues, social, economic and technological changes have become a major variable in organizational context.

The study focuses on social and cultural points, in view of the fact that as of 2003 Brazil has gone through the greatest sociological phenomenon of the country, which was the rise of class D to class C and consequently interfering in behavioral patterns and marketing of the companies. According to a preliminary study by the authors of this article (2012), there was a natural increase in demand, however problems related to public management brought about a series of economic problems, taking the Brazilian economy into an economic recession.

With the current crisis, both economic and social, which Brazilian society will pass through for the next years, companies need to prepare under the aspect of human resources and marketing management, the delimitation chosen for this study, instead of a simple cost and spending reduction.

Taking into account, inflation, the rise of the dollar and high unemployment, there has been an increase in the need for companies to seek: new products and services, costs and expenses reductions as well as improve results and performance through more balanced and conscientious management. The process for the implementation of any strategies involves a need for applying management tools that make it possible to monitor how they are developing actions, and how they are using the resources. This article seeks to discuss, in general way, how Brazilian companies may compensate the potential threats through more appropriate management in the areas of marketing and human resources.

THEORETICAL FOUNDATION

Corporate Management

So that the strategic planning process can consolidate, a company needs to execute their business management and respective strategies, which can be performed through organizational performance indicators that allow for a critical analysis of their performance. A part of these indicators comes from the Management Information System (MIS), which demonstrates the degree of efficiency, efficacy, effectiveness and competitiveness of the company's strategic planning.

According to Oliveira (2002), "the Managerial Information System is represented by a set of subsystems, viewed in an integrated manner and capable of generating information necessary for the decision-making process" (p. 59). Formerly, the reports were merely accounting data and information, whose major aim was to compare revenues with costs and expenses. Nowadays, due to the increased complexity of the operations of a company, these indicators involve other information, such as the market, results, skills and the environment, for example. However, strategies implementation is the main input in the management of organizational performance. With this implantation, it will require a joining of efforts and resources to be able to generate results. In this sense, part of the management process takes into consideration the overall planning of the organization, as well as its fragmentation in each area the company.

We will discuss planning and management from the point of view of human resources and marketing areas, and that will provide inputs for the consolidation of the integrated management of the company, which will provide greater reflection for the delimitation of the chosen topic.

Human Resource Management

Companies are made up of people who are responsible for the efficiency of how activities will be processed as well as the effectiveness of how they are organized and managed. Human resource management involves how the company will hire, retain, motivate, capacitate and lay off their internal collaborators. It is related, as well, in how to maintain relationships with external collaborators, such as service providers who are directly related to the area, like training agencies, courses and other similar ones.

For Marras (2008), "a modern enterprise is concerned primarily with five important aspects as regards to its human resources: recruiting, maintenance, development, satisfaction and image" (p. 167). Human resource planning involves the entire management process that enables one to identify and meet organizational needs as well as develop plans and policies that contribute to the fulfillment of the company's strategic goals and objectives. As part of the diagnosis, when starting from the current situation, the human resource area will be able to identify the present and future needs of the human capital, as well as arrange their training so that they have the appropriate and desired profile. This area is also responsible for human resources management, in order to maintain an internal balance, creation, development and maintenance of the organizational culture and climate, as well as human control and contracting costs.

Within the organizational strategic planning, one of the pillars that sustains the strategies refers to human and managerial skills that enable them to achieve and add value to the results, which then make the companies more competitive. The identification of which competencies are necessary for companies in the economic sector and the company are the starting points to be discussed, in order to provide for the internal public with the appropriate forms of capacitation – training, courses, coaching and mentoring, so that it makes them more prepared and motivated to achieve results. The human resources area can generate a series of data and information that must be transformed into indicators. These may be related to the expenditure level, number of layoffs and new contracts, level of organizational climate, among others. One of the greatest challenges in the area of human resource management is the composition of internal stakeholders and skills development that will make the company more competitive and with the necessary competitive advantage. Organizations, whether public or private, have positions and relationships that are duly written out and standardized, forming a set of information that we call "formal aspects" of the companies. Aspects represented by non-officially established procedures and interconnections are referred to as "informal". We can say that are intangible aspects, as they are

not palpable, however visible through beliefs, values, friendly relationships, ways of life and the behavior of the people in the market and differentiated ways of meeting the consumers' desires. This scenario involves a focused and results-oriented company; these, of course, depend on how the company understands the market in which it operates.

Individuals who work in the companies carry a life history characterized by these beliefs and values, and one that reflects on their performance, team interaction, conflicts and the possible changes that may occur. The decision-making process will depend on human resources as well as the knowledge of the teams and how they interfere in the corporate culture. We can give, as an example, the culture at IBM, which is grounded on three principles created by its founder, Thomas Watson. They are present throughout the organization on boards strategically arranged in every room, in many internal publications and they are always referred to as support for the majority of the decisions and organizational activities, since they constitute the very identity of the company.

The first belief, "**respect for the individual**", officially guides the organization's human resources policy. The company has internal communication mechanisms that are based on the same. One of these mechanisms, called the "open door policy", allows the employees who feel wronged by their immediate superiors to take their issues directly to a higher management, which will consider them again in an impartial manner. Employees call this internal policy "climb". The "speak frankly" or *Speak Up* program allows the employees, who have a complaint or a problem to solve, to report it anonymously, thus having their questions answered by the administrative authorities in charge. The company has therefore an "internal justice" for conflict resolutions, which absorbs them in order to maintain a cohesive system. The company's second belief, "**provide the best customer service**", and the third, the "**pursuit of excellence**", or in other words, the search for a superior way of performing a task, justifies the strategic management quality to be carried out through the implementation of Market Driven Quality, their quality policy (www.strategis.com.br/casos/casos_corpo_ibm.htm). With this vision, in crises periods, the developer will be able to face all difficulties, once the commitment has been visible since his/her admission. The cooperation procedure is another aspect observed during a period of crisis, because it "allows for adding efforts to the benefit of a common goal" (Moura, 1995, p. 133). Employees are observed individually and in groups and, therefore they can know and recognize the ability of each one to aggregate values to the organization.

Marketing Management

Marketing management involves the entire process that leads the company to creating and selling a product. This process is not limited only to its internal environment, but also to service suppliers that, through their expertise, make the actions more consistent and confluent with the company's objectives. These suppliers involve market research institutes, advertising agencies, public relations firms, consulting firms and consultants, distributors like wholesale and retail, sales promoting, and the company should perform the management of their stakeholders.

From the internal environment point of view, the company must essentially carry out the administration of the resources that will compose their product as well as the management of their marketing mix. In conjunction with the production area, the enterprise should coordinate resources and efforts to ensure that the product is available for the consumer market. These features involve the financial part, raw material and integrated control so that operational processes are in accordance with the marketing and sales schedule. Ideally, sales and distribution processes occur in an integrated manner, often avoiding a sales situation to the final consumer and a delivery delay at the company's expense. Hitt, Ireland, and Hoskisson (2011, p. 68) consolidated the idea that consumers should understand the quality of the attributes of the products and services they are acquiring from the transforming capacity of the input and resources on the part of the company.

Marketing management involves monitoring the 4 P's, so the policies, strategies and actions occur in order to bring about the best profitability for the company. This monitoring involves monitoring the consumer market, competition, prices, the level of communication and control of commercial inserts and ads, as well as sales volume and business results. The marketing area can provide market indicators, such as size and marketing share of the company and competitors, sales volumes, marketing expenses, among other information that allows for a more accurate assessment of the company and its market. One of the biggest marketing challenges is to identify new market needs and differentiated ways of meeting the desires of the consumers.

Management within the Perspective of the Overall Strategic Planning of a Company

According to Clements (2014), a project must have a series of contents that allows it to contribute to the delivery of the final product, in this case, the implementation of a strategy. The process of a formal start could be an opening term, minutes from a meeting with the top executives of the company, or a document where the actions to be carried out, within a schedule of activities, are described. In these activities, the actions and responsibilities of each area of the company are expanded (Figure 1).

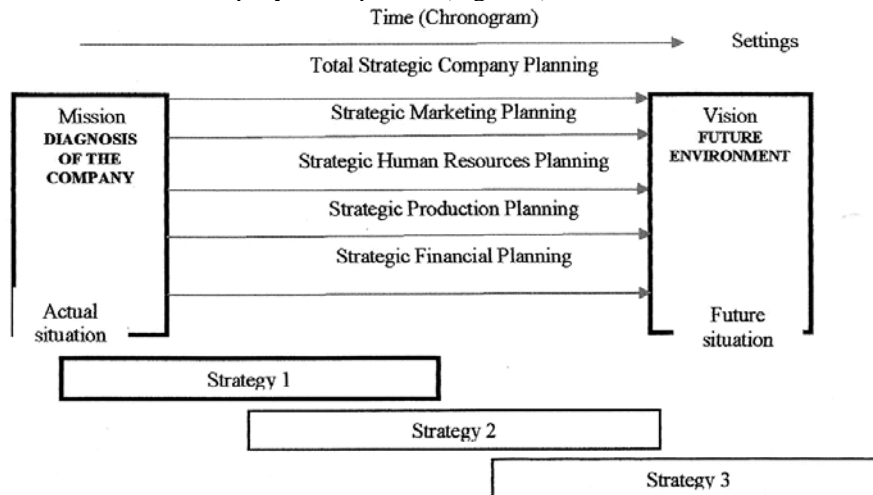


Figure 1. Integrated management

Source: the authors.

Each unit of the company contributes with a planning fragment as well as resource management. This integration must be properly aligned with the company's strategic goals and objectives. For an integrated management, it will require a discussion on the organizational performance indicators.

The Implementation Phases of Organizational Performance Management

Organizational Performance Management involves a structured process decoded by stages. The first phase refers to the incorporation of the culture of the performance evaluation, which aims at the organization accepting and using it as a means for enterprise development. Afterwards, the identification of which performance indicators satisfy the determined needs in the company's strategic planning, as well as how to obtain them from the different areas of the company.

The second phase consists of the validation of data and information that are accurate and reliable. Although much of the data is generated in-house, the collecting and processing must be systematically checked and validated in order to present data that really represents the reality of the internal and external environment. A restaurant must present data about the quantity of raw materials, their use and losses, how and when they were processed, how many dishes on the menu were consumed, among others. In this sector, they usually perform an evaluation between costs and revenues, but not necessarily a more detailed review, which can result in costs reduction through process merging. A restaurant usually has the "dishes of the day", in order to facilitate the acquisition of raw material; what is presupposed is how this dish of the day is produced and how to obtain improvements in its manufacturing process. In other words, the indicator should have the objective of continuous quality improvement of the company.

The third phase consists of how data and information will be generated and distributed in the reports that will be generated. The fourth stage is the identification of the means and formats in which indicators will be presented, including the technology involved, for the internal and external audiences.

Corporate Governance in Today's Society

Companies that seek to ensure their competitive position and the sustainability of their business have a need for corporate governance in order to maintain control of their assets and resources while maintaining a positive image and contributory together with their different audiences of interest. Management responsibility has always been the responsibility of the owners, but the influence of enterprises in the economic and social environment has pressed companies and institutions to adopt new attitudes towards the sustainability of their businesses.

One of the ways found was corporate governance in order to establish standards and rules that serve as a representative means for society. It can be defined as a set of processes, policies, regulations, institutions and mechanisms that regulate how a company will be controlled and how to undertake the relationships with its stakeholders, especially top management, shareholders, employees, customers, regulatory institutions and all those who maintain relationships with the company.

Child and Rodrigues (2002) reinforce that the corporative administration, as a means of management and monitoring, try to guarantee the effectiveness of the company's actions, as well as the mechanisms for the preservation of the rights, duties and minimizations of risks. With this, the company can have sustained financial and economic development. It has economic efficiency, transparency, social responsibility and ethics as an objective for those involved, so that there is an adherence of the stakeholders and the removal of possible conflicts of interest. Economic efficiency is obtained from the premise of ensuring a return on one's investment, because it attempts to motivate and ensure management that is more efficient. A very important point relates to information transparency that serves as the foundation for building the credibility of the company in the market where it operates. This transparency is sustained by ethical principles that guide the company's actions and those of its respective stakeholders, thus generating a climate of trust, either through the speed of how communication is processed, or because of the credibility of the facts. In Brazil, we can highlight the Brazilian Institute of Corporate Governance (IBGC) and the Brazilian Securities Commission (CVM), which both feature behavior codes.

Control and Strategic Planning Evaluation

For the effective control and evaluation of strategic planning, a strategic implementation project presents the estimated time, with starting and finishing dates for the completion of each phase or activity and its cost, properly budgeted by the involved areas. Sometimes, forecast errors characterize decreased profitability margins, or even losses that cannot always be retrieved within the same project, but they can be compensated with the results of other projects that the company is developing. Therefore, the implementation of a strategy starts when it is in a defined period and ends in an agreed period. Not always. Strategies are presented in order to anticipate the changing internal and external environment, but the scenarios will hardly ever be the same as those recommended at the time when the strategic plan was elaborated, because the market is quite dynamic. In this way, deadlines and results should be properly monitored, but with enough flexibility for the adaptations required for achieving the desired results. However, this flexibility should be foreseen even in their own strategic planning for the company.

Hitt, Ireland and Hoskisson (2011) show that strategic controls are based on criteria that is considered to be widely subjective, confronting strategies (which are intangible assets) that are used in accordance with the external environmental conditions and the proposition of competitive advantages previously projected in the company's strategic planning. There lies the market trend in the use of financial controls to assess whether the strategy is being introduced in the market consistently, which does not characterize a mistake, but an analysis detour that can bring consequences and impact on the company's results, since there are ways to bring financial return and not necessarily an outcome of the business. Companies use this form of control, as it relates to objective criteria (is numerical) and liable to historical comparison as well as with competitors. Part of the information must originate from the company's accounting system, which should compulsorily register the accounting facts that are consolidated in other reports.

One of the most common flaws in implementing planning and strategies refers to the unnecessary controls that encumbrance the control and evaluation process, upsetting the balance of the cost-benefit

relationship. Some companies have a heavily bureaucratic concern that penalizes part of the employee's work time in the creation of documents (reports) that only function as an activity log, but which are not always fully incorporated in the company's statistics. An example of this is the recurring obligation imposed by some companies for sellers to fill out visitation reports, contents of the visits, peculiarities of each encounter, fuel spent, among other data that can be registered or obtained otherwise. So, the seller who should be selling is obliged to make part of his working time available for unnecessary activities.

METHODOLOGY

We collected the data through bibliographical research obtained in books, specialized magazines of the areas and websites. The universe we chose for the field research was a group of executives from midsize companies, of different segments and located in the city of São Paulo, in the areas of marketing and human resources. Because it is an exploratory study, we advocated for a group focus in the sense of obtaining initial impressions that could give support to the research problem. The technique we used was a field research conducted with individual and semi-structured interviews, which sought information on marketing strategies, human resources and management processes. We also emphasized moments of crisis and questioned the executives on their involvement in dealing with the problems that arose. For the marketing area, we interviewed ten professionals in São Paulo. Our initial concern was not to identify the economic sector, but rather to get a general impression as to what these companies wanted to accomplish in this year of 2015. In the area of human resources, using the same technique.

We chose to carry out interviews because they are, "a technique that allows for a relationship between the interviewee and the interviewer. They are a guided dialogue that, through questioning, seek to achieve information and data for the research" (Martins, 2002, p. 52). The sample was defined by the criterion of accessibility, because "far from any statistical procedure, it selects elements because of the ease to access them" (Vergara, 2010, p. 47). The selection of managers of areas related to the subject of research: human resource management and marketing management. The research in the marketing area was directed at the strategic aspects of organization and how planning is directed to this area, from the diagnostic phase up to the futuristic vision of the organization, considering market indicators. In the human resource area, we questioned the organization's behavior in relation to the individual, where the interviewee was asked about the methods for hiring, training, impacts on crises and their participation in the drafting of the strategic planning of the organization.

DATA INTERPRETATION

The data were treated qualitatively, based on theoretical and methodological assumptions. One can see, by the interviews with marketing professionals, a gradual reduction of the offer, in order to maintain or even decrease marketing expenses. In this way, important issues related to product and service innovation, new technologies and new business solutions were a little on the fringe of this and of the next few years in the country, as a result of preventive actions, which are not necessarily correct from the point of view of the entrepreneurial side. Another vital point is that the company, concentrating their efforts in the short term, will be substantially lowering their profit margin, either by the commissioning of the sales team, sales promotions, which consist of discounts and similar policies.

In the interviews, all the participants recommended preventive actions related to decreasing investments in research and development of new products and services, in order to reduce marketing expenses and balance the cash flow. In this way, the central marketing strategy will be to focus on concentrating resources and efforts in the current portfolio of products and service of the company. In this case, there are two situations: one of them refers to the selective investment of resources and marketing inputs in order to optimize them and obtain better financial result (and not necessarily commercial). On the other hand, the decrease of investment in research and development results in the maintenance of existing products and services, so the company has no additional gains. Another aspect refers to the search for new market niches in order to broaden the customer base, including an attempt to increase market segmentation. These proposals are directly related, unfortunately, according to the testimony of the respondents, in using a more aggressive manner of personal selling and sales promotion, which are essentially short-term stimuli. For the human resource area, we observed that employees are still far from

participating in the organizations decisions in the face of crises. However, the initial training, when they are admitted, is based on strategic planning and they are shown the moments of the review of the action plan. Some companies offer in-class and on-line courses and focus on key trends of leadership, technologies and changing scenarios.

CONCLUSIONS

We live in a reality where there should be metrics that enable for consistent assessments and generate immediate actions. The implementation of strategies involves a series of responsibilities related to results as well as the resources to be used. Therefore, the use of management practices that work as a complement to the strategic planning of a company become necessary. Management practices will only be possible if the company uses the organizational performance indicators in a precise manner, in order to make the planning and management process more consistent. These indicators not only have the objective to measure and compare, but also to anticipate possible problems and difficulties in the execution and development of the strategies. However, the organizational success depends also on changes related to culture and behavior of the internal public and the reflection necessary so that those management models evolve according to the evolution of the organizations. Unfortunately, a part of those interviewed come from the premise of a reduction in marketing expenses, which constitutes itself in a strategic error, from the interpretation of the data on the economic recession. The central idea is to work proactively, together with the human resources area, in the sense of identifying innovating solutions. It is also important that organizations allow their employees to have participation in the corrective actions in face of threats as well as contributing to the perception of opportunities, because the crises are beneficial for the rethinking of the organization. Leaders need to keep in mind that crises provide an opportunity for progress and organizational change.

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IMPORTANCE OF INTEGRATED LOGISTICS SUPPORT AND MAINTENANCE MANAGEMENT IN SUPPORTING HIGH-TECHNOLOGY SYSTEMS DURING PERIODS OF EXTENDED LIFE CYCLES

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ABSTRACT

The constant change in the business environment requires the utilization of many and various methods to provide a competitive advantage for organizations in order to harness future opportunities in the market place. High technology complex systems are capital assets of an organization and are designed and developed to have long life cycles and are vulnerable to high levels of obsolescence, and require critical maintenance tasks. The research consisted of a literature review, case study analysis and finally a questionnaire. Advantages of implementing such a ILS system, in particular maintenance and obsolescence programs, include a reduction in the total life cycle cost and associated total cost of ownership, improving the firm's overall bottom line.

Keywords: Integrated logistics support, maintenance, obsolescence, high technology systems

INTRODUCTION

The constant change in the business environment requires the utilization of various methods to provide a competitive advantage for an organization in order to harness future opportunities in the market place. High technology complex systems are capital assets of an organization that deliver products and services to end-users and are designed and developed to have long life cycles (typically 40 years). According to Jane's (2000) technology has changed significantly compared to 30 years ago, the life cycle for commercially off the shelf (COTS) components obtained from suppliers is between two and three years, whereas the life cycle for defence contractors is required to be between seven and 15 years, while government and sustainable life cycles are between 25 to 40 years. A complex logistics system is required to support these complex systems in order to meet the operational objectives.

High technology complex systems consist of many different complicated sub-systems and assemblies which in turn need to be maintained and supported in order for the system to deliver functions for which it was designed. Many of these systems have thousands of components, making the support of a fleet of these systems extremely challenging. Systems with a high consequence of failure need to be supported and maintained during their intended operational life and in some cases an extended operational period. These systems suffer from component obsolescence and are upgraded to improve their technical performance and to extend their operational life. The most complex of the systems that require integrated logistics support (ILS) can be found in systems with a significant consequence of failure and systems currently in use and adapted from original design, and in particular those with extended life cycles. Systems used beyond their designed life cycles are vulnerable to diminishing manufacturing sources and material shortages (DMSMS) and high levels of obsolescence, require critical maintenance tasks. Adequate planning for upgrades, modifications, refurbishment, mothballing, cannibalisation, disposal, phase-out, and waste can reduce the risks associated with these aspects of ILS.

HISTORY OF LOGISTICS AND ILS

Logistics originated in the military. In the early wars (490 & 491 BC), the armies supplies were either shipped in or they lived of the land (*The New Encyclopaedia Britannica*, 1974). In the 17th century the army sizes increased and they kept moving in order to survive. By the 18th century warfare was about sieges and not battles (*Encyclopaedia Britannica*: 2004). Steam-driven machinery during the Industrial Revolution of the 19th century changed the nature of war (*The New Encyclopaedia Britannica*: 1974). During the latter part of the 19th century the telegraph, the steamship and the railroad had a serious effect on logistics, especially on transport and information. The 20th century saw more efficient methods of electronic communication, namely, the radio, television, telephone, radar, and the high-speed computer, as well as the invention of the powered vehicle. Logistic systems and techniques altered after World War II, where consequences of failure beyond design limits and dependency on logistics became more important. New weapons of destruction followed, including missile launching submarines and intercontinental ballistic missiles (*Encyclopaedia Britannica*: 2004).

Integrated logistics support (ILS) also originated in the military, and is being utilized in a wide range of industrial applications including radar systems, satellite earth stations, navigational aids, nuclear power plants, petrochemical plants, and rail. ILS entails integrating all logistics aspects (table 1) in order to support a high technology system or a business entity. Integrating the ILS elements entails understanding how each element is linked and affects other elements (United States {US} Defense Acquisition University, 2011). Jones (2006:xv) comments that ILS is an '*internationally accepted analysis methodology and management process*'. The UK MoD (2010:v) states that it is UK MoD policy that "...ILS shall be applied to all product procurement." UK MoD (2012) also quotes the UK MoD policy but uses the word acquisition instead of procurement. The discipline of integrated logistics support consists of various sub-elements. These elements are provided in Table 1 below.

Table 1: Integrated logistics support elements

• Maintenance support	• Supply support	• Technical data and documentation
• Support and test equipment	• Facilities	• Training and training devices
• Manpower and personnel	• Disposal	• System operational requirements
• Configuration management	• Obsolescence	• Computer resources
• Packaging, handling, storage and transportation		• Reliability, availability and maintainability
The traditional ILS elements are further expanded upon by US Defense Acquisition University (DAU) (2011) to include “Product Support Management” and “Sustaining Engineering”.*		

Source: Blanchard (2004), Jones (2006), Finkelstein & Guertin (1988), US DoD (1988), US Army (1999), UK MoD (2010), and Carpenter (1967). *US DAU (2011).

In the 1950s peer-reviewed journals began publishing defence logistics research (Yoho, Rietjens and Tatham, 2013). In research conducted by Yoho, Rietjens and Tatham (2013:82-83) they searched for terms "defense logistics", "defence logistics" and "military logistics" in the abstract, key words, text or title in Proquest Research Library-Business and ABI/Inform and obtained 276 peer-reviewed journal articles from the period 1952 to 2010. Many of those were from specialist military journals. With 23.6% being published in the Air Force Journal of Logistics.

ILS IN PRACTICE

During the entire life cycle of a system, the cost of support (unavailability of operational assets and financially) is more than the cost of acquisition (UK MoD, 2012). The complexity of the technology used in military systems requires specialized support, which only the original equipment manufacturer (OEM) can offer (Thompson, in Knickerbocker, 2007). Industrial contractors provide logistics support on military systems (MarketResearch.com, 2006). Murthy, Atrons and Eccleston (2002) argue that a significant amount of the total cost of operating equipment in various industry sectors is the actual maintenance of the equipment. According to *Jane's Defence Weekly* (2007) contractors must possess the appropriate skills and resources to support a system; should these not be in place, the lives of servicemen and –men are at risk.

ILS is used on many procurement programmes in industrial and military organisations. In South Africa, ILS is utilized in the operational phase of support contracts for military and industrial systems. Such systems include military radar (Engelbrecht, 2011; Reutech, 2012; and Lambert, 2008), military and industrial instrument landing systems, satellite earth stations, and in the design of power generation plants (Lambert, 2008). Internationally ILS is used by the Australian Defence Force (DMO, 2008), the T-129 Attack Helicopter (*Turkish Defence News*, 2007), Patria (2013) provides life cycle support services, Boeing is sharing its life cycle support system, with other users (Kemp, 2006), the European Aeronautics Defence and Space Company (EDA, 2007), the F-35 Joint Strike Fighter Program (Floyd and Reyes, 2014), and logistic support cost savings was expected with the H-1 Bell helicopter (Gething, 2001). ILS has been utilized to influence the design of systems in order for the system to be supportable and maintainable during its operational phase. The life cycles of systems are being extended beyond their original designed life (Blanchard and Trovato, 2006, in Jones, 2006). In the design of power generation plants, ILS is used to influence the design of mechanical structures, systems, and components (SSC's) in order that these SSC's are maintainable and can be supported for at least 40 years or an extended life period.

Obsolescence in systems (as in all complex systems) is an issue since suppliers do not necessarily keep a stock of components. Inadequate training of maintenance personnel, or a lack of training [or obsolescence thereof], may cause serious problems. A case in point, is the crash of the Russian bomber [2004] which can be attributed to 'poor training': Russia's defence force needs improvement in its training hierarchy, especially as it supports a 'system designed for the Cold War' (McDermott, 2004).

RESEARCH APPROACH

Three phases of research was conducted. The first phase consisted of literature deconstruction. Phase two dealt with the deconstruction of six case studies regarding ILS of high-technology systems. The final phase entailed quantitative research by means of a questionnaire and statistical analysis.

Phase 1: Literature deconstruction

In this section, two aspects of ILS are explained, namely maintenance and obsolescence. Maintenance is a task performed to restore a failed item to a specific operational condition. The maintenance philosophy is used to generate a maintenance concept, which in turn is used to generate a maintenance plan. Maintenance planning occurs during the acquisition process with the development of the maintenance concept (US Department of the Army, 1999). A maintenance philosophy represents the organisation's outlook regarding what maintenance should achieve, including where the maintenance will be achieved. The maintenance philosophy for a high technology complex system will contain a policy as to whether a failed item will be repaired or discarded, and will determine if preventive or corrective maintenance for specific maintainable items will occur.

The maintenance concept, maintenance planning and the logistics support analysis (LSA) results represent inputs to the maintenance plan and, according to Blanchard and Fabrycky (1990:466), 'A detailed plan for maintenance is developed from the maintenance concept, the ongoing maintenance planning effort accomplished throughout system design, and the results from the logistics support analysis.' A maintenance concept embraces maintenance tasks to be performed at the different maintenance levels (or lines), repair policies for the levels of maintenance, maintenance task scheduling, organisational responsibilities, support elements, maintenance and support environments, requirements for effectiveness, and resource availability (Jones, 1995; Blanchard, 1992; Langford, 1995; and Biedenbender, Vryn and Eisaman, 1993). Finkelstein and Guertin (1988) mention that this maintenance concept requires a comprehensive system analysis. The outputs of the maintenance concept become inputs towards devising planned maintenance. This includes supporting a specific system or item of equipment by maintaining it, including making room for the necessary maintenance tasks. Maintenance planning further includes creating maintenance support concepts and defining maintenance requirements for the system over its life cycle at all levels of maintenance (Jones, 1995; Biedenbender; et al, 1993; US Army Regulation 700-127, 2005; US DoD, 1988; UK MoD, 2004).

Maintenance actions can either be preventive (scheduled servicing or inspections, i.e. daily, weekly, monthly, etc.), corrective (unplanned or unscheduled maintenance) or predictive (in terms of monitoring

condition). A failure modes, effects and criticality analysis (FMECA) determines all likely failures (or possible failure modes) of a system or item of equipment, the effects and the criticality of these failures (Jones, 1995; US DoD, 1980; and Blanchard, 2004). The maintenance tasks (e.g. to calibrate, install, lubricate, etc.) are derived from the FMECA (US DoD, 1991 and Jones, 1995). A maintenance task analysis determines which support elements are necessary to perform a certain maintenance task. A maintenance task involves what is to be done in terms of primary and secondary maintenance tasks, and who undertakes maintenance at which level. A maintenance task analysis identifies the necessary resources (i.e. tools, manpower, spare parts, test equipment, time, facilities, and training). Each maintenance task is broken down into various sub tasks and the resources are then identified in order to perform the specific task (Jones, 2006; Blanchard, 2004). In an incident in 2007 in South Africa when a piece of ordnance malfunctioned, it was found that a failed pin had caused the malfunction (Semono, 2008). Furthermore a similar failure had occurred in another country but had not been communicated to the end-user organisation in South Africa; in addition the manufacturer had not provided pin maintenance information or information regarding corrective action in the event of a pin failure (Semono, 2008).

Obsolescence affects many systems with long life cycles, and though traditionally a defence industry concern, now embraces other industries including nuclear, medical, power, telecommunications, railways, and petrochemical firms (UK MoD, 2004). Obsolescence can also be regarded as Diminishing Manufacturing Sources and Material Shortages (DMSMS), which similarly concerns: *'... the loss or impending loss of manufacturers or suppliers of critical items and raw materials due to discontinuance of production'* (Tomczykowski, Fritz, and Scalia, 2000:1-1). Legacy systems and contemporary high technology complex systems are feeling the effects of obsolescence (DMEA, 2001). In order to reduce these consequences, DMSMS risk management strategies have been implemented by users of legacy programs (DMEA, 2001). Typically, if a component becomes obsolete, so does the next-higher assembly or application (Boyle, 2005).

Planning for obsolescence of equipment is important, as obsolescence could cause a system to become non-operational due to a lack of components and result in a redesign (modification or part redesign) to ensure that the new component functions in the system. Obsolescence occurs due to technological advances where components are no longer manufactured, owing to being superseded by a different product line, if the previous one was no longer cost effective to manufacture, or if suppliers alter their line of business to focus on a different product. Obsolescence and DMSMS with respect to high technology complex systems can be regarded as the point in the system's life cycle when repair and spare parts are short in supply or are no longer available. Not only may the primary system, or components within the primary system, become obsolete, but obsolescence can also affect the support and test equipment, organisation procedures, and the knowledge and skills of the personnel. High technology systems with long life cycles (and sometimes extended life cycles) can be affected if the components have a shorter life cycle which results in more system upgrades than in the past, and thereby increases overall life cycle cost and therefore total cost of ownership.

Phase 2: Case study deconstruction

Six high technology systems were analysed with respect to their ILS operations. These systems have a long life cycle and all have a high consequence of failure. All, but one of the systems are currently in its operational phase of its life cycle. Two of these systems are older than 30 years and to improve system performance have been upgraded in certain assemblies. Three of the systems have been in operation for more than 10 years. The sixth system was in the design phase before being shelved. According to Yin (2009:46), there are different types of case study designs, ranging from a *'single case design'* and a *'single unit of analysis'* to *'multiple case designs'* and *'multiple units of analysis'*. A single unit of analysis and a multiple case design have been used for the study. The unit of analysis is at a system level as this is where all the components of ILS has been analysed. The use of multiple case studies justifies the validity and reliability of the study. Multiple cases regard the evidence as more credible, and the study can be considered as more resilient (Herriott and Firestone, 1983, in Yin, 2009:53).

When considering maintenance of the respective case studies, it becomes clear that all the systems have a logistics support or maintenance concept in place, which specifies the maintenance responsibilities at the different maintenance levels. One distinguishing factor is that the systems have different maintenance levels. One system has two levels of maintenance (operational and depot), three systems have three levels (operational,

intermediate and depot), one system has four lines, and one system has three levels divided into five tiers. Where tier one is equivalent to depot level, tier two is equivalent to intermediate and depot level, and tier three, four and five is equivalent to operational level. The important aspect is that despite the different maintenance levels, the management of the system is specified and all parties involved are aware of their specific maintenance responsibilities regarding preventive and corrective maintenance. All the systems currently in the operational phase of their life cycle have a maintenance plan implemented. A support contract exists between the end-user and a contractor, where the end-user typically performs operational level (O-level) maintenance (or black box exchange), and the contractor performs depot level (D-level) repair.

There are many differences between the systems regarding obsolescence. Two systems which has been in operation for more than 30 years is currently suffering from component obsolescence and is no longer assisted by the original manufacturer for many of the line replaceable units (LRUs) or components, given the manufacturer's support for new systems in the market. Modifications on some sub-assemblies on this system have taken place in order to match newer components. These two systems have also recently been upgraded to incorporate new technologies to improve its system performance. In addition, many of the suppliers of components simply no longer manufacture their previous product lines. These suppliers have improved components that are procured and the LRUs are modified so that improved components can be fitted to them. Subsequently, the system users are managing obsolescence more effectively. Obsolescence, other than component obsolescence, is also a concern on these two systems, where skills are limited, because of personnel who have either retired or left the organisation. Their knowledge has not necessarily been transferred to the junior personnel, hence the loss of critical skills. This fact negatively affects the support of this system.

Phase 3 : Quantitative research

Further key areas were identified from the deconstruction of the literature review and the case study analysis, which required more focused research. A questionnaire containing specific questions was targeted at three organisational levels (or job levels), namely, engineering, maintenance, and management personnel. A pilot study questionnaire was distributed to a sample of relevant individuals to gain insight into the specific questions asked and also to establish whether the specific format of the questions was understood. From these results, an analysis was conducted and a final questionnaire compiled and distributed to 566 respondents at organisations who are involved in ILS. These organizations included the end-user maintenance/support organization as well as engineering and support/maintenance contractors. The final questionnaire consisted of two separate questionnaires. One questionnaire was paper-based and was submitted to military organisations, while the other questionnaire was web-based and aimed at industrial organisations. The military questionnaire needed security clearance as sensitive information was required in answers to some of the questions. The industrial questionnaire was similar to the military questionnaire with some additional questions. The response rate for the questionnaire was 33%. The military based questionnaire provided a higher response rate than the questionnaire sent to industrial organizations.

A contingency table that compares two or more populations was used to analyse the responses. A contingency table is often referred to as a cross-tabulation table or cross-classification table, and a contingency table is used to list the *'frequency of each combination of the values of the two variables'* (Keller and Warrack, 2003:63). A contingency table is further used to determine the dependence of one variable on the other variables (Howell, 1995:363). The Chi-Square test, which is a test statistic, was used for the contingency table. "The chi-squared test of a contingency table is used to determine whether there is enough evidence to infer that two nominal variables are related and to infer that differences exist among two or more populations of nominal variables." (Keller and Warrack, 2003:538). The Chi-square statistic has been tested at the five percent significance level. If the probability of the P value was lower than five percent, the null hypothesis was rejected, and the two variables were dependent. Cramer's V was used to determine the dependence of two variables. Cramer's V is *'a statistic measuring the strength of association or dependency between two (nominal) categorical variables in a contingency table'* (PlanetMath, 2008). Table 2 provides the analysis of the data collected from the questionnaires.

Table 2: Results of concern areas versus job orientation, and knowledge and expertise

ASPECT	JOB ORIENTATION		KNOWLEDGE AND EXPERIENCE	
	CHI-SQUARE	CRAMER'S V	CHI-SQUARE	CRAMER'S V
Cost to support	0.0123	0.1891	0.7087	0.0766
Cost to repair	0.5021	0.0958	0.0401	0.1641
Failure probability	0.4227	0.1035	0.0308	0.1696
Lead-time to repair	0.0091	0.1931	0.0487	0.1607
Reliability of repaired system	0.2224	0.1252	0.0049	0.2003
Poor supervision	0.6560	0.1369	0.0209	0.2983
Maintenance induced failures	0.0298	0.2874	0.8874	0.0938
Operator-induced failures	0.0330	0.2840	0.5126	0.1588

Following from the questionnaire analysis it can be determined that the respondents perceive analysis, in the form of analysis of logistic support, level of repair, and FMECA-RCM (reliability centered maintenance) to be an important contributing factor in determining the appropriate maintenance philosophy, concept and plan. Cost to support as a determinant of obsolescence is an important factor in determining a systems' total cost of ownership and life cycle costs. Inadequate strategic maintenance guidelines, philosophy and objectives can adversely affect maintenance work since the actions, processes and procedures are not clearly defined, causing the maintainers to exchange LRU's until the fault is no longer apparent, instead of following set diagnostic guidelines.

In addition it is evident that an inadequately defined maintenance concept results in errors being committed by maintenance personnel due to poor training and procedures. Faulty maintenance work was regarded as the most important factor contributing to maintenance problems, and operator induced failures are considered to represent the major contributor to the types of failures and defects occurring on systems. Respondents have the opinion that operator induced errors are the result of high percentage of the downtime of high technology systems, and that maintenance induced and operator induced failures result in many hours of unnecessary downtime of high technology complex systems. In the respondents opinion they felt that poor supervision was not a major contributing factor towards maintenance personnel error, but they regarded poor training and procedures as the major contributing factor towards maintenance personnel error.

Lead-time to repair is extremely important for high technology systems that have a high consequence of failure and for plants that have a production schedule to follow and every minute of downtime is critical. It is important for maintenance planning purposes that failure rates are known, in order to ensure the correct amount of resources are available, for example during a routine shutdown to perform preventive maintenance. One method to reduce downtime of high technology complex system is to have inventory and resources on hand, by ordering spares, which have long lead times, and scheduling maintenance tasks, the applicable spares and resources are on site when needed. Furthermore components with a high rate of failure have an impact on the reliability and support of a system. The respondents, irrespective of their experience and knowledge base, regarded cost to repair, reliability of repaired system, and failure probability as a most important economical decision relating to supply support.

In order for maintenance to be performed effectively and efficiently in a high technology complex system environment, the following prescriptive grounded technological rules are proposed:

- 1) Utilise the defined business strategy;
- 2) Establish the organisation's maintenance philosophy;
- 3) Delineate the maintenance concept of the specific system and its linkage to other systems;
- 4) Develop maintenance planning, including analysis;
- 5) Document a maintenance plan for the specific system;
- 6) Implement the maintenance plan across all maintenance levels;
- 7) Conduct specific analysis of the system; and
- 8) Ascertain the risks associated with the maintenance of the system and manage these risks.

CONCLUSION

An organisation can gain a competitive advantage and harness future business opportunities in the market place by implementing an ILS system (ILSS) by managing the skills shortage and the obsolescence and DMSMS constraints, which in turn reduce the risk associated with an inadequately implemented ILSS. The reduction in risk can ensure that a system reaches its intended life span and possible extended life span. Skills shortage is another serious concern as this affects the support of a high technology complex system, that is, skills shortage may cause operator- and maintenance-induced errors. For systems suffering from obsolescence, it is critical that a management action list on obsolescence is developed and reviewed regularly, that is, regular technology scanning should be conducted as part of a risk review. It is vital to manage the obsolescence constraint in order to improve system performance.

Advantages of implementing such a ILSS, in particular maintenance and obsolescence programs, include a reduction in the total life cycle cost and associated total cost of ownership, improving the firm's overall bottom line. The market share of the firm will increase as suppliers and customers appreciate the added value service. The risk of obsolescence and the effects of long lead times will be reduced due to effective and efficient inventory management. Skilled staff will be attracted and retained by the firm, improving the necessary knowledge and skill sets within the firm. Refurbishment, upgrade, modification, cannibalization, and mothball programmes will be managed successfully. The system availability and reliability will be improved significantly (Lambert, 2008).

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THE ASIAN INFRASTRUCTURE INVESTMENT BANK: CHALLENGE TO AMERICAN INTERESTS IN ASIA

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ABSTRACT

The Asian Infrastructure Investment Bank [AIIB], a new creation sponsored principally by the People's Republic of China, poses both opportunities and challenges particularly for the nations of Asia and the Pacific, but also to others, including major international lenders and development specialists as the World Bank Group and the International Monetary Fund [IMF], and within the region itself, the Asian Development Bank [ADB]. The new AIIB poses a direct challenge to these institutions, which are mainly financed and otherwise backed by major Western powers, and which to date, have been the major intergovernmental lenders in the Asia/Pacific region as well as elsewhere among developing nations. There appears to be little doubt but that the new institution represents a direct challenge, particularly to the ADB. The Obama administration had initially strenuously opposed the implement of the AIBB plan, but has since been forced, due to its overwhelming acceptance, to revise its policies, at least to some degree.

Keywords: Infrastructural development, AIIB, US policy, Chinese policy

INTRODUCTION

Clearly development of the South, as the developing nations are sometimes termed, has been a priority since the end of the Second World War and the realization that colonialism as a major economic endeavor in the world was rather speedily coming to an end. Thus, in the Bretton Woods agreements, the newly created lending institution was named the International Bank for Reconstruction and Development, the first part recognizing the destruction caused by the Second World War, and the second, without doubt, anticipating the newly emerging nations emerging particularly from Africa and the Asia/Pacific regions of the world. That institution, now known as the World Bank Group, consists not only of the Bank but other agencies which directly attempt to impact poverty, plus, of course, the International Monetary Fund [IMF], which has, over the years had a great impact on funding development. In addition to these world-wide organizations, there has also been the rise of regional development banks, from the Caribbean Development Bank [CARIBANK], headquartered in The Bahamas, to the ones of particular interest in this study, the Asian Development Bank and Asian Infrastructure Investment Bank.

However, the world's politics and its economics have changed drastically, the Cold War atmosphere of the first four decades or so after World War II has changed considerably, not only with the demise of the former Soviet Union and the struggle of the rise of post-Soviet Russia, but to a shift in economic and political power from the West to the East, particularly with regard to the rise of India and of the People's Republic of China [PRC]. The political shift might well be considered far more difficult and controversial than the economic changes. Not only has there been a massive endeavor to regain political heights by Russia, but there has also been an attempt by China to seek world leadership, and this is an endeavor which has been mightily opposed by the US, which has a clear policy of reaching out to regain any lost power and generally strengthen its political and economic reach in the Asia/Pacific region. This can be easily determined by an examination of American

military, political and economic strategies. In the last case, of this would include the Trans-Pacific Pact, from which the Obama Administration is specifically and obviously excluding the PRC.

THE SETTING

As noted above, China has been actively pursuing leadership in the Asian/Pacific region. From an economic standpoint, this means increasing its own trade with that region, but it also necessitates involvement in regional development projects. This poses a basic problem for the PRC. The major international world-wide organizations of finance, i.e., the World Bank Group and the IMF were created in a world where China held a very different economic position, and for that matter, a very different government, though that changed in 1948. Most international organizations of the period, whether it be the United Nations, where the West controlled four of the five permanent seats (the Chiang Kai-shek government was a US and Western ally), and also most of the control of both the World Bank and IMF. Although the UN permanent membership improved from a Chinese viewpoint with the recognition and seating of the PRC government, its voting power in the World Bank and IMF has remained far less than its Western competitors. For instance, in the World Bank, the PRC has 10,659.4 subscriptions, which is 5.10%, and has 107,247 votes, 4.85%. Meanwhile, the United States has 35,784.8 subscriptions, 17.13%, and 358,501 votes, 16.21%. U.S. close allies such as the United Kingdom [UK] has 8,659.1 subscriptions, 4.14% and 87,244 votes, 3.94%, France has 8,659.1 subscriptions, 4.14% and 87,244 votes, 3.94%, Germany 9,657.4 subscriptions, 4.62% and 97,227 votes, 4.39%, while in Asia, Japan has 16,544.4 subscriptions, 7.92% and 166,097 votes, 7.51% (World Bank, Subscriptions...).

In the IMF, quite frankly, the figures are not dissimilar. The PRC has 9,525.9 special drawing rights [SDRs], 4%, and 95,997 votes, 3.61%. Meanwhile, the US has 42,122.4 SDRs, 17.68% and 421,962 votes, 16.74%, the UK has 10,738.5 SDRs, 4.51%, and 106,123 votes, 4.29%; France has 10,738.5 SDRs, 4.51% and 108,123 votes, 4.29%, Germany has 14,565.5 SDRs, 8.12%, and 146,393 votes, 5.81%. Once again, China's Asian competitor, Japan, has 15,628.5 SDRs, 6.56%, and 157,023 votes, 6.23%. (IMF, IMF Members' Quotas.....). It is not difficult to understand that China feels badly out-numbered by the West in both organizations, and, perhaps, it believes this is unjustly so given China's new stature in the international economic arena. "Reforms to give China a little more say at the International Monetary Fund have been delayed for years, and even if they go through America will still retain far more power. China is, understandably, impatient for change. It is therefore taking matters into its own hands" ("Why China....., 2014).

Then, there is the matter of the Asian Development Bank [ADB]. Not atypical of such organizations, the ADB, founded in 1966, "has been driven by an inspiration and dedication to improving people's lives in Asia and the Pacific. By targeting our investments wisely, in partnership with our developing member countries and other stakeholders, we can alleviate poverty and help create a world in which everyone can share in the benefits of sustained and inclusive growth" (ADB, "Overview"). The goals are, indeed, laudable, but perhaps not sufficiently achieved to date, at least according to some, including the PRC. In 2014, ADB operations totaled \$22.93 billion, of which \$13.69 billion was financed directly by the ADB. It is interesting to note that the PRC is one of the top five recipients, receiving \$2.76 billion. However, all that aside, when it comes to voting, the PRC has subscribed capital of 6.473%, with 5.477% of the votes, while the US has 15.567% of the subscribed capital and 12.752% of the votes, the UK has 2.051% of subscribed capital and 1.940 of the votes, France has 2.335% of subscribed capital, and 2.169% of the votes, Germany has 4.345% of subscribed capital and 3.775% of the votes, and Japan, the only regional member of this group (beside the PRC) has 15.677% of subscribed capital, and 12.840% of the vote. As noted in *The Economist*, "Although China is the biggest economy in Asia, the ADB is dominated by Japan; Japan's voting share is more than twice China's and the bank's president has always been Japanese" ("Why China....., 2014).

One can easily determine the strong Western influence in each of the above organizations. This is of political concern to the PRC. It also Western economic directions, based upon principles of capitalism and free market economy, from which these intergovernmental financing organizations take guidance to a significant measure due the Western powers votes and influence.

A final organization of significant interest is the proposed Trans-Pacific Pact [TPP], and important trade treaty proposed by the Obama administration. At last year's GBATA Conference in Baku, this author delivered a paper on the development of the TPP, and in particular, the US role in its formation (Le Veness). The Trans-

Pacific Economic Partnership [TPEP] originated in 2005 with four initiating members, and the US expressed keen interest three years hence. What emerged was the Asian Pacific Economic Cooperation Agreement, formally initiated that same year with twelve members, of which one was the US. The membership reached twenty-one by 2014. Since then the formal treaty of the TPP has been being negotiated, and in the US, it awaits passage through the Senate, a process which has seen delays and witnessed considerable controversy. As noted last year,

From the standpoint of the United States, the Obama Administration has made it clear that it seeks increased presence and trade in the Asia-Pacific region, which will lead not merely to enhanced trade relations and perhaps improving balance of trade relationships, but will also serve to bring the various free trade areas into a more regularized scheme, and increasing [the] number of nations.....accept[ing] membership in the Trans-Pacific Pact” (Le Veness, citing CRS [2013], Summary, p 1 Brackets added).

A major concern, however, is that despite all the efforts in which the US has engaged to increase TPP membership, it has made it abundantly clear that the PRC is not welcome! In fact, this TPP agreement, when finalized, may well emerge as an endeavor to not merely enhance US trade in the Asia-Pacific region, but to also contain China’s efforts in that same area. This is a prospect most assuredly not welcomed by the PRC, and many surmise that the AIIB, at least in part, is retaliatory, an effort to enhance PRC status as a leader in trade as well as economic assistance in development in a region in which it would gain a significant degree of hegemony. President George W. Bush’s Secretary of State James Baker was cited as stating the US should never allow “a line to be drawn down the middle of the Pacific” (quoted in Barfield and Levy, 2009, p. 1) “with the implication that the U.S. would, indeed, remain on its side of that divide” (Le Veness, 2014 citing Barfield and Levy, 2009, p. 1). This is precisely the type of policy which the PRC would vigorously oppose by its policy of endeavoring to limit Western influence in the Asia-Pacific region while at the same instance, gaining momentum for its own economic plans and goals both with regard to itself and for the Asian-Pacific region at-large.

Toshiva Tsugami, former director of the Northeast Asia Division of the Ministry of Economy, Trade and Industry’s Trade Policy Bureau, currently heading an economics consulting firm, has stated that:

the bank and other efforts, will also serve as a shield for China against the Trans-Pacific Partnership (TPP), a free trade pact that Tokyo and Washington are leading efforts to conclude. Although Beijing is not necessarily opposed to the TPP, Chinese accession is not expected to come anytime soon, and Beijing wants to avoid losing friends in Asia by doing nothing. That is why Beijing is supporting progress on Asian-led free trade agreements such as the Japan-China-South Korea FTA and a Regional Comprehensive Economic Partnership (RCEP) for East Asia, while attempting to independently expand and deepen intraregional economic ties and build infrastructure connecting China with the Asian region through the provision of funds via the AIIB. The overarching theme of Beijing’s approach is “inter- connections” (Tsugami, 2015).

As a result, it becomes clear that the People’s Republic of China sees itself as being challenged, both politically and economically in its region of hegemony. There is little doubt but that the PRC government will continue to take action on various fronts within and without the region.

THE EMERGENCE OF THE A.I.I.B.

Given its perceived relative disadvantage with regard to other international institutions of development, as described above, in 2013, the People’s Republic of China started to discuss the creation of a new international lending institution, principally for Asia, in which it would play a major role. According to the *International Business Times*, “China has found itself unable to set the trade and economic agenda and, according to some commentators, feels frozen out of the big multilateral organizations such as the World Bank, IMF, and International Energy Agency (IEA) (Birmingham). Ben Steill, Director of International Economics at the Council on Foreign Relations noted, “China wants to be a lender, as well as a borrower at concessionary rates, as this gives them policy influence over those countries to which it directs funds” (in Birmingham). In essence, the AIIB “will lend money to build roads, mobile phone towers and other forms of infrastructure in poorer parts of Asia.” There is, reportedly, a significant need, despite the efforts of the Asian Development Bank, and other

institutions, and “China’s official answer is that Asia has a massive infrastructure funding gap. The ADB has pegged the hole at some \$8 trillion between 2010 and 2020. Existing institutions cannot hope to fill it: the ADB has a capital base (money both paid-in and pledged by member nations) of just over \$160 billion and the World Bank has \$223 billion.” In addition, the function of the AIIB will be more narrow, as its name implies, solely concentrating on infrastructural development, while the other international lending institutions have their funds spread out of a series of additional economic and social causes. (“Why China.....,” 2014). Zhjou Qiangwu of the Ministry of Finance has stated, “In the next 10 years, there will be annual financing needs of about US \$700 billion for infrastructure building in Asia. However, the fact is that, many multilaterals, such as the World Bank, and the Asian Development, each only has US \$10 billion for investment in Asia. That’s US \$20billion putting them together” (“Establishment....., 2015).

As to its operational side of the AIIB, it should be noted that “founding members can formulate management rules, set the framework and make decisions. Associate members will have the right to vote on the bank’s decisions” (Hassan, 2015). As Yun Sun, a Fellow at the Henry L. Stimson Center and The Brookings Institution as pointed out there will be an international staff and leadership, for “While the AIIB preparatory group consists mostly of Chinese officials at this stage, it is understood in China that the eventual leadership and staffing of AIIB will be multinational and diverse.” In addition, “China has vowed that AIIB will deliver funding more efficiently and effectively than the WB and the ADB, but the Chinese also realized that high-quality rules and regulations are required for a variety of practical reasons.” Indeed, such things as international bank ratings and endeavors to secure funds all depend upon quality of operations (Sun, 2015).

Xavier Denis of Societe Generale noted in describing the purposes and need for such a bank, that It is no coincidence that the set-up of the bank comes at the same time Beijing is rolling out its ‘one road one belt’ action plan. The revival of the Silk Road is part of the charm initiative aiming at winning greater consideration from neighboring countries as much as fostering trade relationships. Setting up a multilateral development bank is a broader initiative, driven by the growing role of Asia in the world economy, the loss of legitimacy of Washington-based institutions and the will to deepen economic and political relationships within the region (Denis, 2015).

Mr. Denis notes that there will need to be very significant transparency. He also suggests that the institution “offers a great opportunity to issue a new type of safe asset to institutional investors – assuming the bank follows the World Bank’s example in issuing long-dated bonds.” He concludes that “the new bank could be instrumental in favoring greater financial integration with in Asia” adding that “at the current juncture, there is no reason to believe that this new multilateral bank could not be a successful enterprise. This initiative should be well received as it could eventually bring substantial benefits to the region and to the world economy as well” (Denis).

David Dollar of The Brookings Institution noted, “In recent years, developing countries have turned away from using the multilateral banks to finance infrastructure projects because they have found the banks overly risk-averse and bureaucratic in the implementation of their safeguard policies. I think that one reason that there has been such a positive response to the AIIB among developing countries is a hope that the new bank can be more efficient than the existing ones” (Dollar, 2015).

Reuters reported that the new AIIB would “be lean, clean and green” as stated by Secretary General Jin Lique. The Secretary General added, “Lean is cost effective; clean, this bank will have zero-tolerance on corruption; green means it’s going to promote the economy,” and it would not be political motivated in its operations (“China-led....., 2015, quoting the Xinhua news agency). Finbar Bermingham notes that,

It’s a commonly held view that China will attempt to use the bank to extend its political influence. In Africa, it has often been criticized for building roads in exchange for access to commodities. According to analysts, the AIIB could be used as a tool to bolster Chinese allegiances as it attempts to usurp the US as the dominant power in the region.

Erica Downs of the Eurasia Group added, “There’s been talk of the AIIB being used to finance a lot of projects in Asia as part of the maritime Silk Road the leadership has been talking about.” She noted:

You could make a case for having Chinese companies build or finance projects through multilateral organisation. This would be viewed in China as a way to legitimize their economic expansion in the area. It remains to be seen to what extent it is a pattern of behavior of rewarding some countries for actions the Chinese like or withholding from others” (quoted in Bermingham).

Geoff Raby, in *The National Interest*, blogs that:

“.....the AIIB plays to all of China’s strengths. Over the past two decades, Chinese construction companies have demonstrated remarkable capacity to build infrastructure, be it power stations, expressways, ports or high-speed trains. To some extent, China’s infrastructure is becoming built out and Beijing is looking increasingly to exporting this capacity. On straight commercial grounds, China’s construction companies would be well positioned to grab the lion’s share of the bank’s funded business. But as China has founded the Bank and contributed the bulk of its capital, this is guaranteed (Raby, 2015).

The formal signing creating the Asian Infrastructural Investment Bank occurred on 24th October 2014. The initial capitalization was US\$50 billion “which will finance infrastructure projects within the region. China is set to put up half the capital required” (Bermingham). The bank was called “an open and inclusive institution” by Lou Jiwei, the PRC Finance Minister (Bermingham). It might be noted that it was reported in May 2015 that the AIIB Secretariat “proposed to raise the capital by 50 to 100 percent..... “ According to a finance sector researcher from China, that would “improve the bank’s credit rating and help it more smoothly kickstart providing loans” (Saito, 2015).

AIIB GAINS SUPPORT AND MOMENTUM

Since the historic signing in October 2014 in the PRC capital of Beijing, under the Secretary Generalship of Jin Liqun, the bank has been receiving numerous requests for membership. By the March 31, 2015 deadline for founding membership, the number of nations applying had reach fifty-seven. Those nations anticipating entrance to the treaty when ratified already are approaching sixty in number. Members come from every inhabited continent, with a surprising number from Europe. It was expected that allies of the PRC and those with strong trading or political ties would join, but despite the US’ apparent initial opposition to the entire scheme, increasing numbers of its close allies are seeking founding membership.

It is certainly not surprising that Russia is among those who will be founders. As noted in *The Moscow Times*, and although the process was apparently delayed through bureaucratic mishandling and a perceived lack of money to enable Russia to make up-front monetary contribution to the Bank, “given the colossal amount of money needed to upgrade Russia’s poor infrastructure and shrinking economy, the country was naturally positioned to seek membership...”. Whatever the causes of the delay, the nation decided to join the AIIB as stated by First Deputy Prime Minister Igor Shuvalov at the Boao Forum in mid-April 2015 (Gabuev, 2015). In the Middle East, seven nations joined, with Saudi Arabia as a founding member, and six others as associate members (Hassan, 2015). The President of the Islamic Development Bank, Ahmad Mohamed Ali, noted that his bank is already in consultation with AIIB officials concerning “the use of Islamic financing.” Maja Zuvela of Reuters, noted that this “move could spur the use of sukuk (Islamic bonds), which have gained prominence as funding tools for a range of countries in recent years, and among multilateral lenders to help fund some of Asia’s mounting infrastructural needs” (2015).

There has also been a surge of Western European nations joining the AIIB, including some of the US’ closest allies. These include the UK, France, Germany, Italy, *et al.*. Even South Korea has signed. Given the US political campaign, the actions of these nations certainly appears to reflect a change in their attitudes toward the US and its foreign policy concerns and goals.

When the UK announced its accession in March 2015, its actions were “met with a frosty reception in Washington,” which expressed its fears of a lack of Chinese transparency. However, UK Minister of Finance George Osborne stated firmly, “Joining the AIIB at the founding stage will create an unrivalled opportunity for the UK and Asia to invest and grow together.” A National Security Council spokesperson expressed US concern about standards with regard to such areas as environmental protection and social welfare as well as the

operation of the bank. He noted, “It is important to note that countries that become prospective members of the AIIB will be responsible for the stands adopted in the articles of agreement and their implementation,” concluding, “This is the UK’s sovereign decision. We hope and expect that the UK will use its voice to push for adoption of high standards” (“UK to join....., 2015).

Israel, one of the US’s closest allies, has applied. Tova Cohen, citing the Foreign Ministry, noted this would “open up opportunities to integrate Israeli companies into infrastructure projects it financed.” She continued: “Israeli companies are increasingly turning to Asia to capture a boom in demand for their technology, as the government urges them to diversify export markets in response to Europe’s rising anti-Semitism and potential trade sanctions” (2015).

The international lending organizations, the World Bank, the IMF, and even the ADB have indicated their support of the proposal of the AIIB. Christine Lagarde noted there is “massive room” for the new bank{ “Lagarde.....2015).

CRITICS OF THE AIIB

From a Western perspective, perhaps one of the most critical voices is that of William Pesek. Shortly after the initiation of the AIIB he wrote, “Thanks to China,” the leaders of the World Bank, IMF, and ADB, “may no longer have much meaningful work to do” (2014). Rather strong language for such a fledgling institution, but words that demonstrate deep concern for the future of the Asia-Pacific region and for the influence of the US and the West. He continues that the AIIB, (as well as other Chinese policies which include assistance for Venezuela and Argentina and very significant aid to Russia), “signals the death of the post-war Breton Woods world. It’s [*sic.*] also marks the beginning of the end for America’s linchpin role in the global economy and Japan’s influence in Asia (2014).

Certainly, the United States expressed initial skepticism, indeed, opposition, to the formation of the bank, and apparently encouraged its close allies not to join. Although this has been denied by US officials, to the extent that it is or was true, it has been a colossal failure. Lawrence H. Summer, former Secretary of the Treasury, put it extremely bluntly: “We’re contemplating a major institution in which the United States has no role, that the United States made substantial efforts to stop – and failed!” (AIIB: We Have Lost....., 2015). The former President of Harvard added that it appeared that at least by mid-April 2015, US officials were taking “a more cautious stance. “They say they’re not averse to working with the new bank as long as the projects it finances observe environmental and worker safeguards. Still, the AIIB is being seen by some as a sign of diminished US influence in the financial system.” (AIIB: We Have Lost....., 2015, speaking of what Summers stated). Summers argued further that part of the reason for the actions by the PRC were that Congress has refused to assent to reforms in the International Monetary Fund which would have granted the PRC a much more significant role (AIIB: We Have Lost....., 2015). Economics Professor Ken Rogoff (also of Harvard) was less pessimistic, noting that China, already spending significant funds in development projects, if it utilizes an international bank, will by necessity become more transparent. “Rogoff says that as a rising power, it’s natural for China to seek a bigger leadership role in the world. The AIIB could be a way to do so in a more constructive manner. He says the United States probably should have welcomed China’s more early on, its failure to block the new bank has only underscored China’s growing financial might” (AIIB: We have Lost....., 2015)

In addition, former Secretary of State Madeleine Albright was quoted as stating, “The United States has ‘screwed up’ on its way to deal with the China-proposed AIIB and ‘should not have done in this way’” (Durden, 2015). She added that the AIIB is, as was indicated above in this report, in part a result of the lack of Congressional support for reform in the IMF and other international institutions. She noted, **I think there has been [a] certain amount of frustration (from China and other countries) about that**” (Durden, 2015).

On the last day of March 2015, Secretary of the Treasury Jacob Lew said “that the United States is looking forward to cooperating with the Asian Infrastructure Investment Bank, as it welcomes and supports proposals that are helpful to infrastructure construction. In his talks with Chinese Premier Li Keqiang in Beijing on Monday, Lew said the cooperation can be carried out through liaising between the China-US Strategic and Economic Dialogue, the World Bank and the AIIB, and any other mechanisms accepted by the two countries” (“Jacob Lew....., 2015). He later proceeded to state “hat emerging and developing economies alike **are looking**

to other alternatives as a means of driving the global system forward, as the international community waits for Congress to approve these [IMF] reforms. **Leu made it clear that the U.S. stands ready to welcome the AIIB** as it complements existing international financial institutions and upholds high standards” (Durden, 2015). This may well be true, but is it a matter of far too little far too late?

Finally, in late April 2015, President Obama with the Prime Minister of Japan, Shinzo Abe, noted that reports that the US was in opposition to the AIIB were false, and in fact, if it maintains the high standards the US speaks about “then we’re all for it.” It was noted, however, “Mr. Obama’s after-the-fact elucidation of the U.S. position didn’t go so far as to suggest that America might actually join the AIIB, even if the bank does all the right things. He was prepared to concede only that America would be willing to collaborate “ (“Obama on the Beijing....., 2015).

Daniel W. Drezner of Tufts University and a Brookings Institution Fellow noted in March,

The Obama administration has been reduced to backbiting U.S. allies in the press – which, by the by, is a passive-aggressive habit that it really should stop. Economist leaders, and smart China analysts are all blasting the Obama administration on this issue. Indeed, most China-watchers advised the administration to join the AIIB six months ago on the logic and influencing it from within was much smarter move than the course of action they actually pursued (2015).

CONCLUSION

Pesek concludes in a rather chilling statement: “Chinese President Xi Jinping’s government doesn’t care about upgrading economies, the health of tax regimes or central bank reserves. It cares about loyalty. The quid pro quo: For our generous assistance we expect your full support on everything from Taiwan to territorial disputes to deadening the West’s pesky focus on human rights” (2014). To the extent that such a statement is really accurate, the future of the AIIB and American policy in the Asia-Pacific region, may be in serious question. However, even if the doom and gloom, so to speak, is not as great as Pesek indicates, there is most certainly reason for serious concern on the part of the United States with its current policies toward China and the entire Asia-Pacific region.

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THE ETHICS OF THE CORPORATE INCOME TAX

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ABSTRACT

The taxation of the profits of incorporated businesses is one of the main reasons that curtails the sustainable future growth in business. It stifles the process of capital accumulation and the entrepreneurial process of discovery. The result is that the tax is an immoral one: it is a populist tax that keeps people poor and let them believe they do not pay but others do pay the tax. For the businesses sector probably the best strategy to stop “paying” taxes is to play the ethical trump card as the main motivation to abolish the corporate income tax.

Keywords: Corporate income tax; entrepreneurship; ethics; Adam Smith; Jean-Baptiste Say

INTRODUCTION

In the newspapers we do read a lot about the supposed immorality of firms trying to evade paying the corporate income tax (Hannon, 2013; Barro, 2015). But what about the morality of firms having to pay taxes in the first place? May be trying to evade paying taxes is the lesser evil and the best thing to do---especially from an ethical point of view. In this paper we do assess the morality of the corporate income tax with the time-tested criteria of Adam Smith from the end of the 18th century and Jean-Baptiste Say of the beginning of the 19th century. In short, we look at taxing businesses from an ethical point of view. We do not directly look at its political, technical or practical problems.

We do start with stating two reasons why taxing profits curtails the sustainable growth of business. The first reason is well-known, the second is far less known. We continue with stating the criteria used by Smith and Say to measure the goodness of a tax. Next we apply the criteria to the corporate income tax. The paper ends with some advice for those who do want to stop taxing profits in order to secure the growth of business.

TWO EFFECTS OF THE CORPORATE INCOME TAX

There is a well-established relation between taxation and economic performance (Hauser, 1996). In the following we do look at the influence of taxation on capital accumulation and the market process.

Capital Accumulation

The most-frequently cited reason to abolish the corporate income tax is that it stifles the process of capital accumulation and hence economic growth. When a corporation decides whether to invest it needs to make sure its after-tax return is high enough to satisfy investors. The tax on corporate income, as well as on the investment income for the investor, increases the cost of capital. This leads to lower level of investment and a smaller capital stock in the overall economy and therefore to lower worker productivity, lower wages and slower economic growth (Pomerleau, 2015; Ginn and Heflin 2015).

Recent studies show that, e.g., cutting in the U.S. the corporate tax rate from 35% to 24% would boost the level of the Gross Domestic Product (GDP) to nearly \$370 billion. And more than that, the resulting feedback from this new growth, in turn, would generate an additional \$11 billion in revenues (Hodge, 2015; cp. Fehr cs. 2013). In short, the tax burden of the corporate income tax on investment is pernicious (Mitchell, 2015).

The market process

There is a second, far less known, but from an entrepreneurial point of view more important reason not to tax business. Economic growth is a function of economic freedom. This since the essence of the market economy—from the perspective of the modern Austrians—is that it is a system of competitive-entrepreneurial discovery. What characterizes the market economy is competition, what drives the market is entrepreneurship, and what constitutes the steps in the market process are discoveries. In the market process we discover new ends and means. Accordingly, a tax system can be assessed with respect to the ability to promote creative acts of entrepreneurship. So we do ask the question: What influence does the tax system have on the market's competitive-entrepreneurial discovery process and hence the future growth of business?

First we do state the core of the just-mentioned modern Austrians. Israel Kirzner, one of the present day leading figures in Austrian economics, describes modern Austrianism as an authentic extension of Carl Menger's older static subjectivism: a consequent dynamic subjectivism. In modern Austrianism, the two central figures are Ludwig von Mises and Friedrich Hayek. Both authors focus on market adjustment processes. Kirzner, building his theory as Mises and Hayek did, believes that one of the greatest failures of mainstream neoclassical (equilibrium) analysis is that it assumes equilibrium is actually brought about. The real problem is to describe the realization of an equilibrium as the result of "the systematic way in which plan revisions are made as a consequence of the disappointment of earlier plans" (Kirzner, 1962, p. 381). The entrepreneur has to be alert, e.g., to already existing, but as yet widely unnoticed changes (Kirzner, 2008, p. 4). It is to be noted, however, that modern-Austrian economics does not aim at exploring the roots and the determinants of individual entrepreneurial alertness. It is just that the nature of the market process is seen more clearly by paying attention to entrepreneurial alertness---indeed is driven by such alertness (o.c., p. 5).

From the Austrian point of view, we infer four reasons not to tax the entrepreneur and therefore business (cp. Leen 2004).

(1) If the market is a process of discovery, the first effect of a tax system is not its effect on "the relative preferability for the decision maker of already-perceived alternative courses of action" (Kirzner, 1985, p. 94). This as the mainstream neoclassical economist tells us. The effect we have to take into account is "the possibility that the tax may have, perhaps, significant impact upon the very perception by the prospective taxpayer of what array of opportunities are available for his choice" (o.c., p. 94). By emphasizing the alertness of the entrepreneur to new ends and means we subscribe to the just-cited tradition of the Austrian school of economics.

We illustrate this look on taxation by distinguishing between the truly unexpected and the counter-expected. Uncertainty (risk) is first and foremost illustrated in the appearance of something completely unexpected. "[T]he situation holds unknown possibilities unconstrained by known constraints. It is the entrepreneur's awareness of the open-endedness of the decision context that appears to stimulate the qualities of self-reliance, initiative, and discovery" (Kirzner, 1985, p. 109). For the neoclassical, however, only counter-expected things do happen. He thought to be 99 percent sure the sun would shine tomorrow. But the counter-expected did happen---it rained.

It also follows, and that is the crux of creating growth, that first and for all, an error (utter ignorance) in a market economy does unveil itself by showing up as an opportunity for monetary profit. If this is the case, we can infer that any form of taxation that lowers prospective profits and hence stifles the stimulating open-endedness of the entrepreneurial situation goes against the entrepreneurial process of discovery. The curtailment by taxation of the open-endedness of the discovery process is our first reason to exempt the producer from taxation.

(2) We do exclude the entrepreneur from taxation since demand is not the desire of the consumer for a hypothetical product not yet produced. "[T]he demand that is expressed in the demand curve for a product means the quantities of it that consumers will be prepared to buy, at given prices, when offered the opportunity of doing so" (Kirzner, 1973, p. 178). To be more specific "production decisions are determined by entrepreneurial anticipation of the patterns of demand that will be evoked by alternative production plans" (o.c. p. 176). So if the

distortions of taxation—that is the impact on the discovery process—should be minimized, taxes should not be levied on the entrepreneur. Since he is the first, the *conditio sine qua non*, to come up with something new in the causal market process. Though of course there are entrepreneurial consumers. The producer hires, e.g., a trend watcher to spot those entrepreneurial consumers with their new means and ends. Monetary gain, however, is by definition no part of the consumer's motivation. So taxation does not have any influence on that process. In general we can state that if the producer does not start with a new product, no one else will do it for him.

(3) If it is entrepreneurship we do focus on profits, as just have been shown, have to be as visible and as promising as possible. Entrepreneurship, however, involves not only fundamental uncertainty in general but also, and of particular relevance of here, uncertainty as far as the complexity and instability of the tax code goes. Think of the many legislative changes and tax court rulings. [F]rom the point of view of the prospective entrepreneur the profit opportunity is, with all its uncertainty, there" (Kirzner, 1973, p. 83). [T]he alert entrepreneur, discovering what seems to be an attractive opportunity, [however] may have considerable misgivings [uncertainty] concerning the venture" (Kirzner, o.c., p. 78). Often, because of either the sheer size or instability in the tax code, it is impossible to predict (there is fundamental uncertainty) the tax consequences of a particular activity. This uncertainty leads to a loosening of the entrepreneurial grip on pure profit. This since profits or losses arising from tax changes, by a fortunate or unfortunate change in the tax system, do appear after the entrepreneur has taken up his position. A potential and in fact superior vision may be highly stifled. We do remove much of the incentive—to "purposeful alertness, the alert purposefulness" (Kirzner, 1999, p. 39)—for paying attention to the unknown. Hence a tax system should be simple, predictable, and, preferable, exclude the producer-entrepreneur.

(4). Austrians emphasize the division of knowledge and its growth. Entrepreneurial opportunities tend to appear within the context of a specific time and place. So—after Friedrich Hayek—a decentralized economy is the place to look at. It allows individuals to act on their entrepreneurial insights, and rewards them for doing so. The institutional setting of the market is especially fitted to stimulate discovery. It produces an environment where entrepreneurship is stimulated. And since entrepreneurial insights lay also the foundation for additional entrepreneurial insights the growth process of the economy is sustained. The market system encourages the full use of (decentralized) human knowledge. There is no efficient non-market, e.g., governmental, resource allocation. This was the insight the Austrians tried to bring to the fore in the socialist-calculation debate that raged in the interwar period. A debate that began with the question, "Is an efficient non-market resource allocation possible?" For the Austrian, market based prices are necessary to signal scarcity, to transmit knowledge, and to stimulate discovery. Hence the government cannot be trusted to do this job for society, that is, guiding the discovery process, by changing the relative preferability of outcomes and means of production by means of the corporate income tax. Next to the unfairness and inequity of a government that picks winners and losers, there simply is no efficient governmental resource allocation by means of taxation, namely to guide the discovery process.

In sum, entrepreneurial alertness needs to be cultivated (Reed and Olson, 2014); lower taxes on business profits seems to be a part of the answer. This because taxing profits stifles the open-endedness of the market process, curtails the unique role of the entrepreneur in the market process, increases the uncertainty surrounding the market process, and misdirects the market process because of the governments fundamental lack of knowledge.

A SOUND TAX SYSTEM: THE CRITERIA OF ADAM SMITH AND JEAN-BAPTISTE SAY

What characteristics do Adam Smith and Jean-Baptiste Say use to describe a sound tax system?

Smith four criteria

In his *magnum opus: An Inquiry into the Nature and Causes of the Wealth of Nations* (1776, pp. 888-890) Smith (1723-1790) states four principles a good tax should adhere to.

One, [t]he subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the proportion of the state. The expense of government to the individual of a great nation, is like the expense of management to the joint tenants of a great estate, who are all obliged to contribute in proportion to their respective interests in the estate.

Two, [t]he tax which each individual is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid, ought to be clear and plain to the contributor, and to every other person. Where it is otherwise, every person subject to the tax is put more or less in the power of the tax gatherer, who can either aggravate the tax upon any obnoxious contributor, or extort, by the terror of such aggravation, some present or perquisite to himself.

Three, [e]very tax ought to be levied at the time, or in the manner, in which it is most likely to be convenient for the contributor to pay it.

And four, [e]very tax ought to be so contrived as both to take out and to keep out of the pockets of the people as little as possible, over and above what it brings into the public treasury of the state.

In short, a sound tax system would have the requirements of fairness/equity, certainty/transparency, convenience and economy/efficiency.

Does the corporate income tax live up the Smith's criteria? We do start with his first characteristic. According to Smith a tax should be based on who benefits from that where the proceeds of a tax are used for. In history, the benefits principle is one of the most prominent ways to determine in a fair way who should bear the burden of a tax. The other principle is the ability-to-pay principle. Though for Smith they are almost the same; he equals more benefits with more ability to pay. The benefits principle of tax fairness, as chosen by Smith, says that those who benefit from public spending should bear the burden of the tax that pays for that spending. For Smith the primary benefit the government provides, is the protection of each individual's wealth. This includes the creation of social welfare programs; so the poor do not turn against the rich (Moran, 2009, p. 205).

This all seems quite reasonable, but does not imply the necessity of a corporate income tax. This since--the fact is---that though business are legal (entities) persons, and do no doubt benefit from government expenses, they are not natural persons---and only natural persons do pay taxes. (If not, let us establish a corporation whose sole aim is to pay our taxes.) As said by Milton Friedman (1972, p. 86): "The elementary fact is that 'business' does not and cannot pay taxes. Only people can pay taxes." Businesses are just the tax collectors who do forward money to the government--- and that money comes from the corporation's employees, customers or stockholders.

Though it is often difficult to know who 'really' pays a tax, no matter what sort of tax:

"this difficulty is greatest for taxes levied on business. *That fact is at one and at the same time the chief political appeal of the corporation income tax and its chief political defect.* The politician can levy taxes, as it appears, on no one, yet obtain revenue" (o.c., p. 86-87).

To tax individuals directly would make it far more clearer who really does pay the tax. Corporations are just legal fictions and legal fictions do not pay taxes. It is also highly misleading to treat them as persons who do really pay taxes. It is also better to tax the dividend, property and wealth of individuals (Moran, 2009)---but not to tax the income of the firm.

As for Smith's second characteristic of certainty: taxpayers should be able to determine the amount of the tax they must pay as well as when and how they should pay. The incidence of the corporate income tax is, however, unclear. Who ultimately shoulders the burden of the corporate income tax? No one knows. There is no one rule that fits all unique situations of time and place to infer the incidence of the corporate income tax.

In other words, though the corporation technically "pays" the tax, those costs are passed on to others. In a recent meta study reviewing 45 of the major studies on the matter, it was concluded that almost 60 percent of

the corporate tax burden falls on native or foreign workers (Southwood, 2014). In the U.S. it was found that domestic labor bore slightly more than 70 percent of the burden of the corporate income tax (Sinclair, 2012, p. 261). Hence, it is unclear who pays the tax but for sure it is not the firm. And more than that, it is not a democratically chosen government---as it should be---but a firm, next to the market forces, who determines, to a certain extent, the incidence of the tax. The taxpayer is also condemned to the whims of the firm.

Third, a tax should be levied at the time it is most likely to be convenient for the taxpayer. Just as the sales tax and the income tax is taxed at the moment of the purchase or receiving the income. But since the tax code for the corporate income tax---if only trying to cure tax evasion---is changing constantly there is often no certainty at all.

Fourth, taxes should have minimum administrative and compliance costs. The burden of complying with the tax code on the firms, however, is enormous. The Dutch tax code has been described as “an impenetrable jungle in which so-called (fiscal) Tarzans laboriously try to go forward while slinging on fragile lianas and uttering unintelligible primal screams” (Vries and Brandsma, 2014, p. 1178). For 2008, in the U.S., “a total of \$ 161.7 billion was spent by businesses complying with the tax code” (Laffer, Winegarden and Childs, 2011, p. 20). The same as for the Dutch and U.S. goes for the U.K. tax code: it “is one of the longest in the world at over 11.000 pages, thanks largely to its absurd complex system of company taxation” (Booth, 2012).

In sum, the corporate income tax does not adhere to Smith’s four principles for a sound tax code.

Say’s five criteria

In his *Treatise on Political Economy; or the Production, Distribution, and Consumption of Wealth* (1803), the most popular textbook on economics in the U.S. during the mid-1800s till 1880, Say (1767-1832) states his five principles of taxation. Say was the best-known expositor of Smith’s views in Europe and America. His *Traité d’économie politique* was translated into English and used as a textbook in England and, as just-said, the United States. For Say, the principles are almost self-evident. In general, “[t]he best taxes, or rather those that are least bad, are

(1) Such as are the most moderate in their ratio. (2) Such as are least attended with those vexatious circumstances, that harass the tax-payer without bringing anything into the public exchequer. (3) Such as press impartially on all classes. (4) Such as are least injurious to reproduction. (5) Such as are rather favorable than otherwise to the national morality; that is to say, to the prevalence of habits, useful and beneficial to society” ([1803] 1855: III.VIII.11).

After looking at the criteria as used by Smith what is new from the criteria as used by Say?

Say’s second criteria resembles Smith second and third principle (certainty and convenience as to time and manner of payment). Minimizing these circumstances includes the administration and compliance costs of taxation (Brandy, 2007, p. 70).

His criteria three, which looks like the ability-to-pay principle, seems almost the opposite of Smith’s first one: the benefits principle (rates set in proportion to revenue). For Say the tax side and the expenditure side are viewed separately. For Smith the tax side and the expenditure side are connected. For Say taxation must be impartial. As a consequence everyone can compete on even terms with the rest. “Favour to one is most commonly injustice to all others (o.c. III.VIII.31). As far as this impartiality or uniformity principle of taxation goes, Say, however, does not favor an equal proportional tax to all. He makes the case for a progressive system. “[T]axation must not only be equitable apportioned, but must press on revenue with progressive gravity” (Say, o.c., III.VIII.34.). Practically for Say this means that superfluities, as can be bought with a higher income, need to be taxed more than necessities. A high income is also a proxy to distinguish between superfluities and necessities. So after all in practice the differences between Smith and Say are not that big.

Say’s other criteria (most moderate, least injurious to reproduction, and favorable than otherwise to the national morality) are probably based on the difference between Smith’s and Say’s philosophy of the use of paying taxes in the first place. For Smith, “every tax, however, is to the person who pays it a badge, not of

slavery, but of liberty” Say, however, compares taxation to theft, extortion, and even suicide (Brandly, 2007, p. 68). Probably both Smith and Say are right. Of course governments do need some money. Taxes also do have to be paid---but at some point beyond that, taxation becomes nothing more than legalized stealing. Say also gives examples where lowering a tax has no effect on, or even increases tax revenues. Just as increasing taxes has no effect or even decreases the tax revenue. For Say, the exception for allowing higher taxes is if the aim is to curb vices. If a vice is generating harmful effects then reducing that activity generates positive benefits to the community (Say, o.c., III.VIII.56).

With his other criteria Say is clearly in line with the modern Austrian tradition: taxes should harm capital formation as little as possible. Hence the full title of Brandly’s (2007) article is: “Jean-Batiste Say, the Father of Austrian Public Finance: Views on Taxation”. This is especially illustrated in Say’s first and fourth principle: taxes should be low and no tax should damage the economy out of proportion to the revenue it raises (Pirie, 2013). For Say, taxation, not under-consumption---as is the wisdom of the Keynesians---is a factor limiting production (o.c., p. 66). Say is best known for his law of markets, which postulates that supply creates its own demand. Say attributed economic depression not to a general weakness in demand but to temporary overproduction in some markets and underproduction in others.

Though this does not mean that Smith was not aware of the consequences of taxes on wages and profits. For Smith both taxes diverted resources from wealth-creating activities. Taxes on the profits of stock were destructive of wealth creation because stock cultivates land and labor and a tax on profits diminishes both the rent of land and the wages of labor (Walton, 2014).

CONCLUSION

The immorality of the corporate income tax is clear. It keeps people poor because it causes a lack of capital formation and hence stifles labor productivity and wages. Just as well as the tax stifles the competitive entrepreneurial process of discovery. Nevertheless the tax is favored by low income groups. Probably because of the misunderstanding that corporate income taxes are paid by businesses. A popular misunderstanding the government does play up to. As is said: “corporate taxes may exist in part because of the political advantage of imposing taxes the burdens of which are difficult to trace through individuals” (Auerbach, 2008, p. 30). The tax also lacks transparency.

The corporate income tax can best be described as a populist tax. In fact it is often, even by socialists, introduced and supported as a form of class warfare; eliminating corporate taxation would be branded a giveaway. In reality, however, businesses are only the tax collectors at best or, at worst, non-democratic institutions who determine who does pay the tax. Business, and not the democratically elected government, determines who does really pay the tax: consumers, workers or shareholders. Besides it is a very cost ineffective way to tax. This given the huge compliance costs. In sum, if we do abolish the corporate income tax and do change it for a direct tax we do better see who does pay---and live up to Smith and Say’s criteria of a good tax.

What to do to live up to Smith’s and Say’s criteria for a sound tax code? First, in discussions to tax or not to tax corporations play the ethical trump card of the fundamentally immorality of the tax: it lets workers, probably especially the poorest of them, pay and keeps them poor. The last is done by stifling capital formation and the entrepreneurial process of discovery. Second, to state out the myth, again and again, that prevails in popular discourse that the corporate income tax is somehow paid by corporations. Corporations are just legal fictions and no more. Just as your car does not pay your road tax or your house does not pay your real estate tax. Third, corporation tax lacks public legitimacy. It is “decided” by businesses and not the democratically chosen government. Fourth, to make the case to abolish the corporate income tax and instead tax people by a simple consumption tax and/or a tax on distributed income (Sinclair, 2012; cp. Rattner, 2014). Since most countries already have gradually moved toward collecting a large share of their revenue from value added taxes (Hassett and Mathur, 2009), a lower corporate income tax would also put the U.S. tax system more in line with other OECD countries. By a tax on distributed income (a capital income tax) we do mean to tax income, namely interest and dividend, as and when it flows to people. However, rather than entirely abolishing tax collection at the corporate level and leaving it up to individuals to declare their dividend individually it should be levied, at

the corporate level. Just as is done by labour income (o.c., p. 270). This for reasons of lowering the overall burden of administration and reducing the scope for evasion.

To conclude, and may be most surprisingly, gaming the tax system might be not that bad after all---at least for the ordinary workers. For they do no longer have to pay the main share of the corporate income tax bill.

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PARENTAL INVOLVEMENT IN CHILDREN'S EDUCATION

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ABSTRACT

Parental involvement in a child's development takes many forms, including good parenting in the home, the provision of a secure and stable environment, intellectual stimulation, parent-child discussion, good models of constructive social and educational values, and high aspirations relating to personal fulfilment and good citizenship. Research indicates that parents who maintain contact with their child's school for the purpose of sharing information, participating in school events, participating in the work of the school and participating in school governance aids in fostering that child's educational development. According to research findings, parental involvement has a positive effect on a child's academic achievements. The aim of this study was to determine the level of involvement parents in the Vanderbijlpark area of the Gauteng province of South Africa have in their children's education. For the study, 252 (N=252) parents from three primary schools completed a questionnaire regarding their involvement in their child's education. The results reveal that most of the parents are involved in their child's education, and that this involvement includes helping with homework, volunteering at the school and explaining academic work to the child. While on the surface this appears positive, it does raise some serious questions. For example, at what point does helping with a child's homework turn into doing the homework for the child and when does involvement in the school turn into interference. This implies that there is an urgent need to develop policy guidelines that clearly specify the type and extent of a parent's role in their child's education.

Keywords: Parental involvement, children, education, policy

INTRODUCTION

Most children have two main educators in their lives – their parents and their teachers. “Parents are the prime educators until the child attends an early years setting or starts school and they remain a major influence on their children's learning throughout school and beyond” (Ojha, 2014). Parents as well as the child's school have crucial roles to play (Tarsilla & Lydiah, 2014). Parental involvement can take many forms, such as involvement at the school (for example, helping in the classroom or during lunch breaks, as a governor), reading to the child at home, assisting with homework and teaching songs or nursery rhymes (Carbonel, Banggawan, Agbisit, & Ph, 2013). Fisher (2014) stated that parent involvement has been an extensively debated concept by parents, teachers, as well as policy-makers. However, the question still arises whether or not parent involvement is more than just a “feel good” idea? According to Desforges and Abouchaar (2003) scholars' achievement and adjustment are influenced by people, processes and institutions. Children's progress towards their self-fulfilment and citizenship is shaped through their parents, the broader family, peer groups, neighbourhood influences, schools and other bodies such as churches and clubs (Desforges & Abouchaar, 2003). Farhana, Akther, Talukder, and Islam, (2015) stated that children, with their exceptional abilities, personalities and inclinations play a central role in forming and reforming their behaviour, aspirations as well as achievements.

It is widely recognised that parent support is important when pupils want to maximise their potential from schooling (Sumaiti, 2012). Across the globe, governments, administrators, educators and parent organisations attempt to enhance parental involvement in education. Green, Little, Kamat, Oketch, and Vickers, (2007) emphasised the importance of parents' role in the promotion of their own children's achievements

nonetheless more broadly in school improvement and the democratisation of school governance. According to the European Commission, parental participation is a significant indicator of the quality of schooling.

Overall, research persistently indicated parental involvement in children's education has made a positive difference to pupils' achievement (Harris, Harris, Goodall, & Goodall, 2007). The Department for Children, Schools and Families (DCSF) published the child's plan in 2007, which highlighted the importance of partnership amongst parents and schools to support children in their learning. The DCSF's publication further focuses on how greater support available to parents will involve them in their child's education (in the early years and throughout school), (Vorhaus, 2011).

Mostly parents have been actively involved in the promotion of their children's educational progress and development, regardless of government policies. Parental involvement has been seen as a spontaneous activity which has taken various forms such as 'good parenting' in the home prior to commencement of school, that provides a solid foundation of values, attitudes, skills and self concept; visits to the school to establish good relationships as well as gather relevant information; discussions with teachers to keep informed about the child's progress or to discuss embryonic problems; as well as assisting more extensively in the practical activities and governance of the school.

In England, the Government realised the importance of parental involvement by implementing a strategy for securing parental involvement and published it in the 1997 White Paper, 'Excellence in Schools' (Desforges & Abouchaar, 2003). This strategy focuses on three elements, namely a) providing parents with relevant information, b) giving parents a voice and c) encouraging and enhance parental partnerships with schools. This strategy has since been implemented in a wide range of activities which include a) the enhancement and encouragement of parent governor roles, b) involvement in inspection processes, c) providing annual reports and prospectuses, d) the requirement and necessity for home-school agreements and e) providing parents with increasing amounts of information pertaining to the curriculum and school performance. Through implementing this strategy the importance of parental involvement is emphasised and indicates that it has a vast and positive effect on children's learning. Therefore it is important to realise that the identification of interventions, which are effective in supporting parental involvement, should be a priority. It should especially be a priority for parents who are either not involved at all, or who are not significantly involved in their children's education.

Considering that parental involvement should be a priority for parents, the amount and form of parental involvement will be strongly influenced by parental level of education, material deficiency, parental psychosocial health, single parent status, family social class and, to a lesser degree, by family ethnicity. In order to understand the impact of various forms of extemporaneous involvement and of the considerable range of intervention studies on achievement and adjustment must recognise all the many factors, which impose on school outcomes.

Overall, research in the field requires some definition of what kind of involvement is crucial, such as the specification of which school outcomes are predicted to be produced the means of measuring or evaluating these anticipated outcomes as well as the means of analysis which affords logical conclusions regarding the influence of parental involvement on outcomes. During a child's development, learning as well as their success at school and in life, parental involvement is considered to be a crucial force. Love (2014) stated that decades of research in the area of parent and family involvement have continuously supported the fact that parents who are involved in their children's lives and education have a much greater chance to develop into healthy, knowledgeable, responsible, and caring adults.

Parental involvement in education has many faces and assumes variable degrees, which include things such as asking simple questions at the dinner table like "How was school today?", checking and signing off on the child's homework, regular field trips including museums, libraries, cultural and art events as well as participating in program evaluation and other decision making activities (Vaden-Kierman & McManus, 2005). Even though there is a wide variety of parental involvement "definitions," it remains a challenge to link information throughout studies, fields, and programs; therefore one of the reasons why a widely accepted definition is lacking is due to the fact that family involvement is a complicated concept. Thus, it is important that child characteristics, development, beliefs and expectations of family and school, different roles parents,

students, and teachers play, cultural perspectives and life demands policies which outline or mandate schools to forge relationships with families, are taken into consideration. All these contribute to what is known as school-family partnerships.

Whilst an increased amount of governments have strategies and policies in place for the standards of accomplishment in academic subjects, there still remains a significant gap in the comparative levels of accomplishment amongst children in diverse social classes. The gap is related to various levels of parental involvement, which are broadly conceived. In Canada the Canadian Ministry of Education has been striving for a new relationship among all the groups that make up the publicly funded education sector that is based on the “new three R’s”: Respect, Responsibility, and Results. Thus, there should be common respect, mutual responsibility and agreement about results: in other words a real partnership. Therefore it is important to note that a government’s educational strategy and policy as well as parents play a vital role in the development and education of children and in the success of schools.

METHODOLOGY

The research study followed a non-probability convenience sampling method to collect data. This method was utilised due to its effectiveness as well as inexpensiveness. A relatively large sample group was targeted to eliminate the shortcomings of this method (Sekaran, 2003). The target population was specified as 252 parents of grade 1-3 children, taken from three different schools in the Vanderbijlpark, Gauteng area in South Africa.

Measurement instrument and data collection procedures

A self-administered structured questionnaire was used to collect the required data. The questionnaire included the parental involvement: model revision through scale development of Walker *et al.* (2005) and demographic information. The scale included 10 items, grouped together into one dimension namely parent involvement. Responses were measured on a six-point Likert scale, which ranged from disagree very strongly (1), disagree (2), disagree just a little (3), agree just a little (4), agree (5) and agree very strongly (6). The questionnaire was distributed to the parents and collected by the schools. To ensure confidentiality an envelope where attached to each questionnaire. The researchers collected the enclosed questionnaires and administered it.

RESULTS

The statistical package IBM SPSS Version 22 was used for the data capturing and analysis. The descriptive demographics of the participating parents indicate that most are female presenting 77.3% and 22.7% are male. The biggest distribution of parents is in the age category of 30-39 years of age and 36.6% have completed their high school education. With regard to employment 70.2% of the parents are full-time employed. The results are reported in Table 1.

Table 1: Demographics of the parents

Gender		Age		Education		Employment	
Variable	%	Variable	%	Variable	%	Variable	%
Male	22.7	20-29 years	9.0	Postgraduate studies	23.9	Full-time	70.2
Female	77.3	30-39 years	62.9	Bachelor degree	12.3	Part-time	10.6
		40-49 years	24.2	Undergraduate diploma	8.2	Unemployed	4.9
		Above 50	1.2	Technical qualification	4.5	Home duties	12.7
		Not specified	2.5	High school	36.6	Retired	0.4
				Still at school	1.6	Student	1.2
				Other	12.8		

As presented in Table 2, the item, talk with my child about the school day, scored the highest of all ten items with a mean value of 5.75, followed by help my child with homework (5.72), and explain tough assignments to my child (5.70), whereas, volunteer at the school, scored the lowest with a mean value of 4.33. The Cronbach alpha for the likert items indicates that the internal reliability and consistency of the likert items are acceptable and provided in Table 2. The items scored a total Cronbach alpha of .812, which exceeded the recommended level of 0.70 as suggested by Nunnally (1978).

Table 2: Distribution of parents pertaining to the specific questions

Likert Variable Description	Mean (μ)	StdDev (σ)	CoV (C_v)
Volunteer at the school	4.33	1.25	29%
Communicate with my child's teacher	5.63	0.64	11%
Help my child with homework	5.72	0.53	9%
Make sure the school has what it needs	4.80	1.19	25%
Support decisions made by the teacher	5.19	0.91	18%
Stay on top of things at school	5.32	0.91	17%
Explain tough assignments to my child	5.70	0.63	11%
Talk with other parents from my child's school	4.90	1.07	22%
Make the school better	5.11	0.97	19%
Talk with my child about the school day	5.75	0.72	13%
Cronbach's Alpha (α) = 0.812			

Table 3 illustrates the inter-item correlations, which should be significant for items that measure relative concepts. Communication with my child's teacher correlates with support decisions made by teacher (0.52), stay on top of things at school (0.57) as well as explaining tough assignments to my child (0.56). All of these main aspects are communication with regard to school aspects. Intuitively, making sure the school has what it needs and making the school better is the same concept, thus the correlation should be the strongest which it is (0.62).

Table 3: Inter-item correlation

	1	2	3	4	5	6	7	8	9	10
1	1.00									
2	0.29	1.00								
3	0.14	0.43	1.00							
4	0.38	0.27	0.18	1.00						
5	0.31	0.51	0.32	0.35	1.00					
6	0.38	0.57	0.43	0.43	0.57	1.00				
7	0.19	0.56	0.46	0.20	0.47	0.48	1.00			
8	0.32	0.22	0.09	0.23	0.28	0.29	0.21	1.00		
9	0.40	0.27	0.21	0.62	0.34	0.42	0.20	0.36	1.00	
10	0.18	0.40	0.31	0.08	0.36	0.34	0.51	0.12	0.09	1.00

DISCUSSION

Parental involvement has been an extensively debated concept by parents, teachers, as well as policy-makers (Fisher, 2014). As indicated by research, positive academic outcomes stem from parental involvement that ranges from early childhood and benefits to adolescence and beyond (Henderson & Mapp, 2002; Patrikakou, Weissberg, Redding, & Walberg, 2005). Globally, research places an emphasis on the importance of major

educational policies and legislations for parental involvement. The term parental involvement appears nine hundred times in the current educational strategy known as “No Child Left Behind”. For the first time in major legislation, a parental involvement definition appears:

“Parent involvement means the participation of parents in regular, two-way, and meaningful communication involving student academic learning and other school activities including ensuring that (a) parents play an integral role in assisting their child’s learning; (b) parents are encouraged to be actively involved in their child’s education at school; and (c) parents are full partners in their child’s education and are included, as appropriate, in decision making and on advisory committees to assist in the education of their child” (Brown, 2006, p.4).

A study by Lemmer and van Wyk (2004) in South Africa, where principals were interviewed from schools in various provinces and backgrounds, found that parent’s involvement can have a positive influence on the school as well as the child; however working with parents can sometimes be daunting. Furthermore, the authors found that schools use volunteers for help in the classrooms as well as sport coaching and cultural events. None of schools with participating parents had a policy regarding parental involvement. In the current study the majority of the parents agreed that they are involved in their child’s education, school, homework and volunteer at the school, however the most parental involvement for these parents include, talk to my child about the school day, help with homework and explaining tough assignments, more so than volunteering at the school. None of the participating parents’ schools have parental involvement policies, owing to the fact that these policies are not yet structured and implemented in South Africa, whereas these policies are common in various other countries, such as England and Canada (Goodall & Vorhaus, 2011).

While on the surface this appears positive, it does raise some serious questions. For example, at what point does helping with a child’s homework turn into doing the homework for the child and when does involvement in the school turn into interference. More in-depth research might be done to answer these questions and to get clarity about parent’s involvement in their child’s education. This implies that there is an urgent need to develop policy guidelines that clearly specify the type and extent of a parent’s role in their child’s education.

Limitations of the study

The research study was conducted at only three schools in the Gauteng province of South Africa, which is a limitation. Therefore, the results cannot be generalised to other South African schools. It would be of value if the study could extend to other schools, either in the rest of the Gauteng Province or to the rest of the country, to determine whether the results will be of a similar nature. Therefore, it is advised that more in-depth research relating to parental involvement is necessary.

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DEVELOPING OF THE BUSINESS MODEL WHILE ENTERING THE FOREIGN MARKET

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ABSTRACT

When companies cross the borders of the national market, it leads to changes in the operating conditions and in the strategy. External factors that include institutional base, intensity of local competition, sophistication of interorganization communications, force the organization to adapt strategy and business model to achieve the objectives. The report presents the preliminary results of the study, how to update the company's business model while entering foreign markets. On the example of Finnish company Lassila & Tikanoja, which operate on the market of environmental management, will be shown, how the external factors force company to change the business model.

Keywords: International strategy, business-model, strategic decisions, changes in business-model

INTRODUCTION

During last decade there were a lot of examples of companies that crossed the borders of the national market. This is accompanied by an increased role of companies running their business or based in developing countries. Moreover, we can also see the change in priorities of choosing the form of international activity. Despite the fact that the export of products or services is by far the main model of crossing the borders of the national market, compared to the years 2012-2013 there is an increased number of partnerships in the new foreign markets and their importance (2014).

By developing of international businesses' integration processes lots of traditional concepts and models of strategic management require new methodological approaches, which will consider management network approach and organization of international transactions, interrelations of decisions in international and general strategies. However, the process of entering the foreign market updates business-model, which has to meet the new challenges and operating conditions. At the same time, the question of necessity of balancing individual elements of the business model with the parameters of the environment, including the need to develop an interworking, is arising.

Thus, the traditional elements of the strategic process of the business internationalization do not fully take into account the peculiarities of business expansion abroad. In the classical approaches strategic process involves continuous development and changes in company's scale and business ideas, organizational principles, actions, shared values and norms. In general this process involves three aspects of the company: strategic thinking, strategy elaboration and strategic changes (2005). The strategic process is closely linked with other strategic aspects: organizational intentions and strategic context, which define the content of the strategy and results of the strategic activity of the company. A feature of the strategic processes in terms of rapid changes, transformations of business models and value creation of the company has cyclical nature. Therefore, to respond and change the strategy quickly, if necessary, it is needed the constant monitoring of internal and external changes.

When expanding business abroad, a set of strategic decisions and actions must take into account new aspects: the expansion of the geographical scope, the construction of the international operations integration,

adaptation to local conditions, transfer of assets and technologies, access to the resources of the new market through the strategic alliances or cross-border mergers and acquisitions. In this regard, changes are needed in all the interrelated elements of the classical model of strategic management of Johnson and Scholes [7]: strategic analysis, strategic choice and strategy implementation.

Conditions, which are determine the strategic decisions while entering the foreign market

Doing business abroad dues to a number of factors that determine the motives and goals of the company. Thus, the feasibility of entering the foreign market may be associated with excess resources or intangible assets – technologies, licenses, experience in managerial and marketing activities, which can become the basis of competitive advantage in foreign markets. The desire to use and strengthening intangible assets is pushing company to internationalize their international operations through the establishment of foreign controlled units (1998).

Internationalization goals depend on the specifics of the business and the underlying market, strategic assets of the company and the way of international business expansion. For example, companies from developed countries enter the emerging markets to find new customers or to increase efficiency, considering the production and marketing low costs of standardized products in underdeveloped markets (2007, 2000, 2000). Despite the fact that companies in developing countries pursue all four selected targets (2003), the main goals are often to strengthen strategic assets or find new customers (2007, 2006). These companies seek to gain access to valuable organizational resources in foreign markets in order to strengthen their competitiveness (2005, 2006, 2000). As well as internal and external factors impede or facilitate business development, it is necessary to conduct a comparative analysis of the business environment on the underlying and foreign markets and identify their differences. Foreign markets differ in many characteristics: consumer preferences, language, legal system, infrastructure, business culture, etc. In addition, the companies' activity largely depends on international financial flows, interdependence of the economies, and political and economical stability of the international environment. Therefore, during the international strategy elaboration, it is advisable to conduct strategic analysis of the environment with the expanded set of the international and local factors, because strategic decisions depend not only on the individual characteristics of the foreign market, but on differences from the underlying market conditions as well (1988, 1995). Differences between underlying and foreign markets can vary. First of all, it is needed to understand the preferences of consumers, labor law, business rules that determine the costs of overcoming the entry barriers of foreign markets. Differences in political, administrative and legal institutions determine contractual or other business-risks, especially when there are the conditions of political instability or permanent changes in legislation (2002). Finally, the specific features or requirements of foreign markets may devalue abilities of the company (2002), which will require additional costs for their adaptation to the new conditions (2007). Thus, the strategic analysis of the external context of international strategy implementation involves identifying factors that characterize the business environment in the foreign market, and the definition of significant differences that affect the ability or barriers in this market.

Most of the external factors, which determine the company's' expansion strategy, are economic in nature and the nature of its impact, however, the importance for strategic decisions of infrastructural (such as the quality of roads, bridges, railways, power generation and transmission, telecommunications and communications, market infrastructure), the political and institutional characteristics of the foreign market is increasing. In addition, the focus of strategic analysis shifts from resources that exist in the market (e.g., natural resources) and can be purchased, to the resources that can be created (for example, resources, knowledge-based) in existing infrastructural and institutional conditions. This affects the ability of the company to use its competitive advantages in the new institutional environment (2008) Thus, doing business in foreign market extends the set of the elements of the strategic management. In particular, it concerns to strategic analysis and decisions on various aspects of the organization. Elaboration and implementation of strategy are influenced by interrelated irreversible trends: globalization, technological development and increased amount of inter-organizational partnerships (2011). Globalization blurs the boundaries of geographic markets; technological process causes the increasing interdependence of the industries; strategic alliances, international joint ventures and global networks blur the organizational boundaries. National, market and organizational boundaries become less clear. It leads to creation of challenges and opportunities for business expansion beyond the underlying

market. In that way, the analysis of the factors at the meso-level, which reflect the characteristics of inter-ethnic, inter-market and inter-organizational relations in the foreign market, is more expedient.

Conditions, which define the business-model update

When company crosses the borders of the national market, it faces a number of contradictions, which are concerned the business-model update. First of all it touches upon the coordination of activities in all markets and peculiarities of foreign markets. It requires coordinated decisions on access to new geographic and product markets, competencies, technologies and brands management. Strategic actions, which are aimed to increase the profit from the specific features of foreign market and combination of international assets of the company, are connected with as well as internal development of the company and formation of strategic partnerships, alliances, inter-organizational networks, which are needed to succeed in foreign markets (2011). At the same time companies face unpredictable business environment: local consumer preferences are constantly changing, while the creation of new knowledge and its transfer, use, and depreciation occurs rapidly (2011).

Most of external factors, which are define the strategy of company's foreign expansion, are economic by nature and the character of the impact. However infrastructural (such as quality of roads, bridges, railways, power generation and distribution, communications and market infrastructure), political and institutional peculiarities of the foreign market become more important for strategic decisions. Moreover while implementing business-model the focus shifts from the recourses, which are exist in the market (e.g. natural recourses) and can be purchased to the recourses, which can be created (e.g. recourses that are based on knowledge) in basic infrastructural and institutional conditions. It influences on the abilities of the company to use its competitive advantages in the new institutional environment (2008).

The quality of institutions (e.g. legal and regulating) has an influence on the indicators of the foreign market investment attractiveness. Moreover, the institutions, which are regulating the distribution of resources between the parties and ensuring the contracts execution (local government institutions), determine the opportunities and features of inter-organizational interactions in the market. The development of the institutional environment also affects on the transfer of technologies and knowledge, conditions of creating and doing business (2005, 2009). If the institutional conditions of basic and foreign markets are getting closer, it leads to an increase of the possibility to obtain additional benefits due to the knowledge and resources transfer between different departments (2008). At the same time, companies can change and develop the conditions under which they operate. On the example of the company Lassila & Tikanoja it will be shown, how the business-model is changing under conditions, which it face while entering the foreign market.

Case of the company Lassila & Tikanoja

Lassila & Tikanoja (L&T) is the Finnish public service company, which is specializing on environmental management, support of property and offices and industrial services. The main goal of the company is to transform the consumer society into an efficient recycling society. Moreover it produces the commodities for the environment care (metal boxes, ashtrays, plastic containers, containers for sand, compost and composting toilets). It has representative offices in Finland, Sweden and Russia and employs 8000 workers. Net sales of the company in 2014 amounted almost 640 million euros. In all of the countries company has 200.000 clients including 70% of corporate customers, 20% of public sector organizations and 10% of households .

Range of services provided by the company differs in countries. For example in Finland there is a widest range, which includes environmental services, renewable energy sources, waste recovery, recycling, property and office support services, industrial services and environmental products. In Sweden company provides such services as cleaning and support services for offices and environmental products. At the same time in Russia the whole company can be divided into three sectors: environmental management and recycling, maintenance of surrounding areas and environmental products (URL: <http://www.lassila-tikanoja.fi/>).

Company was founded in 1905 in Finland, but only in 1989 it entered the market of environmental services by shares purchasing of company Säkkinä Oy. In Russia it entered in 2004. At this time it began to deliver the equipment for the collection, transportation and recycling of waste, including products for the collection of waste

in the cottages and suburban areas (URL: <http://www.lassila-tikanoja.fi/>). Company helps its customers to achieve efficiency in 3 components: materials, energy and costs (URL: <http://www.lassila-tikanoja.fi/>). Materials efficiency is achieved by building more efficient production chain in terms of resource use and pollution. Energy efficiency is based on a more efficient system through the optimal use of buildings and other property. Costs efficiency can be achieved by the implementation of the energy, material and labor resources control system.

DIFFERENCES BETWEEN BUSINESS MODELS OF THE COMPANY ON FINNISH AND RUSSIAN MARKETS

After the analysis of internal and external environments of the company in Finnish and Russian markets, the business model canvas, which is proposed by A. Osterwalder, were build for both markets. They are provided in Exhibit 1 (for Finnish market) and Exhibit 2 (for Russian market).

Exhibit 1: Business model canvas of company Lassila & Tikanoja for Finnish market

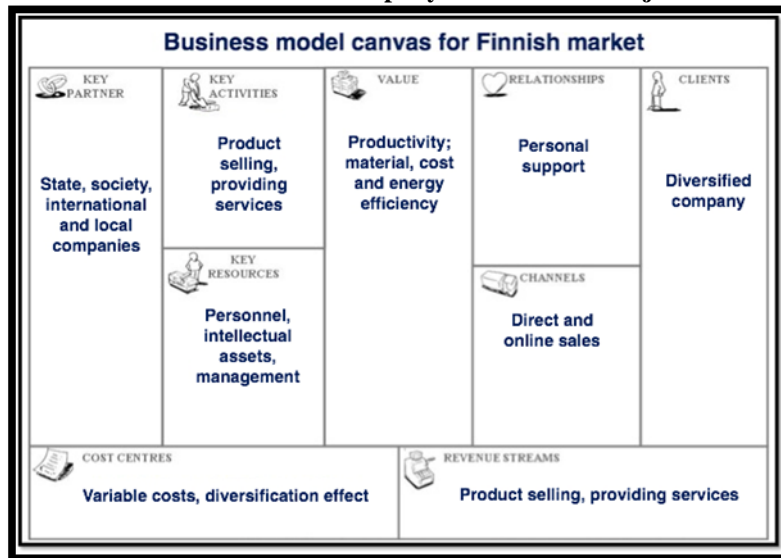
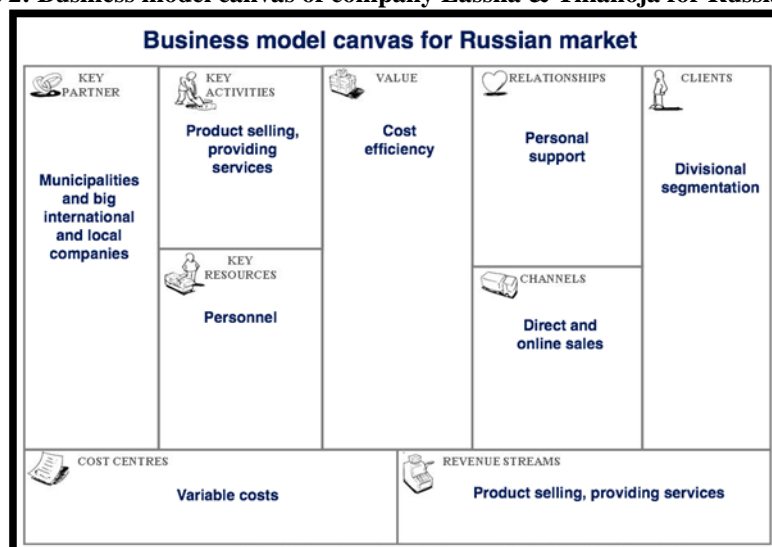


Exhibit 2: Business model canvas of company Lassila & Tikanoja for Russian market



As it is seen, in Finnish market company L&T is a diversified enterprise, which has several unrelated businesses: environmental services, renewable energy sources, waste recovery, recycling, property and office support services, industrial services and environmental products. It means that company has clients from all of these spheres. At the same time on Russian market, the company uses a fractional segmentation, because it is operating only on several markets.

The main value for its customers in Finland, which is offered by the company, concerns to an increase of clients' productivity through better management of costs, electricity and materials. On the Russian market company had to discard from its' main purpose, because it can not find the costumers that will use the whole effective system. Due to this the main value for the customers is to reduce their costs. In Finland company uses only two sales channels: direct sales and sales through the online store. However, the online shopping is not the key channel, because the most of the sales are through direct sales. The same situation is in Russia. Company uses direct sales and sales through the online store. Key sales channel is direct sales as well.

One of the main objectives is to support the relationships with customer. Therefore, the company is constantly developing the system of interaction with customers and improving service level. Moreover, even one of the key success factors of the company considers customer orientation. This ensures that all orders are carried out individually and all the wishes of customers are taken into account. Just as in the Finnish market one of the main goals of the company is to support customer relationships. That is why company improves the level of service, uses the consumer experience and develops the system of interaction with customers. This ensures that all orders are carried out individually and take into account all the wishes of customers. The main revenue streams on both markets are concerned to the products selling and providing different services. However, on the Finnish market most of the revenue company receives from the sale of services. In the Russian market there is the same situation, except the fact that the proportion of products selling in sales is smaller in Russian market. The company has several key resources in Finnish market: personnel, intellectual resources and management. Company sees personnel as one of the strategic directions, which includes personnel management, continuous improvement of the staff planning, automation manual processes, etc. Secondly the key recourses of the company include intellectual resources, because it is trying to build very effective operating model (improve internal information system, develop the operational model, etc.). Third, the key resources of the company include management. In 2014 the company accepted a program of leadership development as a strategic vector that main goal was to accelerate the implementation of the strategy and to strengthen the management skills. A key resource in the Russian market for the company is only staff, because company has special programs for developing its personnel. However it can not use the intellectual resources, because the customers do not use all the system of the company. At the same time company still does not have the leadership development program for Russian managers.

In the Finnish market the main activity of the company is to provide environmental services. In that way company is a leader in the markets of environmental protection and the provision of industrial services. In a lesser degree the company produces commodities for environmental management, such as metal boxes, ashtrays, plastic containers, containers for sand, compost and composting toilets. On the Russian market the company's customers are also interested in the services offered by the company, but to a lesser extent than in the Finnish market. Products' selling is important for the company as well. The key partners of the company are the state, society and international and local companies in Finland, which strongly support the company in its goal to transform a consumer society into an efficient recycling society. On the Russian market, the main partners are the municipalities and large international and Russian companies (such as Mars, Danone, Kraft Foods, Philipp Morris, Sony, logistics complexes "Northern Domodedovo" and "Pushkin", Alpha-Bank, Embassy of USA, shopping center Auchan, and others). The main cost center of the company in Finnish market is variable costs, which depend on the volume of supplied services and on the specificity of orders. Moreover company uses a diversification effect, because it has a huge amount of departments that reduces overall risk of the company. Almost the same situation is in the Russian market: the main costs center is variable costs, which depend on the volume of supplied services. But company does not have the diversification effect, because it does not have enough businesses for this.

FINDINGS

As it is seen on the Exhibit 1 and Exhibit 2 only four blocks of the business models has the same content. These blocks include the unit "distribution channels", because in Russia and in Finland company provides its products and services by direct or Internet sales, unit "customer relationships", as all the services offered are personalized and the company always takes into account the wishes of clients, unit "key activities", because in both markets company provides services and produces commodities, and unit "revenue streams", as the company in Russian and Finnish markets receives all of the money from product selling and providing services. Due to the differences in the environment and markets peculiarities, all other units in canvas are different. The key partners in the Finnish market for the company are the state, society, and international and local companies, whereas in Russia the main partners are municipalities and large companies. The structure of costs has also changed. In the Finnish market the company successfully uses diversification effect, and most of its costs related to the variable costs, whereas in the Russian market most of the costs are variable costs as well, but it does not have the diversification effect, because it has less businesses.

Regarding to key resources in the Finnish market company has intellectual resources, personnel and management, while in the Russian market management and intellectual resources are not fully utilized due to the fact that the company had to move away from the standard model of its operating. That is why the value proposed by the company has also changed. For customers in the Finnish market the main value is development of productive system, which uses resources, energy and costs efficiently. In the Russian market the main value for customers is only cost effectiveness. Concerning customer segments in Finland, company has a large number of businesses in different markets, which suggests that the company is diversified. At the same time in Russia, company has a fractional segmentation, as most of the Finnish businesses in Russia are not represented.

CONCLUSION

For the last years external factors became instrumental in shaping business models. To cross the borders of local market is very important to reveal the peculiarities of the new market and take them into account, when shaping the strategy and business model. On the example of company Lassila & Tikanoja it was shown that entering a new market may lead to major changes. After analysis of external environments the business models of the company for Finnish and Russian markets were built. It was found that in model canvas, which is proposed by A. Osterwalder, only four units are the same on both markets, while five more units were changed in crucial way. It was also found that company had to discard from its' main purpose to operate on the Russian market.

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THE ROLE OF INTERNATIONAL TECHNOLOGICAL ALLIANCE PORTFOLIOS OF FIRMS IN THE NUCLEAR SECTOR IN THE FACE OF SOCIO-ECONOMIC CHALLENGES: THE CASE OF INB - INDÚSTRIAS NUCLEARES DO BRASIL

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ABSTRACT

The global nuclear industry is facing increasing challenges, especially after the Fukushima disaster. This article presents research results that attempted to answer the following question: Does the international alliance portfolio - IAP of Indústrias Nucleares do Brasil contribute to mitigating the challenges it faces as a firm in the nuclear sector of an emerging country? The study reveals that the firm's IAP mitigates socio-economic challenges, due to joint innovations with foreign partners that enhance product and process security. It also suggests that the IAP benefits foreign partners by ensuring clients for their products outside their less receptive traditional markets.

Keywords: International alliance portfolios; alliance networks; innovation; nuclear sector; Brazil

INTRODUCTION

Most countries in the world have been increasingly concerned about the use of nuclear energy, especially after the accidents at Chernobyl in Russia (1986) and Three Mile Island in the United States (1979), and more recently the Fukushima Daiichi disaster in Japan (2011) which had serious environmental, economic and safety implications for the population of these cities and surroundings.

The Fukushima tragedy greatly increased people's distrust of using nuclear power for electricity generation almost all over the world. According to Veiga (2011), the immediate political implications of such increased aversion, especially in the German case where the percentage of those opposed to nuclear power plants rose from 64% to 72%, are reinforcing the most skeptical predictions about this industry's future. Prospects of significant nuclear expansion were indeed severely jeopardized following the accident at Three Mile Island (Pennsylvania, USA, 1979), and even more after the Chernobyl disaster (Ukraine, USSR, 1986), although during the 25 years leading up to the Fukushima meltdown, this had seemed to be changing.

The Fukushima accident, because it is the most recent one with the greatest negative consequences, had a particularly severe impact on the nuclear-energy production market causing heavy losses for firms in this sector. As Myhrvold (2011) noted, this accident has become the new endurance test for the global nuclear industry. In Germany, despite the fact that this country is not prone to tsunamis, the government decided to immediately disable seven reactors and disable the remainder until 2022. However, it is unclear whether this policy will be maintained; a decade ago, the country had decided to get rid of nuclear power altogether, but the planned phase-out never occurred (Myhrvold, 2011).

As mentioned by Bigot (2013, p. 109)

“ The countries which needed to use nuclear energy to benefit from a sustainable energy mix before Fukushima still need to use nuclear energy after Fukushima, whether they make energy savings, they increase their energy efficiency or develop the use of renewable energies. The continuation of massive use of fossil fuels is not a viable solution. Fukushima just enhanced the absolute requirement of the highest nuclear safety standards able to face even extreme natural or manmade conditions.”

At issue are especially fast growing, emerging countries, where governments are not ready to subsidize alternative renewable types of energy for electricity generation which, in any case, would not yet be sufficient to meet their increasing demands for electricity. As Myhrvold (2011) pointed out, after Fukushima, some of these countries actually stepped up the construction of nuclear plants, observing that even if the antinuclear thesis prevailed in Europe, North America and Japan, the nuclear sector would still expand in emerging countries. This explains why in many of these countries, including Brazil, the one focused on in this article, investment plans regarding nuclear plants were maintained. In the case of Brazil this decision was taken in spite of the fears associated with the fact that its nuclear reactors which operate in Angra dos Reis, Rio de Janeiro State are, like Fukushima's, in a coastal region. However, the construction and safety standards of these reactors are technically different from those at the Japanese plant.

Typically, these investments have involved international alliances that oblige the company to attend to stakeholders of different countries. This reinforces the importance of a study on the nuclear sector in an emerging economy, especially in Brazil which is the largest country in Latin America and the 7th most important in the world in terms of GDP (<http://pt.knoema.com/nwnfkne/world-gdp-ranking-2014-data-and-charts>).

In Brazil firms in the nuclear sector have formed technological alliances with foreign companies to, for example, produce the fuel elements used in their nuclear power plants. This is the case, notably of INB – Indústrias Nucleares do Brasil, the firm that is responsible for the production of all Brazil's nuclear fuel.

To produce the fuel elements used in Brazil's nuclear power plants, Angra I and Angra II, INB established strategic alliances with Westinghouse LLC, from the United States and with SIEMENS KWU of Germany. Currently, INB also has an alliance with Areva of France, which acquired SIEMENS in 2009, as well as alliances with KEPCO, formerly known as KNF - Korean Nuclear Fuel, from South Korea.

This article presents results of research that focused on INB's portfolio of international alliances - IAP with a view to answering the following question, in the light of the post Fukushima scenario: Does INB's IAP contribute to mitigating the challenges the company faces, as a firm operating in the nuclear sector, while exploiting the latter's structural opportunities and attending to its stakeholders, including foreign partners, and if so, how?

In addition to providing new insights for firms, such as INB, in the nuclear sector of emerging countries, and which form international alliances, our analysis also aimed at revealing/highlighting the importance for managers of firms in this sector of adopting a relational perspective (Dyer & Singh, 1998) i.e. pertinent to relationships, such as alliances, in their strategic planning and decision-making. We believe, moreover, that this article can contribute to academics, considering that in the scope of our literature review we found hardly any publications in the fields of business administration and strategic management on the strategic implications of international alliances of firms in the nuclear industry.

It is important to clarify that when we chose to investigate INB's IAP, we focused on the international alliances with suppliers and customers within the Brazilian nuclear industry value chain, more specifically, nuclear fuel and components for nuclear power generation at the production unit of INB's Fuel Element. As to its time-frame, the study covered the period from 2001 to 2014, because of its importance in terms of the establishment and renewal of the firm's international strategic alliances.

The remaining four sections of this article are as follows: i) research methods; ii) theoretical references; iii) results; iv) discussion and concluding remarks.

RESEARCH METHODS

We adopted the case-study method for carrying out our investigation, since it is considered appropriate for research into a contemporary phenomenon that requires an in-depth analysis within its real life context to be fully appreciated (Yin, 1989), as well as for providing important lessons for practitioners. This was indeed one of our objectives. It is also recommended as a method for theory building (Eisenhardt, 1989), which was the case of one of our other objectives, as already mentioned: to confirm the importance of the relational perspective in strategic management in the nuclear sector. The main criticism of this method – impossibility of statistically generalizing data from the case of one firm, or sector, to other cases - did not apply, as this was not the purpose of our study.

In keeping with the principle of data triangulation advocated by proponents of the case-study method (Eisenhardt, 1989; Yin, 1989), data was collected from various sources and by different means, and compared when applicable, so as to ensure information consistency, reduce biases and mitigate methodological limitations. Specifically, data and information were collected through i) a documental/telematics investigation; ii) questionnaires and iii) interviews. Out of the structured (Likert 1 -5 point, format) questionnaires that were sent to 47 executives in the commercial, engineering, quality and production areas of the company's Nuclear Fuel Fabrication Unit in Resende, RJ, Brazil, we received 32 valid replies. Follow-up interviews with seven of these executives as well as with three members of the Board of the company were carried out to deepen our understanding of certain more complex points that arose when analyzing the consolidated data obtained from the questionnaires.

THEORETICAL REFERENCES

First it is important to clarify what definitions and which typologies were adopted in the study at issue in this article for the central concepts of alliances, strategic alliances, alliance portfolio and portfolio of international alliances, and what were the research's main assumptions.

Alliances were defined in accordance with Gulati (1998) as voluntary arrangements among two or more independent firms, involving exchange, sharing or joint development or provision of technologies, products or services. Drawing on Nohria and Garcia-Pont (1991), as well as Contractor and Lorange (1988), we used a typology of linkages based on the degree of relationship intensity. Linkages were classified running the following gamut: mergers & acquisitions — M&A (most intense), independent joint ventures, cross equity ownership, minority equity investment, joint Research and Development — R & D, production, or marketing, franchise alliances, know-how or patent licensing, agreements, e.g. co-manufacturing or co-supply (less intense). Apart from M&A, the others were considered to be alliances when they met Gulati's (1998) definition. This typology is important in that Contractor and Lorange (1988) suggested that there is a relationship between alliance intensity and its strategic impact. Alliances are strategic when they contribute directly to a firm's competitive advantage (Macedo-Soares, 2011).

As to alliance portfolio – AP, in keeping with social network theory (e.g. Ahuja, 2000; Baum et al., 2000; Ozcan & Eisenhardt, 2009) and Macedo-Soares (2014), it was defined “as an ego-centric network, i.e. the network formed by the focal firm, its direct ties to partners and its indirect ties, i.e. between partners”. Although the focus is on the ego-net, in accordance with Macedo-Soares (2014), not only second-tier ties (i.e. partners' ties to their partners) are considered when strategically relevant, but also the focal firm's value net – partners, other strategic actors and their interdependencies (Brandenburger & Nalebuff, 1996).

Ozcan & Eisenhardt (2009) emphasize the fact that APs are theoretically important in that they have “aggregate properties, such as tie diversity and mix of tie strengths that influence performance (Uzzi, 1997)”, but are not significant for individual alliances. An international AP - IAP is a portfolio that includes alliances with foreign partners.

Doz and Hamel (1998, p. 2) observed that strategic alliances are essential in the new competitive

environment and the “race for the future among the world’s fleetest competitors”. In this race, alliances have at least the three following purposes that Lasserre (2003) considered to be three types of international alliances: 1. *Co-option* — transformation of potential rivals into allies and providers of the complementary goods/services for developing new businesses; 2) *Co-specialization* — partners with unique and differentiated resources contribute to synergistic value creation; 3) *Learning and Internalization* — learning of new skills through the alliance.

Consistent with most researchers in this area, García-Canal et al. (2002) viewed firms’ international alliances as a means of obtaining access to new markets and boosting their international competitiveness by using partner resources. They proposed a typology of international alliances according to their geographic scope - local versus global - and orientation - exploration (e.g. multinational company - MNC explores new ways of improving its competencies through the alliance) versus exploitation (e.g. MNC exploits its proprietary assets in the foreign market through local or global partners).

Regarding the theoretical basis for our analysis of the strategic implications of INB’s IAP, we adopted the relational perspective (Dyer & Singh, 1998; Gulati, 1998; Koza & Lewin, 1998) that argues that “critical resources and value creation activities span the boundary of the firm and may be embedded in its interfirm relationships (e.g., strategic alliances)” (George et al., 2001, p. 206).

Consistent with our definition of AP, we also drew on social network theory, notably, the key network dimensions and constructs proposed by Galaskiewicz and Zaheer (1999) and Gulati et al. (2000), and that formed the initial basis of Macedo-Soares’s Global SNA Framework (2011) and one of its variations, the Strategic Network Analysis – Innovation Framework - SNA-IF (2014), that were the main analytical tools used in the INB study. In keeping with Gulati et al. (2000) it was assumed that the IAP had positive or negative implications, for example, presenting opportunities or challenges, depending on its IAP/network characteristics in terms of structure, composition, linkage modalities, and alliance/network management processes. The SNA Frameworks have three components: i) Methodology or steps to carry out the analyses; ii) Reference Lists of relevant constructs for each one of the IAP/network characteristics; iii) Model to map the focal firm’s IAP within its value net (Brandenburger & Nalebuff, 1996).

For the INB study, we selected some of the recommended steps in the SNA methodology to carry out our analysis of the strategic implications of INB’s IAP. We also selected a few of the constructs for two - IAP/Network composition and IAP/Network Linkage Modalities - of the four IAP/Network dimensions contemplated in the SNA-IF. When we present the study’s results we mention what was selected.

RESEARCH RESULTS

GENERAL DATA -NUCLEAR SECTOR

It is noteworthy that 435 nuclear power reactors are currently still in operation in 31 countries (CNN Library, 2014), whereas before Fukushima there were 442 (merely 7 more), in 30 countries. Although many governments started reviewing their energy policies, “not all countries got scared”; this is apparently the case of France which has the world’s greatest share of nuclear power devoted to electricity production, and of the U.S., the world’s biggest producer (Kottasova, 2014, p.1). In France 70% of its electricity still comes from its 58 operating units and the U.S. has four reactors at two sites (Vogtle and Summer) under construction plus the second unit at Watts Bar that is being completed (Kidd, 2014).

On the other hand, as an executive at Exelon, the largest US nuclear operator, observed “several of its plants are now very vulnerable to cheaper gas and subsidised renewables”. Also, in France, where a post Fukushima plan to cut the nuclear share of electricity to 50% is still being debated, “renewables in an increasingly integrated European power grid have the potential to constrain the economics of nuclear” (Kidd, ibidem).

Worldwide, however, there are 72 nuclear power reactors under construction (CNN Library, 2014) with the expansion of nuclear energy shifting clearly towards emerging countries, especially in Asia. China has plans

to add about 40 GWe (Electric Giga Watt) by 2020 and as Kidd (2014) also noted, “with growth in other major countries such as Korea, India and Russia ... more than offsetting closures in Germany and other countries, world nuclear generating capacity should still grow by 2 -3 % per year to 2030.”

Even in Japan, on July 1st, 2013, Kansai Electric Power Co. Ltd. (KEPCO) restarted the Ohi (in Fukui prefecture) nuclear plant's No. 3 reactor, resuming nuclear power production in Japan for the first time after the Fukushima meltdown (CNN Library, 2014) and in February 2014 Japan “unveiled plans to re-start dozens of nuclear reactors that were shut down” after Fukushima, allegedly for political and economic reasons (Mail Online, 2014).

In Brazil, in the wake of the Fukushima disaster, the federal government invested U.S.\$160 million in safety improvements at its two operating reactors (Gonçalves, 2012). As elsewhere, activities in this sector slowed down considerably. Notably, the construction of new power plants was delayed. With respect to the latter, it is important to mention that nuclear reactors take years to be built and quite some time to become operational; they also require huge investments and any delay greatly increases the costs involved.

To appreciate fully the results of our analysis of the strategic implications of INB's IAP at industry level, it is important to give some background information on the nuclear energy sector in Brazil, including the history of its development since the first efforts to develop nuclear technology that go back to 1954 (CNN Library, 2014).

In 1955 Brazil and the US signed an Agreement for Cooperation in Peaceful Uses of Atomic Energy, according to which Brazil would buy US reactors based on enriched uranium technology for its research laboratories in Rio de Janeiro, São Paulo and Belo Horizonte. Within the scope of this agreement Brazil bought a reactor from Westinghouse Electric Corp. in 1971 to be installed in its first nuclear plant, Angra 1. However, a series of factors, notably the oil crisis, in 1973, and especially the sudden decision by the US in 1974 to suspend the supply of enriched uranium for new nuclear plants in Brazil, prompted the Brazilian government to rethink its nuclear policy and agreement with the US.

This led to a partnership with Germany in 1978 for the joint manufacturing of nuclear reactor components and fuel and did not exclude the development of enriched uranium technology in Brazil. Siemens KVV was the company chosen to operationalize this alliance. So as to mitigate worldwide concerns and criticisms regarding the risks of producing nuclear reactors in Brazil, an agreement was signed between Brazil, Germany and the International Agency of Atomic Energy – IAEA, in 1976. The international community was concerned that Brazil might use its nuclear energy program technology for military purposes, namely to produce ballistic missiles (Gordon, 1989). However, when the relative power of the military declined in the early 1990s, Brazil gave up its ballistic missile program and its interest in nuclear weapons (NTI, 2014). This lasted up to December of 2008 when President Luiz Inácio Lula da Silva launched a New Defense Strategy, calling for strategic nuclear developments that included the building of a nuclear submarine. This strategy sought to achieve national independence and international prominence in strategic sectors, such as space, cybernetics and nuclear affairs (Diehl & Fujii, 2009). Although an agreement has been signed with France for the construction of a nuclear submarine, allegedly to defend the huge oil and natural gas fields that were discovered in 2007 in the pre-salt layer of the country's South Eastern coast, Brazil has, to date, never actually developed nuclear weapons and there is no evidence that it intends to enrich uranium above the 20% level (NTI, 2014).

In spite of strong pressure on the part of several countries, including the US, in 2009 to sign the 1997 Model Additional Protocol, which would allow the IAEA to have greater access to Brazil's nuclear infrastructure, Brazil has not done so up to now (NTI, 2009). Note that, in 1991, Brazil and Argentina formed ABACC, a regional arrangement to monitor nuclear facilities so as to ensure that they are being used solely for peaceful purposes, and that some of the Additional Protocol's provisions are included in the Quadripartite Agreement signed in 1991 by Brazil, Argentina, the ABACC and the IAEA (www.abacc.org).

In Brazil, “nuclear energy accounts for approximately 3% of the country's production of electricity, provided by two operating plants, Angra 1 and Angra 2” (NTI, 2014). When the third plant, Angra 3, currently under construction, albeit with delays, becomes operational, it will account for 4% of Brazil's energy grid (www.electronuclear.gov.br). The Brazilian government has long-term plans for the construction of four 1,000

MWe (Electric Mega Watt) plants so as to expand nuclear fuel production in order to meet increasing domestic and perhaps also international demand (Salomon, 2010).

INB

Indústrias Nucleares do Brasil is a mixed economy company, affiliated with the Ministry of Science and Technology (www.inb.gov.br) and whose majority shareholder is the Brazilian Government. It was established in 1988, succeeding Nuclebrás. It became a single company in 1994 by incorporating its subsidiaries - Nuclebrás Isotopic Enrichment SA (Nuclei), Uranium SA and Brazil Nuclemon Mining-Chemical Ltd. - and absorbing their activities and responsibilities.

According to Article 19 of Law 7.781/89, it is the sole company responsible for implementing the State's monopoly of the exploration of uranium, established in Subsection V of Article 177 of the Brazilian Constitution, from mineral prospecting and exploration, through mining and primary processing, uranium enrichment and fuel fabrication, to marketing and placement of fuel in what are called Fuel Elements - FEs, that trigger national nuclear reactors to generate electricity. It operates mining sites with reserves of approximately 1.1 million tons. The Nuclear Fuel Factory in Resende, RJ State, which it likewise operates, is an industrial complex that includes factories and laboratories for re-conversion, uranium enrichment, fabrication of uranium pellets and fuel element manufacturing.

The results of our study are presented in accordance with the steps of the SNA Methodology that were selected for the strategic analysis of INB's IAP, starting with the characterization of the firm's strategy.

INB's Strategy – Step 1

On the basis, mainly, of our documental investigation, it became clear that INB follows a strategy of differentiation in terms of low prices, according to Mintzberg's (1988) typology. It thus seeks to align itself with the focus on financial sustainability that characterizes the nuclear industry's current strategic cycle worldwide. However, as in the case of most nuclear energy firms, quality, safety and the environment are also priorities. The company has been certified according to the following standards: ISO 9001 - Quality Management; ISO 14001 - Environmental Management; OHSAS 18001 - Safety Management & Occupational Health (www.cnen.gov.br; www.inb.gov.br). In accordance with its constitutional mission to meet the demand for nuclear fuel from the country's nucleo-electric power plants, and to increase the country's participation, on an industrial scale, in the nuclear fuel production cycle, INB is making the investments necessary for the structural expansion of its production capacity. Although the company has the necessary competencies to carry out all the activities involved in the nuclear fuel cycle, and in February 2012 inaugurated the first module of its pilot uranium hexafluor (UF₆) unit (USEXA) (Marinha em Revista, 2014) whose objective is to enable Brazil to produce nuclear fuel on an industrial scale, it is, as yet, not capable of doing so (NTI, 2014) and depends on foreign suppliers.

This is obviously one of the main reasons why the company took a strategic decision to internationalize. However, its internationalization strategy goes beyond that of ensuring foreign suppliers. It includes exporting nuclear fuel components and technological alliances.

As to the strategy's scope, our investigation provided the following information, in accordance with Fahey and Randall's (1998) constructs: i) *Product*: nuclear fuel for the generation of nucleo-electric power; ii) *Customer*: mainly Eletrobrás Termonuclear – ELETRONUCLEAR to whom it sells all the components of the nuclear fuel cycle. The other customers include two of its supplier-partners, Westinghouse and KEPCO, that acquire some of INB's nuclear fuel components, e.g. bottom and top nozzles, to sell to customers in their home countries as well as to foreign ones, such as in China, and potential customers with whom Brazil is negotiating directly, especially in Asia (for example China) (NTI, 2014); iii) *Geographic scope*: as yet predominantly domestic: Uranium mining plant in Caetité/BA; two Nuclear plants in operation – Angra 1 and Angra 2 and one, Angra 3, under construction in Angra dos Reis, Rio de Janeiro State; three Nuclear Fuel Production Units and one Uranium Enrichment Unit in Resende/RJ; international scope provided by international partners that are also customers;

iv) *Vertical scope*: production of nuclear fuel for electricity generation; v) *Stakeholders*: ELETRONUCLEAR, the Brazilian government, and Furnas Centrais Elétricas S.A., INB's majority shareholder customer (www.electronuclear.gov.br). Other stakeholders are the state and municipal governments in whose nuclear strategic projects INB participates, the suppliers of local and international equipment and technology, partners, employees, and society as a whole.

Identifying Strategic Implications – Opportunities and Challenges - of Industry Structural Factors – Step 2

On the basis of our documental investigation, mainly company's management reports for 2011 and 2014 (www.inb.gov.br), as well as the follow-up interviews with members of the company's Board, it became apparent that, although INB had guaranteed demand for its products with refills for Angra 1 and 2 plants, and an increase in demand when Angra 3 becomes operational, the sector's current medium and long term economic scenario were rife with uncertainty. This was attributed largely to the lack of definition of the Brazilian Nuclear program, especially in the wake of the Fukushima accident. The following observations of an executive of the company express this perception eloquently:

"The accident at Fukushima frustrated our expectations a bit regarding the construction of other plants planned by the federal government, namely plants along the Northeastern coastline, which could promote greater autonomy (for this region) and step up demand for nuclear fuel production. For the time being, the federal government will only give continuity to the works of the Angra 3 Plant, which are already underway, albeit with some delay".

As to the other relevant political and economic factors identified in the documental investigation (www.inb.gov.br) and analyzed with the help of Austin's (1990) constructs, we found that they created more potential opportunities than threats, the most important of which are listed below:

- i) Firmly established demand on the part of three guaranteed nuclear plants – Angra 1 and Angra 2, as well as Angra 3 when finished and operational, because of the uranium processing monopoly;
- ii) National uranium reserves ready for extraction;
- iii) Favourable regulatory conditions for exporting U3O8 (Uranium Oxide) surplus, as well as high value-added services;
- iv) Growth in demand for clean energy, allowing the resumption of growth in domestic and international nuclear energy supply.

As to socio-environmental factors, our study, unsurprisingly, verified heightened distrust of nuclear energy on the part of the local civil population in the wake of Fukushima, constituting the most significant real threat for firms such as INB. Indeed, in Brazil, according to the study presented by Veiga (2011) the percentage of those who declared that they were opposed to nuclear power plants rose from 49% to 54% after Fukushima. Nuclear energy is a clean form of energy, and statistics have shown that mortality rates worldwide associated with nuclear disasters are significantly lower than in car and airplane accidents. Over more than 70 years (1945 - 2007) 32 nuclear disasters killed only 93 people – on average one third of the percentage killed in plane crashes, although one also has to consider the increase in cancer patients as a consequence of radioactive fallout associated with nuclear accidents. However, in Chernobyl, for example, only 4% of cancer cases were attributed to the accident (Veiga, 2011). Nevertheless fears regarding the possible risks of nuclear energy use, obviously also prevail in Brazil, even more so given that many people in this country tend to confuse these risks with those deriving from the use of nuclear weapons.

With respect to the challenges and opportunities created by key actors (apart from partners), according to Porter's (1980) constructs, the information collected from the documental investigation suggested that new entrants were not a potential threat, not only because of the high entry barriers in this industry due to the huge capital and technological investments involved, but especially because the Brazilian government gave a monopoly on nuclear energy exploration and production to INB. Moreover, international entities, such as the AIEA, have very rigorous standards for regulating nuclear activities in the world, making it difficult for firms to enter into this sector.

As to customers, INB's main customer, ELETRONUCLEAR, a limited liability, mixed economy firm and subsidiary of Centrais Elétricas Brasileiras S.A. – ELETROBRÁS, could theoretically be considered a real threat as it accounts for approximately 85% of INB's sales. It was created in 1997 to operate and build Brazil's thermonuclear power plants, with its sole customer being Furnas Centrais Elétricas S.A. which distributes the electricity (www.electronuclear.gov.br). It is thus one of the most influential actors in the Brazilian nuclear industry with huge bargaining and negotiating power (Macedo-Soares et al. 2009).

However, this threat is totally neutralized by the fact that it depends entirely on INB for the supply of nuclear fuel components. The other customers are Westinghouse and KEPCO that acquire some of INB's nuclear fuel components, e.g. bottom and top nozzles, to sell to customers in their home countries and abroad. They were found to have moderate bargaining power because they are also its suppliers as well as its partners. Potentially, INB has some customers, especially in Asia, for example China (NTI, Feb 2014), with whom Brazil is negotiating directly, whose bargaining power is as yet difficult to assess.

Regarding the firm's suppliers that are not partners, the study highlighted the following two foreign companies that provide services related to uranium enrichment: CAMECO, a Canadian firm, for the conversion of yellowcake (a uranium concentrate containing around 80% uranium oxide used in the preparation of nuclear fuel) into UF₆ gas, and URENCO (a consortium consisting of the UK, Germany and the Netherlands) for uranium enrichment (NTI, Feb. 2014). Indeed, their bargaining power was found to be very high, because they detain the necessary technology for nuclear reactors on an industrial scale, constituting the largest real threat for INB in this industry.

Substitutes were considered to pose merely a potential threat. As elsewhere, in Brazil there has been substantial pressure from several parties to replace nuclear-power generation with alternative forms of clean energy such as wind, solar and biomass, all the more so that in some areas in the country, electricity generating plants have been using these alternatives, in spite of the fact that the nuclear sector has had good results for the National Electric System. However, as yet, they are neither sufficient nor cost effective.

Regarding rivals, the fact that INB has a monopoly on the exploration and production of nuclear fuel in Brazil, obviously neutralizes rivalry. However, at any moment, the federal government could end this monopoly and INB's current suppliers could become its potential rivals.

International Strategic Alliances in the portfolio– Step 3

Currently, INB has a portfolio of six strategic international alliances (INB, 2013).

- 1) An alliance established in 1985 with Westinghouse Electric Corp. from the US for its first nuclear energy plant, Angra 1;
- 2) An alliance established in 1998 with the South Korean firm, KNF (currently known as KEPCO);
- 3) An alliance with the French company, Areva. When Areva acquired Siemens KVV in 2009, this alliance replaced the one that INB had established in 1978 with Siemens for its second nuclear energy plant, Angra 2;
- 4) A multiple partner R & D alliance formed in 2012 with both Westinghouse and KEPCO;
- 5) An R & D alliance with Areva established in 2013;
- 6) An R & D alliance with Westinghouse in 2013.

On the basis of the perceptions of INB's executives, all these alliances can be considered strategic in that they were all strategic initiatives, the main purpose of which was to attend better to INB's stakeholders by developing and producing safer and higher quality nuclear fuel. The great majority (87%) of the respondents to our questionnaire emphasized the importance of these alliances not only for the firm's internationalization process but also for meeting the demands of the domestic market.

When asked whether the "international alliances were crucial for INB's internationalization" the following reply by one of the executives echoed what most interviewees had said:

"INB not only depends on these alliances to internationalize, but also for its maintenance in the domestic market, since most of the components and raw materials for nuclear fuel are provided by these (foreign) partner companies."

Five of the six international alliances in the portfolio are bilateral - only the one established in 2012 involving both Westinghouse and KEPCO is multilateral - and the role of the foreign partners is mainly that of suppliers, which makes them co-supply alliances according to Contractor & Lorange's (1988) typology. At the same time, they must be classified as technological, R & D alliances, for the joint development of nuclear fuel products for electricity generation. According to the respondents to the questionnaires, the determining factor for establishing these international alliances was to share complementary resources and competencies, characterizing them as "Co-specialization" and "Learning and Internalization" alliance types, in keeping with Doz & Hamel's (1998) typology.

Four out of the six alliances in the IAP were characterized as exploitative, incremental innovation alliances, in that their objective was to develop more sophisticated materials for nuclear fuel. Only two were considered explorative, radical innovation alliances: i) the one established with KNF (now KEPCO) in 1998 for the development of new technologically differentiated top nozzles for nuclear fuel; ii) the multiple partner alliance in 2012 with Westinghouse and KEPCO for the research and development of a new generation of nuclear fuel components for Angra 1.

Although as suppliers all these three international partners theoretically have huge bargaining power because INB depends enormously on them for most of the components and raw materials for the nuclear fuel cycle, this power is mitigated significantly by the fact that they are also partners in a win-win relationship.

Indeed, through these partners, INB and these firms can both sell their jointly developed products to customers beyond their traditional less receptive markets.

An INB executive highlighted the role of international partners as a solution to the problems faced by the firm in the post Fukushima scenario when he said:

"I believe that the solution is the production and sale of nuclear fuel components to our international partners, mainly to South Korea".

In fact, as mentioned earlier, two of these supplier-partners, Westinghouse and KEPCO, are also INB's customers, in that they acquire some of its nuclear fuel components, e.g. bottom and top nozzles, to sell to customers in their home countries as well as to foreign ones, such as in China. Indirectly, INB, in this way thus also has access to new markets.

However, if INB eventually loses its monopoly on the exploration of uranium, these supplier-partners, as well as the non-partner suppliers could become its rivals. This could also be the case if and when an alliance ends. Then the current foreign partner that has an R & D alliance with INB could produce the nuclear fuel components on its own and sell them directly to INB's customers. But, since this is not bound to happen simultaneously with all three alliances in the portfolio, the latter mitigates the potential threat from the opportunistic streak in the supplier alliances.

Meanwhile, the foreign partners are providing technology for the joint development of products with much higher security standards, thus attending to the environmental stakeholder. A case in point is INB's recent (2013) R & D exploitative alliances with, respectively, Westinghouse and Areva as mentioned by two of the firm's executives.

"After the Fukushima accident, INB's engineers together with Westinghouse's engineers, that provided access to data regarding the problem that occurred as a result of the earthquake followed by tsunami, were able to perfect a "computer code" (simulation software and specific nuclear calculations) to make tests in nuclear reactor components. Consequently, any change in the project of the nuclear fuel components is being tested and needs approval by both the project managers and the customers before being used in the reactors. This was only possible because of the alliance between INB and Westinghouse. Security of nucleo-electric energy use and operation has always been a priority for INB and Westinghouse, but to be able to make improvements and even an innovation in this sector has only been possible because of this alliance."

“We have recently been invited, both by Westinghouse and Areva to be part of a project to develop new types of fuel for small size nuclear reactors (around 1000W energy generation potency), that besides being an innovation for the nuclear sector, is also safer to operate and is ideal in terms of being able to install it in any part of the planet with a much lower maintenance cost than that of conventional nuclear reactors.”

Several executives and members of INB’s board also mentioned the relatively recent (2012) multiple partner technological explorative alliance between INB, Westinghouse and KEPCO, for the joint research and development of a new generation of nuclear fuel components for Angra 1 type plants, and which involves Brazilian, American and Korean engineers, respectively from these three companies. This joint initiative is particularly important in that it highlights the importance of the synergistic effect of the partners in INB’s international alliance portfolio.

FINAL CONSIDERATIONS

It would be ideal if one could measure the performance of the international alliances in the firm’s IAP, in terms of the extent to which they add value for the different stakeholders involved. As observed by one of INB’s executives:

“INB does not have any indicator to measure and evaluate the performance of its international strategic alliances and that could influence its global performance. There are some indicators that consider, for example, the quality of the components supplied by the firms that are part of these alliances. However, such an indicator is only used sporadically and is only assessed when an audit is conducted by the foreign partner”.

Although this is the case, we believe that our study strongly suggested that INB’s portfolio of international alliances has created significant opportunities for joint technological developments with foreign partners that ensure greater safety in nuclear plants and thus mitigate the socio-environmental challenges that companies in the nuclear sector have increasingly been facing after the Fukushima accident.

By the same token, the study confirmed the importance of taking a relational view and alliance portfolio approach, also in firms in the nuclear sector, without which it would not be possible to identify the positive relational implications of the IAP and how these neutralize industry structural threats.

The study obviously had several limitations. Since the nuclear energy sector is highly strategic for the country, sensitive information is not disclosed. This accounted for the fact that we could not capture data on many of the relational constructs of the SNA Global Framework (Macedo-Soares, 2011) and SNA – IF (2014). Moreover, because it is a case study of a company that has a monopoly on the exploration of uranium, it has certain peculiarities, and a lot of what applies to it probably does not in other companies in the nuclear sector.

Nevertheless, by focusing on its IAP and taking a relational and alliance portfolio approach, our study made evident how such a portfolio can leverage the innovation capability of a nuclear energy firm in an emerging country, for the benefit of its main stakeholders. It also showed how an IAP of such a firm can provide access to customers, for the several parties involved, in other emerging countries that have more receptive markets where nuclear energy is concerned.

We recommend future research in an attempt to circumvent some of the limitations mentioned and to confirm our findings, by interviewing INB’s partners to capture their perspective regarding their roles in the IAP. We also recommend that similar investigations into the IAPs of firms in the nuclear energy sector be carried out in other emerging countries, for example, in Asia and other Latin American economies, with a view to comparing results and identifying the influence of institutional factors specific to these countries.

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ABSORPTIVE CAPACITY – A CRITICAL MODERATING FACTOR FOR FIRMS THAT LEVERAGE INNOVATION THROUGH STRATEGIC ALLIANCE PORTFOLIOS? INITIAL RESULTS OF A BIBLIOGRAPHIC AND BIBLIOMETRIC STUDY

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ABSTRACT

This article presents results of a review of the literature in the ISI Web of Science data base published between 2000 and 2015, whose aim was to answer the following question: Is absorptive capacity (AC) a critical moderating factor for firms that leverage innovation through strategic alliance portfolios (APs)? AP management capabilities were found to have a fundamental moderating role in the relationship between APs and innovation, and amongst these capabilities AC was highlighted by several authors. However, its role was found to vary according to AP characteristics, notably AP structure – embeddedness and diversity, and alliance and partner types.

Keywords: Alliance portfolios; innovation; absorptive capacity; emerging countries; bibliographic study

INTRODUCTION

Globalization and the pressure to constantly develop and launch on the market new products and solutions has led to a greater interdependency between firms. Indeed this pressure has driven firms to engage simultaneously in multiple alliances, configuring strategic alliance networks (Ahuja, 2000) or alliance portfolios – APs to leverage innovation (Faems et al., 2005; Duysters & Lokshin, 2011) and thus ensure their competitive advantage.

Cohen and Levinthal (1990) argued that the competency to explore external knowledge, i.e. absorptive capacity – AC, is a critical factor for organizations that intend to innovate. There are literature reviews on AC (eg. Zahra & George, 2002) emphasizing this point. Lane et al. (2006) highlight the fact that AC became one of the most important and most investigated concepts in recent organizational research. They note that between 1990 and 2006, 900 articles were published in scientific journals on the subject. Moré et al. (2014) carried out a bibliometric study, with a 1990-2012 time-frame, and found 1447 articles published in international journals on AC and innovation. Martinez et al. (2012) conducted a bibliometric study on relative AC, in accordance with Lane and Lubatkin (1998) who define it as a “learning dyad-level construct” (p.461), and “argue that the ability of a firm to learn from another firm is jointly determined by the relative characteristics of the student firm and the teacher firm.” These authors, as well as Moré et al. (2014) concluded that there has been a significant increase in the literature on AC. For Lane et al. (2006) this can be attributed in part to the “unique perspective that the construct provides” (p. 833), as well as “overlap with other popular areas of organizational research and practice that were rapidly growing during that same period: organizational learning, strategic alliances, knowledge management, and the resource-based view of the firm” (p.833).

There are also literature reviews on APs (Wassmer, 2010), on knowledge networks, precisely the influence of networks on the creation, diffusion and use of knowledge, at multiple levels of analysis (Phelps et al., 2012), on alliance networks and technological development (Stolwijk et al., 2013) and on international APs and innovation (Macedo-Soares et al., 2015). But there is a lack of bibliographic research on the role of absorptive capacity in the relationship between alliance portfolios and innovation. The purpose of this article is to fill this gap, presenting the initial results of a review of the literature published between January 1, 2000 and January 1 2015, whose aim was to answer the following question: Is absorptive capacity a critical moderating factor for firms that leverage innovation through strategic alliance portfolios?

The remainder of this article is divided into four parts: theoretical references, research methods, results and analysis, discussion and framework for future research.

THEORETICAL REFERENCES

Definitions of central concepts that were adopted in our study are presented below. In accordance with the OECD's Oslo Manual (2005, p.55), innovation was defined as the implementation of a new or significantly improved product (or service) or process, or a new marketing method or a new organizational method. In addition, we distinguished between radical and incremental innovation, also characterized, respectively, as explorative and exploitative innovation (March, 1991). It should be noted that in emerging countries a new form of innovation, called "reverse innovation" has become important. It refers to "innovation (that) is adopted first in poor economies before 'trickling up' to rich countries" (Govindarajan & Ramamurti, 2011, p. 191).

Alliances were defined as voluntary arrangements between firms, involving the exchange, sharing or co-development of products, technologies or services (Gulati, 1998) and were classified according to their intensity (Contractor & Lorange, 1988), running the gamut from joint-ventures (most intense) to agreements and contracts (less intense).

In keeping with social network theory (Ahuja, 2000; Baum et al., 2000; Ozcan & Eisenhardt, 2009) and Macedo-Soares (2014), AP was defined as an ego-centric network (Knoke, 2001), or ego-net for short, i.e. the network formed by the focal firm, its direct ties to partners and its indirect ties, i.e. between partners. For this reason, AP and ego-net were considered synonyms in our study. Although the focus was on the ego-net, second-tier ties (i.e. partners' ties to their partners) were also taken into account when they were strategically important for the focal firm. Moreover, as Macedo-Soares (2014) observed, the AP should be considered in the scope of the firm's value net (Brandenburger & Nalebuff, 1996) which includes all strategic actors - partners and non-partners - and their interdependencies. The expression "AP/network", or AP/net for short was used to make this point and, therefore, literature on focal firms' alliance networks was included in the review.

Wassmer (2010) investigated three research streams that were considered central to APs: (a) emergence of APs; (b) configuration of APs; (c) management of APs. It was relevant for our study on AC that the literature he reviewed suggested that the way a firm configures its AP affects its AC and "therefore its ability to use knowledge accessed from its alliance partners" (p. 158). Referring to George et al. (2001), he highlighted two AP configuration characteristics: alliance structure and knowledge flows between partners in the APs.

In Macedo-Soares's (2014) Strategic Network Analysis Innovation Framework - SNA-IF, for carrying out strategic analyses of firms that establish APs to leverage innovation, four dimensions were proposed: 1) AP/Net Structure (AP size; AP density; AP scope; AP position/centrality; embeddedness; structural holes; AP's configuration of partners/resources in terms of heterogeneity/diversity (functional, geographic, institutional)/complexity); 2) AP/Net Composition (focal firm's identity and status; partners' identity and status; access to firm's innovation resources; access to partners' innovation resources); 3) AP/Net Linkage Modalities (strength; nature – international/local, collaborative/opportunistic, explorative/exploitative); 4) AP/Net Management. The latter included AP Management capabilities, which encompassed absorptive capacity, as well as multiple alliance experience, dynamic capability, coordination, resource and information sharing, and AP/Net performance assessment. On the basis of Macedo-Soares et al.'s (2015) bibliographic study of international APs (IAPs) and innovation, where these dimensions were also used to classify international AP/Net characteristics that influence innovation, IAP management capabilities were found to have a critical moderating role between

IAPs and innovation, especially in the case of high IAP diversity. AC was highlighted by some authors as being a management capability with an important mediating role in this relationship. There were differences however between emerging and developed countries. In the former AC could pose a problem, because of the AP's institutional diversity. Since AC was not the focus of the study, this conclusion prompted us to investigate into the latter's role more deeply and pay special attention to the case of APs that involve partners from emerging economies. Our bibliographic study into AC, APs and innovation is a first step in this investigation.

As to absorptive capacity, we defined it in accordance with Cohen and Levinthal (1990, p. 128) as the "ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends". Indeed, these authors were the ones who proposed the AC concept, observing that it is "critical to (the firm's) innovative capabilities", and suggesting that it is "largely a function of the firm's level of prior related knowledge" (p. 128). They note that an organization's AC depends on that of its individuals and on R & D investments, and argue that firms that want to acquire differentiated knowledge should give priority to increasing their AC. "Unlike "learning-by-doing," which allows firms to get better at what they already do, absorptive capacity allows firms to learn to do something quite different" (Lane et al., 2006, p. 836). Lane et al. (2006) observed, however, that the AC construct has been "reified" (p. 883), i.e. "separated from the network of assumptions and relationships that gave rise to its creation" (p.851). They suggested that this could threaten the validity of studies that use it when they are not built on consistent theoretical bases.

Zahra and George (2002) proposed a reconceptualization of AC as a dynamic capability - DC pertinent to knowledge creation and utilization that increases the firm's ability to achieve competitive advantage. Building on DC theory they distinguish between two types of AC: potential and realized. Potential AC refers to knowledge acquisition and assimilation capabilities, while realized AC refers to knowledge transformation and exploitation capabilities, in other words, the firm's "capacity to leverage the knowledge that has been absorbed" (p. 190). They are complementary, with potential AC also endowing the firm with the strategic flexibility to adapt and thus sustain its competitiveness even in contexts of rapid change, and realized AC being the primary source of performance improvements through product or process innovation.

RESEARCH METHODS

The study was conducted in two stages. In the first one, predominantly bibliometric, we collected general data on the literature about AC, alliances, APs, networks and innovation between January 1, 2000 and January 1, 2015. Although, studies on AC started in 1990 after Cohen and Levinthal's (1990) seminal article on the subject, we chose this time-frame because the publication of articles on AC, alliances and innovation intensified more recently:

(http://apps.webofknowledge.com/Search.do?product=UA&SID=3CX7vskZ7lTyZlF9ToT&search_mode=Refine&prID=93b7e0b7-4ffe-4333-b767-98368a8ca90c); accessed on February 28, 2015).

We adopted the ISI Web of Science, specifically the "Web of Science Core Collection" (Business and Management) because it covers literature in journals with a high impact factor and has been considered one of the most comprehensive publication research data bases (THOMSON REUTERS, 2012) and one of the 10 best ones according to the University of Michigan (<<http://www.lib.umich.edu>). Moreover, it provides a tool to generate the general data we needed as a starting point in our study, such as the number of articles published on the subject, authors that were most cited, journals with most articles and countries where most were published.

We limited ourselves to "peer-reviewed" journals, in the "article" and "review" categories and used the following combination of keywords:

- . "absorptive capacity" and "alliance" and "innovation";
- . "absorptive capacity" and "linkage" and "innovation";
- . "absorptive capacity" and "portfolio" and "alliance" and "innovation";
- . "absorptive capacity" and "portfolio" and "alliance" and network" and "innovation".

We thus obtained 402 articles that constituted our sample. A list of these articles was exported to the Mendeley bibliographic references software and articles in pdf were imported manually.

The second stage of our study was qualitative. It consisted of analyzing not only the abstracts of the 402 articles in our sample, but also those of articles listed in the references of the afore mentioned bibliographic studies on APs, or AP and innovation, or AC, or AC and innovation, with a view to selecting articles that could provide most elements towards our central question: Is absorptive capacity a critical moderating factor for firms that leverage innovation through strategic alliance portfolios? The inclusion of articles from bibliographic references is consistent with one of the methodological suggestions made by Villas et al. (2009). Note that this analysis took into account the first stage's bibliometric findings, notably, the authors that had been most cited and journals with most articles on the subject. We thus first identified 20 relevant articles. However, after a profound analysis of their content, we selected merely 9 (Table 5). Note that several of the other ones were found to be useful for the discussion regarding the findings of these 9 articles.

RESULTS AND DISCUSSION

An important result of the first stage of our study concerned the most cited works in our sample of 402 articles from the Web of Science data base. We shall comment on the first five out of the ten most cited that are listed in Table 1.

Lane et al. (2001) came in first place with 475 citations. Here, the authors introduced and tested a model that contemplated relative AC, international joint venture type alliances and performance. They considered the three components of AC originally proposed by Cohen and Levinthal (1990), and found support for the latter's argument that "new knowledge and innovation are related to the existing fields of expertise" (Lane et al., 2001, p. 1156). It is important to note that this is the only reference in their article to innovation, and that there is no reference to APs or networks. In fact, we found that very few of the most cited articles that we identified using the bibliometric method made explicit references to APs, with others making merely indirect or implicit references to AC.

This is the case of the second most cited article - that of Rothaermel and Deeds (2004), with 411 citations who propose a path for developing new products, i.e. product innovation, through exploration and exploitation type alliances, and verify that this integrated product development path is moderated negatively by firm size. Although they do not use the expression AC, they refer to this concept indirectly when they address the question of capabilities to develop new knowledge or competencies that could be exploited subsequently to create value, making reference to Cohen and Levinthal (1990).

This is also the case of a few of the remaining most cited articles. Anderson et al. (2002), which came in third place with 300 citations, investigated two types of relational embeddedness – business and technical - at the subsidiary level and verified the positive influence, especially of technical embeddedness on subsidiary performance and its role in the development of products and processes in the multinational company. AC is referred to implicitly when the authors observe that the subsidiary's ability to identify and assimilate new information in other organizations depends on the closeness of its existing dyadic relationships with different business partners. AC is also at issue in connection with knowledge transfer problems that would depend on the "...recipients' ability or willingness to absorb new information" (p. 984).

On the other hand, Zaheer and Bell (2005), the fourth most cited article with 300 citations, that emphasizes the importance for innovation oriented firms to develop network-enabled capabilities so as to bridge structural holes that would contribute to boosting firm's innovative performance, refer explicitly to AC as a critical factor for innovativeness.

Sivadas and Dwyer (2000) do not emphasize AC as such, but propose a construct called "cooperative competency". The latter would be related to AC, but also to relational capability and mutual adjustment, and would be a key factor for new product development, both within the firm and between firms.

Table 1 – Most cited articles (keywords: AC x Alliances/AP/Networks x Linkages x Innovation)

Title	Authors	Year	Citations
Absorptive capacity, learning, and performance in international joint ventures	Lane, P.J.; Salk, J.E.; Lyles, M.A.	2001	475
Exploration and exploitation alliances in biotechnology: A system of new product development	Rothaermel, F.T.; Deeds, D.L.	2004	411
The strategic impact of external networks: Subsidiary performance and competence development in the multinational corporation	Andersson, U; Forsgren, M; Holm, U.	2002	300
Benefiting from network position: Firm capabilities, structural holes, and performance	Zaheer, A.; Bell, G.G.	2005	295
An examination of organizational factors influencing new product success in internal and alliance-based processes	Sivadas, E; Dwyer, F. R.	2000	282
The scope and governance of international R&D alliances	Oxley, J.E.; Sampson, R. C.	2004	210
Optimal cognitive distance and absorptive capacity	Nooteboom, B.; Vanhaverbeke, W.; Duysters, G; Gilsing, V.; Van den Oord, A.	2007	178
Knowledge sharing in organizations: Multiple networks, multiple phases	Hansen; M.T.; Mors, M. L.Lovas, B.	2005	178
An empirical investigation of the process of knowledge transfer in international strategic alliances	Simonin, B. L.	2004	173
Post-formation dynamics in strategic alliances	Reuer, J.J.; Zollo, M.; Singh, H.	2002	143

Another important general data result of the first stage of our study referred to the most productive authors on the subject. G. Duysters was found to be by far the leading author with 11 articles in our sample of 402 publications. He was followed by W. Vanhaverbeke (9) and U. Lichtenthaler (8). Table 2 lists the leading authors in terms of having at least 3 articles published in this period. It is relevant that both G. Duysters and W. Vanhaverbeke are explicitly concerned with APs or alliance networks and innovation, as well as AC among other AP management capabilities, and have co-authored articles on the subject. Some of these articles were included amongst those selected as being most pertinent to our central question. This is also the case of V. Gilsing and K. H. Tsai. We shall present their contributions when we discuss the findings of these selected articles, summarized in Table 5. It is important to note that several of the articles by the other most productive authors merely make reference to AC without actually addressing the relationship between AC, AP or alliance network and innovation.

Table 2 – Most productive Authors on the subject

Author	Number of Articles (total= 402)
Duysters, G.	11
Vanhaverbeke, W.	9
Lichtenthaler, U.	8
Amburgey, T. L.; Gilsing, V; Park, B. I.; Roper, R.; Tsai, K. H.	5
Al-Laham, A.; Hurmelinna-Laukkanen, P.; Oerlemans, L. A. G.; Petruzzelli A M; Rothaermel, F. T. Ebersberger, B.; Herstad, S. J.; Love, J. H.; Oerlemans, L. A. G.	4
Anand, J.; De Faria, P.; Florin, J.; Garcia-Villaverde, P. M.; Hitt, M. A.; Knoblen, J.; Li, Y.; Lichtenthaler, E.; Liu, X. F.; Lokshin, B.; Parra-Requen, A. G.; Phene, A.; Ritala, P.; Santoro, M. D.; Wadhwa, A.; Whitelock, J.; Xia, T. J.; Mitchell W; Zahra, S. A. Liefner, I.; Liu, Y.; Molina-Morales, F. X.	3
Total	143 (36%)

Other significant general data captured in the first stage of our study referred to the most productive countries in terms of publications on the subject. Not surprisingly, the US leads, followed by several European countries, namely Spain, Germany, the Netherlands and the United Kingdom. Considering our concern with emerging economies, it is highly relevant that several of the leaders were from emerging economies. This no doubt reflects the fact mentioned by Jacob et al. (2013) that, increasingly, a significant proportion of global technological alliances involve emerging countries. It also suggests that these countries are attaching an importance to AC, alliances and innovation. It should be noted, however, that the emerging most productive countries on the subject were from the Far East, specifically, China, Taiwan, S. Korea and Japan, which came in sixth, seventh, eighth and twelve places, respectively.

Table 3- Country with greatest number of publications (keywords: AC x Alliances/AP/Networks x Linkages x Innovation)

	Country	Number of Published Articles		Country	Number of Published Articles
1°	USA	120	11°	Denmark, Switzerland	13
2°	Spain	50	12°	Japan	12
3°	Germany	43	13°	Australia	11
4°	The Netherlands	41	14°	Norway	8
5°	UK	37	15°	Austria, Sweden	7
6°	China	36	16°	Singapore	5
7°	Taiwan	33	17°	Israel, Scotland, S. Africa	4
8°	S. Korea	18	18°	Ireland, New Zealand, Portugal, Turkey	3
9°	Belgium, France, Italy	17	19°	Estonia, N. Ireland, Wales	2
10°	Canada, Finland	15			

The last significant result from our bibliometric study concerned journals that published most articles on the subject at issue. Research Policy, Technovation and Strategic Management Journal stood out as having the most articles. It is thus no coincidence that the most cited article - that of Lane et al. (2001) - as well as 5 of the 10 most cited ones were all published in the Strategic Management Journal. It is interesting that several journals with an explicit international focus in their titles, as well as some engineering journals were among the ten top journals with ten or more articles on the subject during the period investigated.

Table 4 - Journals with most articles on the subject

Journal	Number of Articles	Journal	Number of Articles
Research Policy	26	Regional Studies	8
Technovation	24	Technology Analysis Strategic Management	8
Strategic Management Journal	23	Industry and Innovation	8
International Journal of Technology Management	17	Academy of Management Journal	7
Journal of Business Research	13	Journal of Business Venturing	7
Journal of International Business Studies	13	Journal of Business Venturing	7
Journal of Product Innovation Management	13	Innovation Management Policy Practice	6
Journal of Management Studies	13	Organization Science	6
IEEE Transactions On Engineering Management	12	Knowledge Management Research Practice	
Journal of Engineering And Technology Management	10	Journal of Management	5
Journal of Technology Transfer	9	Service Industries Journal	5
R&D Management	9	Entrepreneurship and Regional Development	5
Journal of Knowledge Management	8	European Management Review	5

Table 5 – Summary of findings of selected articles

Reference & Theoretical Lens/Focus & Industry or Sector	Role of AC	AP/Network Characteristics	Implications for Innovation Performance	AP/Net Dimensions
George, Zahra, Wheatley & Khan (2001)/AP approach (not ego-net) Relational Perspective & Learning Theory/ Biopharmaceutical firms	- AC mediates the relationship between AP characteristics and a high tech firm's performance - innovative and financial	- AP structure (point of alliance in value chain) – horizontal (e.g. joint R & D, joint ventures) vs vertical alliances (e.g. outsourcing and distribution) - AP knowledge flow pattern – generative (two-way/ mutual sharing of knowledge) usually involve joint R & D vs attractive alliances (sharing of knowledge one way) e.g. purchasing and licensing agreements.	Horizontal alliances give access to multiple sources of knowledge. Vertical alliances provide access to commercialization of products/innovations -Generative alliances, supplying new technology to the firm. Attractive alliances, give access to new knowledge from multiple sources.	-AP/Net Structure -AP/Net Linkage Modalities -AP/Net management

Gilsing, Nootboom, Vanhaverbeke, Duysters, van den Oord (2008)/ Network Theory approach at firm level – ego network/ Pharmaceutical, chemical and automotive industries	- AC is one of the main (innovation) exploration (March, 1991) tasks: novelty creation and efficient absorption of it.	- The 3 elements of alliance network embeddedness are: i) position/centrality; ii) partner technological distance (similarity/dissimilarity of partners' knowledge bases), iii) density	- High alliance network centrality requires smaller partner tech distance to influence positively exploratory innovation. - Low centrality increases exploratory innovation when tech distance increases. - Intermediate degree of density effective in central and peripheral networks.	-AP/Net Structure -AP/Net management
Tsai (2009)/ Network Perspective Knowledge-Based View of the Firm Evolutionary theory perspective/ Emerging country - Traditional manufacturing sectors in Taiwan	-AC affects positively or negatively the relationship between network partners and product innovation depending on partner types and degree of innovation.	-Diversity of sources of knowledge from different partner types within network - Relationship between vertical (supplier & customer) network partners and innovation (incremental and radical) - Relationship between Rival network partners and innovation performance (incremental) - Relationship between Research organization network partners and innovation performance (radical and incremental).-	- AC positively moderates impact of vertical collaboration on performance of technologically new or improved products - AC effect on relationship between supplier-partner and performance of new products with marginal changes (incremental innovation) varies according to firm size and industry.	-AP/Net Structure -AP/Net composition -AP/Net management
Cui & O'Connor (2012)/AP approach (but not as ego-net), RBV, TCE. AC/ International perspective/ Firms from 60 industries selected from Fortune ranking of "World's Most Admired Companies"	Resource and information sharing, implicitly AC, AP composition and market factors are moderating factors in the AP resource diversity and innovation relationship.	-AP partner resource diversity – degree to which partner resources are different - AP composition - functional heterogeneity and national dispersion - Resource & information sharing, coordination capabilities - Alliance experience - Market factors (uncertainty).	- High partner diversity can be negative for innovation because of high transaction and coordination costs, and reduced AC. - Effective resource and information sharing across functions is necessary to reap benefits of resource diversity.	-AP/Net Structure -AP/Net Composition -AP/Net Management
Lião & Yu (2013)/ OL, AC & IT, not explicit AP approach nor network, merely alliances/linkages International - focus Taiwanese firms in China	-AC has a stronger moderating effect on relationship between local, as compared with international, linkages and innovation in emerging countries.	- Diversity: Local alliances (with geographically proximate firms) vs International alliances; Institutional diversity. - Alliance management/learning capabilities - AC	- International diversity vs local diversity, influences more positively innovation, as it involves informal ties and greater heterogeneity. - Institutional diversity influences differences in levels of AC between developed & emerging countries, related to technology gap.	-AP/Net Structure -AP/Net Composition -AP/Net Linkage Modalities -AP/Net Management
Yu (2013)/ Recombinatory SearchTheory & Network at Ego-network level/ High tech firms in Taiwan	- AC moderates the relationship between firm Network Composition and Innovation Performance	- Network composition precisely Ego-network-level Technological Diversity (different and new technological information and resources) measured in terms of distribution of patents.	- There is an inverted U-shaped relationship between technological diversity of a firm's network (ego-net) and its innovation performance. Firm size and industry are important influencing factors.	AP/Net Composition -AP/Net management
Beers & Zand (2014)/OL, AC/TCE, KBV, AP/ R & D alliances/Dutch and foreign innovating firms	-AC and learning mechanisms influence significantly innovation performance. - AC enables firms to benefit from multiple partner type experience.	- Diversity: Functional (partners from multiple categories in AP/net) Geographic (partners in different countries in AP/net) - Radical innovation performance vs Incremental innovation performance - Prior experience with multiple partners.	- Both geographic and functional diversity contribute to innovation - The factors explaining functional and geographic diversity are prior partner experience, patenting, and IT infrastructure that helps manage complex and diverse networks.	-AP/Net Structure -AP/Net Composition -AP/Net Linkage Modalities -AP/Net Management
Leeuw, Lokshin & Duysters (2014)/ AP approach, RBV, TCE/ International perspective/ Innovative firms in the Netherlands	-Reference to the AC problem from excessive AP diversity accounting for negative influence of high AP diversity on	- Diversity Partner types, alliance types (different categories of firms), Geographical (national vs foreign) - Radical vs incremental innovation: exploration vs exploitation	- There is an inverted U shaped relationship between AP partner diversity and radical innovation and a positive relationship with incremental innovation. - Exploiting synergies and	-AP/Net Structure -AP/Net Composition -AP/Net Linkage Modalities

	innovation.	- Management capabilities	complementarities in AP can lead to superior innovation performance.	-AP/Net Management
Wuyts & Dutta (2014) AP approach/ Contingency perspective/AC/ Biopharmaceutical industry	-Management Capabilities have fundamental role in relationship -AP diversity and innovation. - Implicitly AC and experience have a moderating role in this relationship.	- Diversity Technological - Management capabilities to align internal knowledge creation and external knowledge sourcing.	- The relationship between AP technological diversity and superior product innovation is not linear it is moderated by firm's past strategies to create new knowledge internally and by management capabilities regarding internal and external knowledge.	-AP/Net Structure -AP/Net Composition -AP/Net Linkage Modalities -AP/Net Management

A striking feature of the findings presented in Table 5 is that all but two of the selected articles that explicitly or implicitly address AC's role in the relationship between alliance portfolio or alliance network characteristics and innovation performance, highlight firm AP or network diversity as a particularly significant AP/network characteristic for innovation performance. The AP or network diversity considered is in most cases functional (different activities, alliance types, partner types) and geographic diversity (partners in portfolio/network from foreign countries; local versus international partners). It thus relates to all three key AP/Net dimensions: i) AP/Net structure, because of the heterogeneity and complexity associated with diversity and which explains that the latter is sometimes considered in terms of heterogeneity and complexity; ii) AP/Net composition because of the diverse partner types/resources; iii) AP/Net linkage modalities because of the different alliance types. It is noteworthy that one article, by Wuyts and Dutta (2014), which investigates AP technological diversity, and another, by Lião and Yu (2013), which also examines geographic diversity (international versus local linkages), both stress the importance of considering the institutional diversity of firm's multiple linkages especially when these involve emerging countries.

The two remaining articles that do not analyse AP or network density are also concerned with AP/net structure characteristics. George et al. (2001), which adopts a relational and an organizational perspective but not a social network approach, investigates the relationship between innovation performance and AP structure, in terms of both the point in the value chain of the alliance (vertical or horizontal) in the portfolio, and the AP knowledge-flow pattern, whether a mutual knowledge sharing – generative alliance, or a one-way knowledge sharing – attractive alliance. On the other hand, Gilsing et al.'s (2008) article which takes a network theory perspective at firm level, i.e. regarding its ego-network, investigates three network structural characteristics pertinent to firm embeddedness in the network: position/centrality, partner technological distance and density. Its focus is on the relationship between these characteristics and exploratory innovation (March, 1991), specifically, “the creation of technological knowledge that is new to the firm” (Gilsing et al., 2008, p.1719). AC is considered one of the two fundamental exploration tasks - novelty creation and efficient absorption of it – that have to be delicately balanced to ensure successful exploratory innovation. The authors emphasize the need to consider jointly these three characteristics of embeddedness in order to understand their complementary effects on both novelty creation and AC. Although innovation requires non-redundant contacts to access new knowledge, they consider network density as important for integrating and absorbing diverse knowledge and other inputs from these non-redundant contacts. They verify, moreover, that for exploratory innovation an intermediate degree of density would be most effective in both central and peripheral positions. On the other hand, higher network centrality, due to the fact that it brings about greater exposure to different levels of knowledge and information, requires smaller partner technological distance so as to have the necessary AC to absorb knowledge from all parts of the network and generate innovation. Conversely, low centrality could increase innovation when technological distance increases. Their research finds, however, that firms with high network centrality generally have superior explorative innovation performance.

It is relevant that in Macedo-Soares et al.'s (2015) bibliographic review of 812 articles on international APs/networks and innovation performance, but where the focus was not on AC, diversity was also found to be the most significant AP/network characteristic in terms of influencing innovation performance. This influence differed according to the type of diversity and innovation performance (radical or incremental). Although there

was not a clear consensus among authors on whether and when this influence was negative or positive, a majority found that the relationship between AP/network diversity and innovation was not linear (see also Wuyts & Dutta, 2014 regarding the latter). Several researchers suggested that it would be curvilinear, precisely, an inverted U - shaped relationship, reflecting the fact that after a certain point increasing diversity would have a negative impact on innovation performance because of the difficulty of managing the increased transaction costs involved and absorbing the very different knowledge and information provided by highly diverse APs or networks, in other words, because of an AC problem where the latter is concerned (For example, see Leeuw et al., 2014, and Yu, 2013, in Table 5).

This explains why most articles reviewed in Macedo-Soares et al. (2015), as well as in our bibliographic study, stress the need for AP/network management capabilities (see also Duysters et al., 2012; Faems et al., 2012), with several highlighting AC, or just referring to it implicitly or explicitly.. Note that many also stress prior (multiple) alliance experience together with management capabilities (e.g. Cui & O'Connor, 2012; Beers & Zand, 2014) and/or AC, not only to contend with the challenges associated with high AP/network diversity or heterogeneity, but more generally to derive greater benefit from the AP/network for leveraging innovation performance.

Most of those that highlight AC view it as having a moderating or mediating role in the relationship between certain AP/network characteristics and innovation performance. This was the case of George et al. (2001) which took an explicit AP approach, although not viewing AP as an ego-network but as a set of direct alliances, and which considered that AC mediated the relationship between a high tech firm's AP, notably, as we already mentioned, its structure, in terms of vertical and horizontal alliances and its knowledge flow patterns, and the firm's performance, both innovative and financial.

The other articles that highlight AC's moderating role refer to the alliance/linkage diversity characteristic: Tsai (2009), Yu (2013) and Lião and Yu (2013).

Tsai (2009) takes a knowledge-based view of the firm when investigating the mediating role of AC in the relationship between alliance network diversity and product innovation performance. The focus is on the diversity of different partner types - supplier, customer, competitor, and research organizations. The collaboration with these different partner types "represents...the diversity of knowledge networks" (p. 776). This has to do with the author's evolutionary theory perspective that "asserts that diverse sources of knowledge allow a firm to create new combinations of knowledge (Nelson and Winter, 1982)" (p. 776). This article is of special interest to us because it presents research on collaboration networks of firms in an emerging country (Taiwan). As was noted in Table 5, one of its most important findings was that AC has a positive moderating role in the relationship between vertical collaboration, i.e. with supplier and customer partners in the firm's network, and radical product innovation performance, what the author terms as "completely new or significantly improved products" (p. 776). This is not necessarily the case, however, for incremental product innovation performance. When the alliances in the network are with suppliers, firm size and industry type would have a significant influence, and when the alliances are with customers, AC would have a negative effect on the relationship between the network and this type of incremental innovation performance. On the other hand, when the alliances are with competitors in the network, AC would have a positive moderating effect in the relationship with incremental innovation performance, in the case of large firms. Tsai (2009) also found that AC would have a negative influence on the relationship between collaboration with research organizations and radical innovation performance and a positive one in the case of incremental innovation performance.

Yu (2013) is especially interesting for us because the author performs an empirical investigation into AC's role in the inverted U - shaped relationship between ego-network diversity, precisely technological diversity and innovation in an emerging country - Taiwan, and verifies that AC has an important moderating role in this relationship. Technological diversity refers to different and new technological information and resources measured in terms of patent distribution. He finds that increasing AC will increase the slope and amplitude of the positive effects of technological diversity on firm innovation performance and will reduce its negative effects. He suggests that firms that are embedded in technologically diverse ego-networks should invest significantly in increasing their AC so as to benefit more in terms of leveraging innovation performance from this diversity.

Lião and Yu (2013) do not take a network or portfolio approach. However, the authors' findings are highly significant in terms of their contribution to our central question. Indeed, in the scope of their empirical research into multiple linkage diversity, precisely international and institutional diversity of Taiwanese manufacturing firms in China, they make evident peculiarities of emerging countries when it comes to AC's role in the relationship between linkage diversity and innovation performance. As Macedo-Soares et al. (2015) had already pointed out, Lião and Yu's (2013) research shows that AC has a weaker moderating effect in the relationship between international linkages with firms from emerging countries due to the fact that firms in such countries generally have lower levels of AC. Institutional diversity probably accounts to some extent for differences in AC levels between developed and emerging economies.

As for the remaining selected articles that also focus on the AP/network density characteristic, none explicitly refer to the moderating or mediating role of AC in the relationship between this characteristic and innovation performance, although all mention the importance of AC. For Cui and O'Connor (2012) alliance management capabilities, notably, resource and information sharing as well as coordination capabilities are highlighted as having this role. Alliance experience is also stressed in that it would help firms overcome the reduced level of AC associated with high AP partner resource diversity.

Beers and Zand (2014) who finds a positive relationship between, on the one hand, functional AP diversity and radical innovation performance (sales of radically new products per employee), and, on the other hand, geographic AP diversity and incremental innovation performance (sales of incremental products per employee), also emphasize the importance of prior experience with multiple alliances in this relationship. However, differently to Cui and O'Connor (2012), AC would be fundamental for deriving benefits from this experience. Thus AC as well as learning mechanisms, implicitly, would have a significant influence on the relationship between AP diversity and innovation performance. The authors recommend investing in R & D as well as training because they contribute to the firm's AC, increasing its ability to assimilate knowledge from diverse external sources which could benefit its innovativeness.

Leeuw et al. (2014) who are among the authors that found an inverted U-shaped relationship between AP diversity and innovation performance, do not make explicit mention of AC as having a moderating role in this relationship. AP management capabilities, specifically, combining resources of partners and exploiting synergies and complementarities in the AP, are stressed as contributing to superior innovation performance from the AP. However, AC is also implicitly considered critical in this relationship when the authors highlight the fact that excessive diversity (partner, alliance, geographic) can create difficulties to manage too many new ideas because of an AC problem.

Wuyts and Dutta (2014) who also consider the relationship between AP diversity, specifically technological diversity and product innovation as a non-linear one, emphasize AP management capabilities, and in particular the firm's past strategies. These would be critical for creating new knowledge internally as well as aligning internal knowledge creation with external knowledge sourcing, thus involving AC. The authors indeed believe that their research contributes to the AC literature "by identifying concrete dimensions of internal knowledge creation that enable firms to benefit from external knowledge": "(1) low reliance on existing solutions, (2) attention to the unfamiliar, (3) attention to the nascent, and (4) a broad perspective on the technological field to help them in leveraging the value of extramural knowledge" (p. 1655). These four dimensions would have a moderating role in the relationship between portfolio diversity and superior product innovation.

FINAL CONSIDERATIONS AND CONCEPTUAL MODEL

From the results we presented it is obvious that our bibliographic study contributed to some extent to answering our central question: Is absorptive capacity a critical moderating factor for firms that leverage innovation through strategic alliance portfolios? Our findings indeed strongly suggest that AC is one of the critical moderating factors in the relationship between AP characteristics and innovation performance. Management capabilities are generally viewed as having this moderating role, among which capabilities for resource and information sharing, exploiting synergies and complementarities and for coordination have also been highlighted by some researchers who have investigated this relationship. However, these also consider AC as being an

important factor, even if not having a moderating role in the relationship. We saw that this role varies depending on the type of AP characteristic investigated as well as the type of innovation performance at issue, radical/explorative or incremental/exploitative. Firm and sector were also viewed as significant intervening factors. AP diversity stood out as the most significant AP characteristic but depending on the type of diversity, for e.g. partner type, AC affected the relationship differently. The research in Tsai (2009) is an eloquent example of this.

Our study had several limitations, one of which had to do with methodological limitations, notably the fact that we only used one data base – Web of Science, although one of the most comprehensive ones. Another limitation had to do with the bibliometric part of our study, for example, with the obvious fact that the most recent articles with possibly state-of-the-art research are necessarily the less cited ones. The second stage that involved qualitative analysis of not only the articles in our sample but also those referenced by other literature reviews related to our subject aimed at overcoming some of these limitations. However, the use of several other data bases is highly recommended in a follow-up study.

The finding that we viewed as particularly important regarded the AC level problem in emerging countries and the differences in these countries where its moderating role in the relationship between AP and innovation performance is concerned. We believe that a comparison between AP characteristics, notably diversity (functional, geographic, technological and institutional), and their relationship with innovation performance, respectively, radical and incremental, involving both emerging and developing countries and APs could reveal new very relevant insights.

As we saw (Table 3) the Asian emerging countries are the most productive among the emerging economies in terms of number of publications on the topic at issue. Only four articles in our sample were from Latin American countries (Brazil, Colombia, Mexico and Peru). Brazil is one of the BRICS and the only one in Latin America. Considering the increasing importance of AP and networks for leveraging innovation of firms in emerging countries (Jacob et al. 2013), we recommend future research focussed on Latin America and Brazil in particular, as well as comparisons with results from emerging countries in Asia.

Below we formulate a few propositions to be tested in the scope of such research as well as a conceptual model for analysing the variables at issue, with the help of structural equation methodology.

Propositions:

P1: In emerging countries, AC positively moderates the relationship between AP/Net functional diversity and radical/explorative innovation performance

P2: In emerging countries, AC positively moderates the relationship between AP/Net functional diversity and incremental/exploitative innovation performance

P3: In emerging countries, AC positively moderates the relationship between AP/Net geographic diversity and radical/explorative innovation performance

P4: In emerging countries, AC positively moderates the relationship between AP/Net geographic diversity and incremental/exploitative innovation performance

P5: In emerging countries, AC positively moderates the relationship between AP/Net technological diversity and radical/explorative innovation performance

P6: In emerging countries, AC positively moderates the relationship between AP/Net technological diversity and incremental/exploitative innovation performance

P7: In emerging countries, AC positively moderates the relationship between AP/Net institutional diversity and radical/explorative innovation performance

P8: In emerging countries, AC positively moderates the relationship between AP/Net institutional diversity and incremental/exploitative innovation performance

P9: In emerging countries, the level – high/low - of AC influences positively/negatively AC's moderating role in the relationship between AP/net diversity and innovation performance

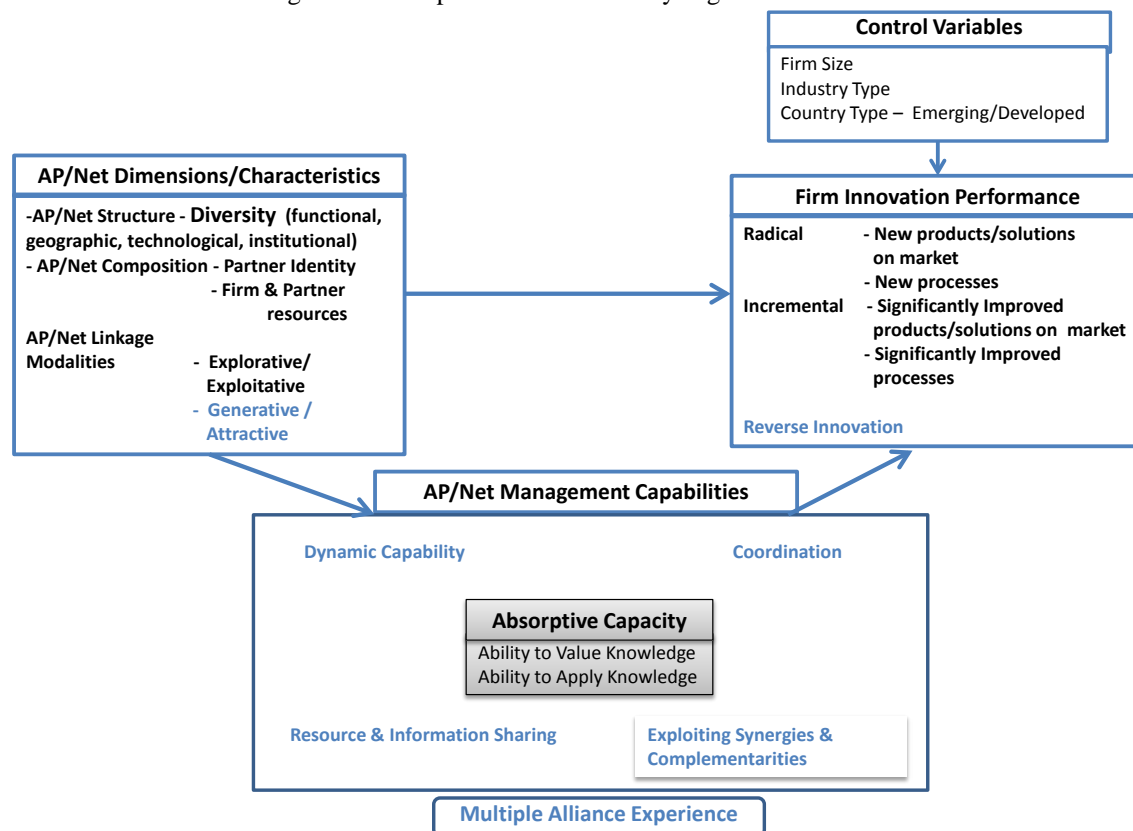
P10: In emerging countries, firm size influences AC's moderating role in the relationship between AP/net diversity and innovation performance

P11: In emerging countries, industry type influences AC's moderating role in the relationship between AP/net diversity and innovation performance

P12: In emerging countries, country type – emerging versus developed - influences AC’s moderating role in the relationship between AP/net diversity and innovation performance

In Figure 1 we present our conceptual model, highlighting in bold black the variables in the different dimensions and that we recommend focusing on first, in keeping with our propositions. These variables are AC in the AP/Net Management Capabilities dimension, AP/net diversity in the AP/net structure dimension, and Radical and Incremental Innovation in the Firm Innovation Performance dimension, as well as the control variables: firm size, industry type and country type - emerging versus developed country. Since AP/Net diversity relates to AP/Net composition and AP/Net linkage modalities, these two dimensions are also in black. We suggest, however, that at a second stage, future research considers the variables in blue together with the ones highlighted, in keeping with a systemic holistic approach and to appreciate their complementary effects on both AC’s mediating role, when applicable, and different types of innovation performance, as has been argued, among others, by Gilsing et al. (2008). In addition, we recommend that at a second stage of future research into emerging countries, the “reverse innovation” performance type (Govindarajan & Ramamurti, 2011) should also be considered.

Figure 1. Conceptual Model for Analysing AC and AP/Net and Innovation



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CROSS-CULTURAL INTEGRATION: A STRATEGIC TOOL FOR CORPORATE GROWTH AND SUSTAINABILITY

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ABSTRACT

This paper responds to calls for pragmatic context-driven scholarship and administration in regards to the strategic use of successful cross-cultural models in the global business environment. Specifically, with regard to global organizations, this paper attempts to reconcile the disconnect across corporations and academic institutions between global business results and the ability to leverage cross-cultural resources productively. This paper suggests a new framework, through the use of a one-year longitudinal study designed to bring a progressive, effective approach to cross-cultural understanding within an integrated methodology. Where today a singular approach is most commonly used in (generally unsuccessful) attempts to gain cross-cultural cooperation and collaboration to derive superior business results, this paper presents a unified approach rooted in psychology, sociology, anthropology and interculturalism.

Keywords: Cross-cultural communication, knowledge integration, competitive advantage, global organizations, CIPA

INTRODUCTION

Companies invest and operate in many diverse markets across the global marketplace, therefore functioning as a system of many subunits working in a diverse environmental context. It becomes essential to develop the capacity to see patterns and interrelationships – especially when working across cultures. Only by doing so can individuals within organizations realize the full consequence of their actions and decisions on those around them and the organization as a global entity (Marquardt and Reynolds 1994). On a daily basis people establish and maintain relationships that, by their very nature, are cross-cultural and impact the organization's ability to succeed. If there are barriers to cross-cultural interactions in the global work environment, the effectiveness of that workforce is likely to drop exponentially due to obstacles related to task realization. By contrast, effective cross-cultural interactions contribute to employees' learning and creativity, improve communications and increase the satisfaction level of personnel worldwide.

According to the Merriam Webster Dictionary, "culture" is 1) "the integrated pattern of human knowledge, belief and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations" 2) "the customary beliefs, social norms and material traits of a racial, religious or social group" or 3) "the set of shared attitudes, values, goals and practices that characterizes an institution or organization". For the purpose of this paper, we may think of culture as a set of shared attitudes, values, beliefs and behaviors shared by a specific group of people.

Global corporations, whether they are aware of it or not, encounter culture daily. These encounters, at all levels and in all instances, are generally undervalued and often unnoticed opportunities to glean and reconstruct diverse knowledge of all manner. From this perspective, it is reasonable to view culture as a knowledge resource. Mismanaging culture, as with other resources, undermines corporate endeavors in ways that catch leaders – often at senior levels – off guard and has the capacity to negatively impact business results, goal achievement and, in some cases, throw corporate strategies off course for years. As much as cultural integration

offers unimaginable opportunities, not managing culture across boundaries and borders is rife with pitfalls that put business at significant risk.

Cross-cultural distribution of knowledge and understanding is always at risk of being misdirected, misconstrued or missed - therefore generally underused and devalued. For firms to grasp the opportunity to leverage knowledge from all corners of the world across their diverse teams, people must be more than just 'sensitive' to the global environment, which is made up of a multitude of cultures across the world.

Culture forms the way we think, act... and react – across all spectrums – often causing individuals to perceive reality very differently across borders. The complex interplay throughout the global network makes it difficult to apply standard process, procedure and communication standards across global business interactions. This is why knowledge, borne of understanding, is even more fundamental than just cultural awareness and is a key ingredient to cultural integration. Research on cross-cultural communication often focuses on understanding how individual differences influence the ability to communicate with others. Since most individuals grow up within a single culture, having to interact with individuals from different cultures (or backgrounds) can represent misunderstandings and misrepresentations that impact an organizations ability to develop healthy working environments that drive positive business growth.

STUDY FRAMEWORK & METHODOLOGY

Study Overview

A client-based study was selected as the most appropriate method of initial investigation aligned with the goal of determining how cultural differences can be leveraged for organizational success. The focus was the clientele of Luminosity Global Consulting Group and a comparison of prior attitudes, beliefs, behaviors, experience and results as compared to the same after the implementation of a comprehensive, holistic methodology. Over a one-year period, 48 clients in global organizations (with permission) were studied and evaluated with a view to identifying and leveraging critical components to the cultural integration process. The process included a pre-study intake survey, interviews, assessments, the implementation of the CIPA model and post-study assessments and surveys. The subjects of the study worked for large global organizations and all rank as Manager and above.

Research Questions

Against this background, the purpose of this research is to identify and leverage the determinant factors that have led to past successes and failures, while using that information to create an integrated model that leads to more productive business results. As a result, the following research questions are posed:

1. How can we use culture as a knowledge asset in the global work environment?
2. What are the critical success factors when working across boundaries and borders?
3. What is the most effective method to ensure the workforce has the necessary framework available to succeed in complex global environments?

Research Overview

In line with the aim of this study, primarily qualitative approaches were adopted. The use of data from multiple sources helped to increase the validity and reliability of outcomes, while the actual data collected throughout the study provided real-time representation of activity and outcomes.

Methodology

In addition to literature and historical data, the following methods were used to gather information that would further our knowledge of participant history, disposition, experience and knowledge toward working across cultures: intake surveys, personality assessments, cultural inventories, 360 degree interviews, the implementation of the CIPA model, post program assessments and surveys at 4, 8 and 12 months.

Empirical Data

Managers and above who had been involved in global operations throughout the years and who worked with the participating companies for five or more years were identified to participate in the study within the context of specific global teams. They were given intake surveys used, in part, to assess experience working cross-culturally, past training provided in preparation for working across cultures and the success or failures they had experienced with each method. In addition, we conducted semi-structured interviews, as well as a 360 degree interviews, to better understand what they (and their colleagues) felt were the challenges and opportunities inherent in cultural integration. The DISC personality assessment was administered to better understand predispositions and management/leadership styles, as well as the Intercultural Development Inventory in order to assess real vs. perceived cultural awareness and competence prior to the initiation of the CIPA process. Interviews were conducted in English and lasted on average one hour each, while each participant spent approximately one hour taking assessments (in English or their local language) and participated in a two hour debrief to discuss assessment outcomes, past experiences, training and development designed to assist them in working across cultures in global business. Once the “Pre-work” was complete, the CIPA Program was administered via group training and individual coaching over a sixteen week period. Once the program was completed, each participant was asked to complete a survey on the effectiveness of the program and what (if anything) had changed based on the learning process. Each participant was also required to repeat the DISC Assessment and IDI in order to assess any change from the beginning of the program.

Participants

The selected participants provided an ideal population for initial research. All worked in global business for a minimum of five years, had to communicate across boundaries and borders on a regular basis and were somewhat reliant on their global counterparts to achieve organizational mandates and goals. Although participants are not identified personally for the purpose of this study, the following companies agreed to participate in the study:

Cisco Systems: Cisco Systems, Inc. was founded in San Jose, California in 1984. Cisco designs, manufactures, and sells Internet Protocol (IP) based networking products and services related to the communications and information technology industry worldwide. They have 70,000 employees worldwide and generated \$47B in revenue last year. For the purpose of this study, we will be working with their Global Service Division. Participants ranged in age from 32 to 54 and were from the following countries:

Table 1: Number Of Participants From Each Country

Country	#	Country	#	Country	#	Country	#	Country	#
Australia	3	China	2	India	3	Netherlands	2	Singapore	4
Canada	2	France	1	Mexico	2	Qatar	3	US	4

DHL: DHL is owned and operated by Deutsche Post DHL, headquartered out of Bonn Germany. The Deutsche Post and DHL corporate brands offer a portfolio of logistics (DHL) and communications (Deutsche Post) services. DHL has approximately 490,000 employees around the world who consistently work across not only geographical boundaries, but functional operations as well. 2014 revenue was €55.1B. For the purpose of our study, we will be working with selected teams within the Global Logistics Division. Participants ranged in age from 29 to 58 and were from the following countries:

Table 2: Number Of Participants From Each Country

Country	#	Country	#	Country	#	Country	#	Country	#
Brazil	3	China	3	Germany	2	Russia	2	US	3
Canada	2	England	2	Japan	2	Switzerland	3		

CIPA

To explain CIPA, start by considering that a rapidly growing number of people lead geographically dispersed teams (or work on international projects) that attempt to draw expertise from across multiple regions and functions. In order to harness the power of that expertise worldwide, while simultaneously maximizing the benefits of geographically dispersed teams, it is critical to not only understand, but leverage, the multi-dimensional talent and diverse viewpoints available through global collaborative efforts (Marquardt 2001).

We define CIPA as the systematic and purposeful management of culture as an organizational knowledge asset (Figure 2). One vital, yet substantially underutilized, way to address and overcome cross-cultural challenges is to integrate several core dimensions of culture, psychology, anthropology and sociology. The four dimensions that have the highest potential to inhibit an organizations ability to generate strong global business results are:

1. Awareness Of Self, Others And The Value Of Cultural Integration: Knowledge is power. Incorporating cross-cultural context provides a mechanism not only to understand that we all see things differently, but also to comprehend that these perspectives have an enormous impact on attitudes, beliefs and behaviors... and on the ability to work effectively across borders (Mackey 2014).



2. Cultural Inventory/Assessment:

Cross-cultural assessment provides insight as to how to best interact with and leverage organizational diversity – but more importantly, it provides insight as to specific cultural norms and preferences while also allowing the identification of cross-cultural norms and preferences amongst global colleagues. Assessments provide for the discovery as to how to best communicate and leverage others for organizational success. In order to effectively collaborate, one needs to understand what is enabling success or hindering progress in a global context.

3. Cultural Orientation & Alignment:

Orientations provide a way to understand personal *and* colleagues' behaviors to effectively collaborate across borders. A cultural orientation defines the basis of differences amongst cultures such as how one self-identifies, how interpersonal relationships are viewed, how time is considered, how one communicates or

resolves conflict, etc. (Rosinski **Figure 1** CIPA

2003). Once individuals begin to understand the specific components of culture seen differently from their colleagues, they will gain the ability to build bridges between perspectives... and effectively collaborate across boundaries and borders.

4. Strategic Intention & Action: Strategic intention provides a clear process for intentionally preparing individuals, teams and organizations for interactions with their colleagues from alternative cultures on the spot – or to strategically prepare in advance for almost any collaboration or interaction outside of their comfort zone.

If personnel are informed as to why culture matters, educated as to how they might be different, enlightened as to what they might expect and given specific strategies as to how to successfully work together to achieve the desired results, the likelihood of success increases exponentially. Much of the failure in managing cross-cultural knowledge transfer lies in the inability of individuals to perceive and respond appropriately to cultural codes. This lack of anticipation and response impacts knowledge transfer, undermines strategy, creates

uncertainty, can be a major drain on corporate resources, and demonstrates managers are typically not prepared to properly facilitate cross-cultural interactions.

STUDY SAMPLES

Notice the different outcomes in the below examples from our study as CIPA is applied:

Cisco Systems:

At Cisco Systems, Account Managers were not working effectively across the regions to educate and integrate customers into core processes. In order to accomplish its goals, the division realized they would need to take a different tactic to prepare teams to work effectively around the world:

- Participants were assigned to a sixteen week CIPA Process:
 - Each member attended 4 classes (live-teach and virtual) focused on why culture is important to their success... and their customers, suppliers and partners success.
 - Each member took 1) a personal cross-cultural inventory 2) a team based cross-cultural inventory and 3) a DISC Leadership Assessment.
 - Seven cross-cultural orientation classes were provided.
 - The final three weeks were focused on learning and implementing strategic tools to work successfully across boundaries and borders.
 - At the end of the 16 week course each member earned a certificate of completion and was committed to follow-up sessions at 8 and 12 months.

Post-program, all participants had 1) established a better understanding of themselves and their colleagues 2) understood and actively spoke about the impact of culture in both their work and personal lives 3) had built initial relationships with their colleagues from around the world, making a significant effort to collaborate using the skills they had learned and 4) understood their value as a global group... and as a strategic knowledge asset. At the four and eight month follow-up, there was strong support for the ongoing use of information learned throughout the CIPA process. This team alone increased revenue by \$2.5M at the one year point and reported all global projects on time and on budget.

DHL:

DHL had been having significant communication and operational challenges as a result of the global integration of operations. Luminosity was brought in to assess the situation and implement an effective solution:

- DHL is a very diverse corporation – work methodologies were very different, from how revenue should be allocated all the way to how staff should be supervised.
- The Global Board was very culturally diverse and constantly infighting as to how to institute global policies and procedures.
- CIPA was applied, in this case, to explore, identify, orient and strategically implement global objectives:
 - The Board was first educated as to why they may have differences in worldviews and how culture affects those differences.
 - Each person was provided with individual and group coaching sessions to help them understand the value in cultural diversity and its impacts.
 - Each board member was given two assessments – one cultural, one leadership oriented.
 - The next step was to help the team see how they viewed the world differently from their colleagues and discuss what that meant for board activity.
 - Finally, meetings were facilitated to walk through specific strategies that would help them to leverage each other.

The outcome for DHL was a much stronger board that was able to better understand the impact culture had on each individual, understand their own positioning, see their disparities from a productive lens, reason through them, leverage the incredible amount of cross-cultural knowledge inherent on the team for better solutions and use the new information to create a stronger company.

LEARNING

In both cases, a holistic cross-cultural program, aligned to the corporate strategy, alleviated the ongoing challenges (and failures) experienced by Cisco and DHL. As CIPA helped people to understand the importance

and potential impact of culture on the work environment (from Account Managers to Board Members), they were able to leverage this comprehensive approach to strategically integrate local perspectives into the global business environment.

Having administered the client-based study, the data suggests that strong links between knowledge integration and culture exist. Knowledge and culture did have a significant impact on the organization's ability to collaborate to improve business results on a global basis. The CIPA methodology was extremely effective in establishing knowledge and understanding, while dispelling habitual patterns of assumptions, cognitions and feelings that underpin culture that lead to cultural integration failures. Such patterns were central to the challenges encountered in the study. It became clear that a critical function of cultural integration is in creating and maintaining open communication and alignment, as well as coherence, across boundaries and borders through a holistic, integrated process.

Culture forms the way we think and act – across all spectrums – causing the participants in our study to perceive reality very differently from their different cultural perspectives. Collaboration did not come naturally to the participants within their traditional organizational setting. Virtually all participants reported having to work across multiple cultures that typically did not encourage collaboration, making their work very complex and results very difficult to achieve. In general, when the participants were asked to collaborate across various cultures, it contradicted the structure they were used to and became a major challenge - both emotionally and cognitively. In order to overcome these challenges, CIPA was successfully implemented to prepare the group for global interactions.

All participants demonstrated the capacity to generate significant results... *once they were provided with a clear methodology for establishing successful cross-cultural communications.* In order to mobilize the global expertise in participating organizations, the CIPA methodology successfully put the pieces together to facilitate successful global outcomes to help participants internalize the importance of cross-cultural integration, understand their strengths and biases, enable alignment through diversified understanding and empower the participants to take action with strategic intention. The core learning from this study was that global success is directly correlated to the level of cross-cultural preparation and development of the global team.

DISCUSSION & ANALYSIS

CIPA addressed conflicting components by ensuring the constituents knew and understood not only what their own culturally based values and necessities were, but also that they became familiar with their colleagues cultural norms. This formed an empathetic bridge and the desire to comprehend and leverage different worldviews. When considered from this perspective, the cultural dimensions expressed in assumptions and habituated patterns of thought created escalated levels of risk across the organization when not adequately addressed. Ultimately, CIPA was a missing ingredient for participating organizations and a vital component to the integrative subtlety of leveraging multiple cultures as a global knowledge asset. Through the lens of CIPA, participants were able to distinguish the complex components of culture in a way that made it understandable and manageable.

The initial results from the intake survey revealed that 71 percent of participants had never had any cross-cultural training to prepare them for working in a global environment. Of the remaining 29 percent, 23 percent felt that the training they had received had been either ineffective or incomplete. It is remarkable to comprehend that only 6 percent of the sample population felt they had been adequately prepared to work across cultures. Subsequent participant interviews and discussions with management, colleagues and employees of participants confirmed the initial results, but also revealed the distinct need for specific types of development. It became very clear that the majority of the limited training provided to global team members revolved around basic behavioral attributes. No participant had any point of reference for 1) understanding their own strengths and biases 2) how culturally astute they were or were not 3) what other worldviews might be or how orientations affect the capacity for achieving results and, perhaps most strikingly, 4) the knowledge or potential for deployment of strategic tools to facilitate cross-cultural communications or global business results.

As results were analyzed for the Intercultural Development Inventory (IDI™), 64% of participants had a significant gap between the level of cultural knowledge they actually had and their perception of that same knowledge. The DISC™ (Dominance, Influence, Sociability and Conscientiousness) assessment revealed a clear alignment between cultural identity and management and leadership style. This assessment assisted in improved understanding in regards to predispositions and management/leadership styles as they aligned to culture.

Throughout the course of our study, it became apparent that CIPA provided the foundation for building an organization primed to access, understand, integrate and leverage cross-cultural skills and knowledge. It enabled participants to act appropriately and thrive in the complex, changing and ambiguous conditions that prevail across their organizations - creating the capacity to leverage their multi-cultural environment as strategic asset.

The post-study assessments revealed an 84 percent improvement in participants ability to understand their cultural preferences and biases, a 63 percent increase in understanding as to why culture affects business results, the overall recognition of the need for clear development plans when undertaking global integration, a 96 percent acknowledgement for the need to understand and empathize with alternate worldviews and 71 percent of participants indicated the strategic toolbox for cross-cultural communications had significantly impacted their ability to prepare and work successfully with their global colleagues.

MANAGERIAL IMPLICATIONS

Cross-cultural disparity has proven to impact business negatively if not managed well, thus affecting the cohesiveness of the unit, employee productivity levels and overall business results. As firms reach across borders, the need for global-leadership capacity is surfacing more and more - often as a binding constraint. According to one survey of senior executives, 76 percent believe their organizations need to develop global-leadership capabilities, but only 7 percent think they are currently doing so very effectively and some 30 percent of companies admit that they have failed to exploit fully their international business opportunities because of insufficient internationally competent personnel. Firms worldwide are struggling exponentially not only to prepare their workforce to work globally, but perhaps even more fundamentally, to prepare leaders that are equipped to lead in a global environment.

Our study clearly reflected the above statistics are accurate and that there is a clear and present need for cross-cultural integration for global business to continue to grow and develop. When 94% of the workforce does not feel prepared to work globally, there is a significant problem. The results from post-CIPA implementation surveys, assessments and interviews clearly demonstrated that there is an effective way to leverage cross-cultural integration to propagate the readiness of the global workforce, significantly improving employee knowledge and motivation...resulting in improved business results and the opportunity for global business to continue to successfully develop and grow. Corporations just need to value their human resources enough to invest in a comprehensive solution that creates sustainable results, such as CIPA.

CONCLUSION

Study Limitations

Population (Sample Size): The initial study population was limited to the client base of Luminosity Global Consulting Group and were primarily from the technology and supply chain industries. Ideally, CIPA would be studied in the context of a broader industry focus with a more significant sample population.

Time: The study was administered over a one-year period. While we did see improvement in revenue generation a decrease in cost structures, as well as on-time, on-budget global projects as a result of the CIPA process, the study was not long enough to assess the long-term impact of CIPA.

Demographics: The demographics of the study were limited to very small sample populations from each culture and age group represented. Although 16 countries were represented, it is necessary to further expand the cultural representation and demographic dispositions in order to assess if CIPA will be effective on a wider

basis. In addition, the participant populations were pulled from only two industries and further expansion is needed to assess if CIPA is equally effective across more diverse environments.

Future Research: Although the results of the study were very successful and proved (from a narrow vantage point) the need for a comprehensive, holistic cross-cultural integration model, future research should address the study limitations through a wider study across a more significant population and expanded demographics.

Final Thoughts

Businesses have been trying to move globalization forward for nearly two decades, yet little has changed from a business results perspective. Cross-cultural Integration Practical Application (CIPA) provides an answer to challenges that have been plaguing global business for decades. CIPA is not only about techniques to deal productively with cultural differences. CIPA is, in essence, a creative, comprehensive methodology that incorporates the critical success factors for global teams to succeed in achieving remarkable business results on a global scale. *Culture can be leveraged as a knowledge asset with the right methodology in place.* Whereas traditional cross-cultural training models tend to be singular in focus and operate within the confines of an individual's own cultural norms, values and assumptions, CIPA challenges those assumptions, providing a critical framework, and propels participants beyond their previous limitations to discover solutions that reside across boundaries and borders, rather than inside the boundaries of their own minds. In order for global business to move to a higher level and obtain sustainable growth, it requires a paradigm shift, an enlargement of cross-cultural understanding, beyond what most organizations understand today – that shift begins with CIPA.

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THE RELEVANCE OF CARROLL'S CORPORATE SOCIAL RESPONSIBILITY PYRAMID MODEL FOR MULTINATIONAL ENTERPRISES OPERATING IN SOUTH AFRICA: THE OPINIONS OF ACADEMICS ON CORPORATE SOCIAL RESPONSIBILITY IN SOUTH AFRICA

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ABSTRACT

This study investigates the relevance of Carroll's Corporate Social Responsibility Pyramid Model (CSR) in the context of multinational enterprises operating in South Africa by utilizing exploratory research powered through a Delphi Method. The population of the study was CSR academic experts at South African universities. The sample comprised of 18 CSR academic experts at South African universities. The Delphi process involved three rounds of data collection. The findings contradict Carroll's CSR Model and indicate that ethical responsibilities are the most important category of responsibilities and philanthropic responsibilities are the least important category of responsibilities for multinational enterprises in South Africa.

Keywords: Carroll's CSR pyramid, CSR in South Africa, multinational enterprises

INTRODUCTION

For the last fifty years, there have been many definitions of what CSR is (Carroll & Shabana, 2010:89). However, there is no universally accepted definition of CSR (Tobey & Perera, 2012:97). Lindgreen, Swaen and Campbell (2010:430) point out that Carroll's proposed four-part CSR pyramid model is used regularly to define CSR and is "probably the most established and accepted model of CSR". Research regarding multinational enterprises' CSR practices in developing and emerging market economies is limited, varied and split (Jamali, 2010:184). Lindgreen *et al.*, (2010:429) find that there has been a very limited research focus with regard to CSR in Africa. In South Africa, CSR is known as corporate citizenship and corporate social investment (King, De Jongh & Carapinha, 2010:363). Dobers and Halme (2009:246) and Idemudia (2011:1) add that CSR discussions have been focused largely on European and American views and priorities. Cruz and Boehe (2010:246) argue that because multinational enterprises operate in different business environments in foreign countries, they need to develop CSR strategies that are locally responsive to those environments.

South Africa is classified as an emerging market economy and is a member of the BRICS (Brazil, Russia, India, China and South Africa) economic alliance of countries (Department of Trade and Industry, 2011:1). Cavusgil, Knight and Riesenberger (2012:294-295) explain that emerging market economies are associated with increasing living standards, increased industrialisation, a growing middle class and low cost labour and capital. In contrast, developing economies are countries that have predominantly labour-intensive economic sectors (Morrison, 2009:42). They are characterised as having low income, limited industrialisation, poor intellectual property protection, moderate to high country risk, receive low levels of inward foreign direct

investment and have inadequate infrastructure (Cavusgil *et al.*, 2012:290, 296). Dobers and Halme (2009:237) emphasise that the need for corporate social responsibility practices is far greater in developing and emerging market economies than in advanced economies such as the United States.

Against this background, research regarding the relevance of Carroll's CSR Pyramid model in the context of multinational enterprises operating in South Africa is important as it is not clear whether Carroll's CSR Pyramid model can be applied to an emerging market economy in Africa such as South Africa. This paper is structured as follows: the purpose of the study is discussed, followed by a review of the literature pertaining to the topic. There is a discussion regarding the research design and this is followed by the presentation of the findings and a discussion regarding the managerial implications for managers.

PURPOSE OF THE STUDY

The purpose of this study is to determine whether the sequential four-part conceptualisation of corporate responsibilities in Carroll's CSR Pyramid model is applicable to multinational enterprises operating in South Africa. Therefore, this paper aims to answer the following research question: *To what extent is Carroll's four-part CSR Pyramid model applicable to multinational enterprises operating in South Africa? Consequently, the objective of this study is to obtain the opinion of academics at South African universities that teach or undertake research in the area of CSR regarding the relevance of Carroll's pyramid model for multinational enterprises that have business operations in South Africa.*

The benefit of this study is that it will bring to light which category of Carroll's corporate social responsibilities are regarded as the most important and the least important for multinational enterprises operating in South Africa. The findings of this study will either support or refute the notion that Carroll's four-part CSR Pyramid model is applicable to advanced economies, developing economies and emerging market economies.

LITERATURE REVIEW

Carroll's four-part definition of CSR is illustrated as the pyramid model of corporate social responsibility in figure 1 with four layers, each representing a responsibility of a firm (Carroll & Buchholtz, 2008:34). The reasons for including Carroll's corporate social responsibility pyramid model with its four-part conceptualisation of corporate social responsibility in this study is because:

- As stated previously, although there are a large number of definitions for corporate social responsibility that have been developed in the last 50 years, Carroll's four-part definition has been the most enduring and frequently mentioned in the literature (Crane & Matten, 2004:43);
- Visser (2006:29) argues that Carroll's CSR Pyramid is largely applicable to America and not to African countries and developing economies.

Carroll (1979:499-500; 1991:42) distinguishes between four types of corporate social responsibility perspectives, namely economic, legal, ethical and philanthropic. Carroll proposed that economic responsibility is most important, followed by legal, ethical and philanthropic responsibility (Carroll, 1979:499-500; 1991:42). The pyramid in figure 1 illustrates that economic responsibilities receive the most attention by firms, legal responsibilities are second most important, followed by ethical responsibilities. Philanthropic responsibilities are regarded as the least important of the four types of corporate social responsibility perspectives. Carroll (1979:500) asserts that business organisations are a fundamental "economic unit" in nations. Carroll (1998:2) points out that firms that make a profit for their shareholders are "good corporate citizens". Other economic responsibilities of a firm include developing and sustaining a competitive advantage in the market and conducting business operations efficiently (Carroll, 1991:40). Carroll and Buchholtz (2008:35) state that in relation to a firm's economic responsibility, society requires that a firm should make a profit and provide a return to its shareholders.

The most popular corporate social responsibility model is Carroll's CSR Pyramid (Carroll, 1991:42) as shown in figure 1 below.

Figure 1 – Carroll’s Corporate Social Responsibility Pyramid



Source: Carroll (1991:42).

A business organisation needs to operate within a certain framework of rules and regulations and therefore legal responsibilities follow economic responsibilities in the pyramid model (Carroll, 1979:500). Firms that are “good corporate citizens” obey all the laws and regulations of the country within which they operate (Carroll, 1998:2). Products and services sold by firms should comply with the necessary legal requirements of a country (Carroll, 1991:40). Carroll and Buchholtz (2008:35) emphasise that with regards to a firm’s legal responsibilities, society requires that firms obey laws and regulations including those related to preserving the environment and fulfilling their contractual duties.

In addition to complying with a country’s laws and regulations, a firm should perform its activities in an ethical manner and this is known as the ethical responsibilities of a firm (Carroll, 1979:500). Carroll (1998:4) argues that “the upright corporate citizen” must do more than just abide by the laws and regulations of a country because laws and regulations are the most basic requirements that need to be fulfilled. Carroll and Buchholtz (2008:35) point out that society expects that business organisations should operate in an ethical manner, act fairly and ethically, lead organisations ethically and avoid corruption.

Discretionary or philanthropic responsibilities should be performed according to a firm’s preferences (Carroll, 1979:500). Philanthropy by a firm is regarded as “giving back” to society or undertaking charitable activities in communities (Carroll, 1998:5). Society expects and wants business organisations to make contributions and give back to their communities in order to improve education, arts, culture and health (Carroll & Buchholtz, 2008:35).

Lee, Fairhurst and Wesley (2009:141) agree that multinational enterprises are primarily motivated by the profit motive and therefore the economic motive is the overarching corporate social responsibility perspective, as proposed by Carroll in 1991. However, they point out that the other three perspectives are becoming increasingly important (Lee *et al.*, 2009:141).

The strengths of Carroll’s 1991 CSR Pyramid model are:

- The context in which the corporate social responsibility pyramid operates and can be applied contributes to generating knowledge and provides a way in which to see the world (Jones, Bowd & Tench, 2009:303);
- The model is straightforward, simple to follow and “has an intuitively appealing logic” (Visser, 2006:33);
- The model is valuable because it assists in understanding corporate social responsibility and subjects related to it and develops important corporate social responsibility components (Jones *et al.*, 2009:303); and

- The model incorporates several contesting ideas and has been tested empirically (Visser, 2006:33).

The limitations of Carroll's CSR Pyramid model include:

- The criticism of Jamali and Mirshak (2007:258) is that while Carroll's conceptualisation of CSR is useful, it does not distinguish between the types of CSR practices that may be mandatory in certain host countries while not in others, for example forms of labour legislation such as employment equity in South Africa and those that are voluntary;
- Carroll argued that the hierarchy with four corporate social responsibilities in the model are placed "as an order of dependence" on each other. However, the empirical data supports the logic that the order of each responsibility in the hierarchy in the model is based on the perceptions of managers (Nalband & Al Kelabi, 2014:237);
- Visser (2006:45-46) contends that Carroll's CSR Pyramid model lacks conceptual clarity. Furthermore, Visser (2006:46) points out that Carroll does not provide a consistent explanation regarding why CSR is represented in a hierarchy;
- The model does not include any information regarding environmental sustainability or sustainable development (Visser, 2006:46);
- The model lacks descriptive accuracy. Carroll endeavours to position the CSR Pyramid model as a 'universal' model. However, the model has not been adequately assessed outside of the United States (Visser, 2006:47); and
- The model does not sufficiently attend to the challenge of what should occur when more than two responsibilities are in disagreement (Crane & Matten, 2004:44).

In 2004, Carroll developed a global pyramid of CSR (Carroll, 2004:116). Similar to the classic CSR Pyramid developed in 1991, the global pyramid comprises four categories of responsibilities that a multinational enterprise has to perform in order of importance: economic responsibility, legal responsibility, ethical responsibility and philanthropic responsibility (Carroll, 2004:116).

Visser (2008:489) argues that Carroll's classical CSR model is only applicable to advanced economies and that the CSR model applicable for developing economies differs from Carroll's 1991 conceptualisation. Visser (2006:36) maintains that the majority of research undertaken by Carroll regarding his CSR Pyramid model has been in relation to the United States of America. Visser (2008:492) contends that in a perfect CSR Pyramid for Africa and developing economies, ethical responsibilities should be the most critical perspective because good governance is important to ensure improvements regarding the three other corporate social responsibility perspectives, namely, economic, legal and philanthropic.

RESEARCH DESIGN

An Interpretivist research paradigm and a qualitative research approach was applied in this study. This paper forms part of a larger study that was conducted as part of a PhD thesis. In this paper a Delphi technique approach was undertaken with a sample of 18 corporate social responsibility academic experts and researchers employed at universities in South Africa. A non-probability, purposive sampling strategy was implemented. There were three rounds of data collection in the Delphi technique process. In round 1 of the Delphi process 18 panellists participated. Thirteen panellists participated in round 2 and 11 panellists took part in round 3. The data was analysed by means of qualitative content analysis.

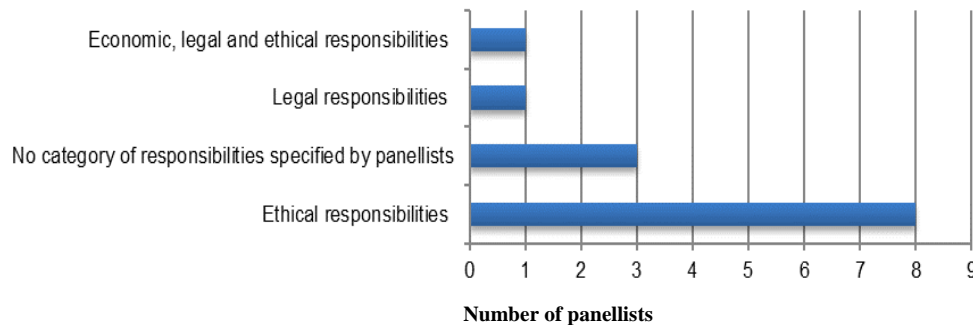
PRESENTATION AND DISCUSSION OF RESEARCH FINDINGS

The 18 Delphi panellists were asked to indicate which category of Carroll's four responsibilities was the most important and which category was the least important for corporate social responsibility in South Africa.

Figure 2 illustrates the most important corporate social responsibility category of responsibilities for firms operating in South Africa according to the Delphi panellists. Thirteen out of eighteen panellists answered this question. Eight out of 13 panellists indicated that the most important category in terms of Carroll's CSR Pyramid for South Africa was ethical responsibilities. This is a key finding and it contradicts and challenges Carroll's CSR Pyramid (Carroll, 1991:42), as well as Visser's CSR Pyramid for developing economies

(2008:489), which state that economic responsibilities are the most important category of responsibilities for firms.

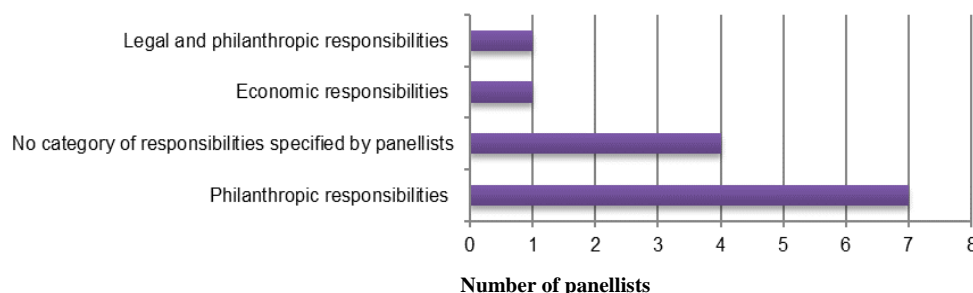
Figure 2 Carroll's Corporate Social Responsibility Pyramid – Most Important Category of Responsibilities For Firms Operating in South Africa



When explaining what ethical responsibilities of a firm entails, Carroll (1998:4) argues that “the upright corporate citizen” must do more than just abide by the laws and regulations of a country because laws and regulations are the most basic requirements that need to be fulfilled. Carroll and Buchholtz (2008:35) point out that society expects that business organisations should operate in an ethical manner, act fairly and ethically, lead organisations ethically and avoid corruption. This finding is notable because Transparency International’s (2010:2; 2011:4; 2012:3; 2013:3) corruptions perceptions index suggests that from 2010 to 2013 corruption in South Africa’s public sector has intensified and in this context it is not surprising that this finding has emerged. The importance of ethical responsibilities for firms operating in South Africa is illustrated by the comments of the following panellists: *I guess I believe that as a social species it is ethics which produces coherence and ultimately survival. Law is an encoding of this ideal of ethics but it doesn’t always get it right. Some illegal acts are ethical and some legal obligations are unethical. So these are overarching social requirements – meta requirements if you like. (Panellist E) The most important issues are ethical, because this is the broadest concept of all of them and best captures the complexity and nature of the challenge. This would warrant a really extensive discourse on ethics in the South African context. (Panellist H)*

It is interesting to note that economic responsibilities, which include the payment of taxes and job creation by a firm, were considered as relatively unimportant for firms operating in South Africa considering that unemployment in South Africa is a major developmental challenge (Hamann, Agbaze, Kapelus & Hein, 2005:4). Of particular concern is the high level of youth unemployment at almost 65% for people between the ages of 15 and 24 years (African Economic Outlook, 2014:2).

Figure 3 Carroll's Corporate Social Responsibility: Least Important Category of Responsibilities for Firms Operating in South Africa



According to figure 3, seven out of 13 panellists mentioned that philanthropic responsibilities was the least important category of responsibilities for South Africa. This finding is consistent with Carroll’s CSR pyramid, which states that philanthropic responsibilities, such as being a good corporate citizen, are the least important category for firms. This finding contradicts Visser’s proposed CSR pyramid for developing economies, which asserts that ethical responsibilities are the least important category. As some panellists said: *Philanthropic is the least important in South Africa. (Panellist R)*

Philanthropy is very noble but in the real world a very minor and often dishonest part of corporate persona. (Panellist E)

So long as companies continue to think of CSR activities as only, or predominantly philanthropic, we will continue to see a business as usual approach to communities with minimal engagement and a lack of real consideration of material issues to the company's core activities. (Panellist S)

I have reservations on the lasting nature of a philanthropic intervention and if forced to choose which one would be least important that would be it. (Panellist M)

Four out of 13 panellists indicated that they did not want to choose any category of responsibilities as being the least important for firms operating in South Africa. The reasons provided by the four panellists included:

- Two panellists felt that all the categories were interrelated and interconnected.
- One panellist felt that the ranking of the four categories of responsibilities would vary according to stakeholders or a particular firm.
- One panellist felt that the four categories were too narrow as they excluded important political, social, cultural and environmental issues.

CONCLUSION

This study focused on exploring whether Carroll's CSR Pyramid model is applicable to multinational enterprises operating in South Africa. The findings indicate that Carroll's CSR Pyramid model is not entirely relevant to multinational enterprises operating in South Africa. For example, a key finding of this study was that the most important category of corporate social responsibilities for multinational enterprises operating in South Africa are ethical responsibilities. This contradicts Carroll's CSR Pyramid model which states that economic responsibilities are the most important for firms. This study is important because it highlights the importance of ethical responsibilities by multinational enterprises operating in developed and emerging market economies.

MANAGERIAL IMPLICATIONS

This study highlights the divide between the relevance of Carroll's CSR Pyramid model for advanced economies, emerging market economies and developing economies. The high ranking of ethical responsibilities for multinational enterprises operating in South Africa suggests that there is a strong expectation from academic experts in the area of CSR in South Africa that multinational enterprises operating in the country should undertake their business dealings in an ethical and fair manner without doing harm to any stakeholders or the environment. Therefore, managers employed at multinational enterprises located in South Africa should incorporate business ethics in their decision-making processes.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

A limitation of this study was that the sample only focused on CSR academic experts employed at universities in South Africa. Therefore, the findings only represent one economic sector of South Africa, namely, the academic sector and not the entire nation. Further research regarding this topic could be extended to CSR scholars in other emerging market countries. However, the findings of this study still remain valuable in an exploratory context.

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FACTORS CONTRIBUTING TO MANAGERS' JOB SATISFACTION AT A SOUTH AFRICAN STATE-OWNED COMPANY

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ABSTRACT

The purpose of this study was to measure the factors contributing to managers' job satisfaction at state-owned companies (SOC). Both the literature and study findings show that in order to clearly understand job satisfaction, research should focus on factors at personal, organisational and industry levels. The main finding of this study was that participants would be satisfied if an external agency in the industry investigated the remuneration discrepancies that are rife in the SOC selected for this study. The research approach of the study was qualitative, with data being collected by means of face-to-face interviews and an online survey, and analysed using Creswell's six-step data analysis technique. The findings of the study have implications for top managers working in the SOC, since they might be taken to court by disaffected managers if they implement affirmative action and neglect the employment equity plan. This study contributes to the existing body of knowledge, because it is one of the few studies in the South African context that measures factors contributing to managers' job satisfaction at personal, organisational and industry levels. Previous studies, on the other hand, have measured factors contributing to job satisfaction mainly at personal and organisational levels.

Keywords: Herzberg theory, job satisfaction, personal factors, organisational factors, industry factors

INTRODUCTION

In South Africa, there is a paucity of literature on factors contributing to managers' job satisfaction in the industry where the SOC operates. Instead, South African industrial relations literature shows how legislation and the involvement of public institutions in the recruitment and selection of managers contribute to job satisfaction. Bendix (2015) found that legislation such as the Mine and Works Act 12 of 1911 and Industrial Conciliation Act 11 of 1924 excluded black workers from participation in collective bargaining. In response to their exclusion from the collective bargaining process, black workers in the textile industry embarked on a strike (Levy & Venter, 2015). The findings of a study conducted in a SOC by Maleka (2012) revealed that employees would have been satisfied if the recruitment and selection processes were carried out by a public service commission (i.e. industrial level), because top managers hired their friends for managerial positions, even though they did not have the necessary managerial experience and qualifications.

There is a dearth of research which measures factors related to job satisfaction at different levels in state-owned companies (SOC) in the South African context. Instead, researchers have focused on job satisfaction mainly at personal and organisational levels (Castro & Martins, 2010; Mafini & Dlodlo, 2014; Munyeka, 2014; Sultan, 2012; van Wyk & Adonisi, 2008). Therefore, there is a scarcity of research measuring job satisfaction at the sector or industry level. This is the gap that this study will address, by attempting to answer the following question: What are the factors contributing to managers' job satisfaction at personal, organisational and industry levels? In order to answer this research question, the researcher followed a qualitative approach.

PROBLEM STATEMENT

In the state-owned company (SOC) where this study was conducted, the organisation had implemented transformation legislation (i.e. affirmative action). This legislation was promulgated in 1998, in response to previous legislation that excluded non-white employees from opportunities for promotion to managerial and technical positions (Levy & Venter, 2015). In the SOC's information and communications technology division, there was a high attrition of managers with critical skills. Thus, the problem statement is that there was no similar study conducted prior to this study, and factors (i.e. at personal, organisational and industry levels) that contribute to managers' job satisfaction in the SOC are therefore as yet unknown.

JOB SATISFACTION: THEORETICAL FRAMEWORK

Before discussing the theoretical framework for job satisfaction and empirical research on factors that contribute to it, it is important to define the concept. According to Robbins and Judge (2015), job satisfaction is a complex construct which can be qualitatively and quantitatively measured by soliciting employees' feelings and perceptions about factors contributing to their satisfaction at personal (i.e. meaningful work), organisational (i.e. flexibility) and industry levels (i.e. labour legislation).

Internationally, researchers have been studying the factors that contribute to job satisfaction since the 1930s (Watson, 2012). As a result, there are many job satisfaction theoretical frameworks (Munyeka, 2014). Herzberg's study sought to prove that money was not the only factor that contributed to job satisfaction (Spector, 2012), as was claimed in the 1930s by Frederick Taylor, a scientific management theorist (Robbins & Judge, 2015). Despite being criticised by other scholars (Locke & Henne, 1986), Herzberg's theory is relevant to this study because it measured factors that contribute to managers' job satisfaction at the personal (i.e. achievement) and organisational (i.e. policies, salaries, managers' interpersonal relations) level. The researcher followed Stello's (2011, p.24) recommendation that current research should not focus on validating Herzberg's theory, but rather on its "practical application", since research validating Herzberg's theory in the past six decades has been "inconclusive." Like other job satisfaction theorists, Herzberg did not measure factors that contribute to job satisfaction at the industry level. However, it can be argued that policies that are implemented in the workplace should be aligned with the legislation regulating the industry.

Other research showed that employees were satisfied because they worked in organisations where rules were inflexible (van Wyk & Adonisi, 2008), they were recognised for their efforts, they were given space to use their initiative, they were given challenging tasks, and they were given opportunities for personal growth (Castro & Martins, 2010). On the other hand, scholars found that black managers were dissatisfied and resigned because of a lack of "career development opportunities and flexible working hours" (Khoele & Daya, 2014, p.4).

Bratton, Sawchuk, Forshaw, Callinan and Corbett (2010) found that employees were satisfied if they were offered opportunities to climb the corporate ladder. Similarly, studies in South Africa revealed that providing managers with training opportunities led to job satisfaction (Maleka & Rankhumise, 2014). There were cases where dissatisfied employees took their employers to court when the latter failed to promote them (Grogan, 2014). Research also showed that female managers were dissatisfied because they earned less than their male counterparts (Schaefer, 2008).

A review of international literature revealed that there was a conceptual study conducted by scholars in the Malaysian nursing industry. Although this study did not determine how legislation contributed to managers' job satisfaction, it proposed a conceptual model of the relationship between leadership style, psychological empowerment and job stress, and job satisfaction (Choon, Lau, Kuek & Lee, 2012). Global research indicates that managers in Canada are more satisfied than managers in Japan and England, and also identifies the factors contributing to their job satisfaction (Spector, 2012).

RESEARCH METHODOLOGY

Research approach

In order to answer the research question in this study, the researcher adopted a qualitative research approach. The researcher opted for this approach because he wanted to have face-to-face interaction with participants, use multiple sources to gather data, collect data in natural settings, and provide a holistic account (Creswell, 2014; Struwig & Stead, 2013) of factors that contribute towards the job satisfaction of managers at different levels.

Population and sample

The population in this study consisted of managers who worked in the information and communications technology division of the SOC. Managers in this study were junior middle managers, some of whom had employees reporting to them. A population is defined as the total number of participants eligible to participate in a study (Bless, Higson-Smith & Sithole, 2013). The population number was seventy-five (N=75). Nine (n=9) were purposively selected, and the following criteria were used to select them:

- More than three years' work experience; and
- Employment grade.

This ensured that the researcher had a homogenous sample. The purposive sampling technique is used when the researcher selects participants who have in-depth knowledge about the research topic (Creswell, 2014; Leedy & Ormrod, 2014).

Data collection

Data was collected via face-to-face interviews, and the researcher used a semi-structured interview protocol. The latter was developed from the literature review, and it is defined as an open-ended questionnaire (Yin, 2014). The use of face-to-face interviews and a semi-structured interview protocol enabled the researcher to solicit rich data (Kumar, 2014). Before the interviews were conducted, the researcher asked participants for permission to record the interviews using a digital recorder. On average, the face-to-face interviews lasted for twenty minutes each. In addition, all managers (N=75) were emailed an online survey and only fifty-five participated in the study, because Leedy and Ormrod (2014) recommend that when the population is below one hundred, the researcher should survey all the participants. The online survey questionnaire comprised mainly open-ended questions, which were similar to the ones used in the face-to-face interviews. The eight participants who were interviewed were not sent the ULR to complete the online survey.

Data analysis

The data was analysed manually, and the data analysis technique that was used was qualitative content analysis. The data analysis strategy was inductive. Creswell (2014, p.197) six step approach entails transcribing data and referring to the field notes, organising and “reading through all data, coding the data, interrelating the themes and interpreting the themes.” Furthermore, the researcher requested a colleague to analyse the data using Creswell’s six steps. The researcher and his colleague then met and discussed how they had coded the data and whether or not they had coded the same themes. This process is known as inter-coder agreement (Bless *et al.*, 2013).

Trustworthiness

In the literature, scholars use different methods to ensure data quality or trustworthiness (see Babbie, 2013; Bryman, 2012; Creswell, 2014). However, they all seem to refer to the trustworthiness criteria developed by Lincoln and Guba (1985). Therefore, the discussion below focuses on how the researcher adhered to the following criteria:

Credibility: to enhance data credibility, the researcher used different data sets or methods (i.e. face-to-interviews and online survey transcripts). Using different methods to gather data is known as triangulation (Lincoln & Guba, 1985). Member checking could not be done, because participants were busy executing their managerial duties. Peer review was done by giving the manuscript to a colleague for scrutiny. The criticism given by the colleague helped the researcher to enhance the quality of this study. After every interview session, the researcher reflected on how the interview had gone and came up with strategies to improve the subsequent sessions. Furthermore, the researcher used direct quotes from the participants in order to enhance credibility.

Transferability: during data collection, the participants provided thick descriptions of how they perceived the factors that contribute to job satisfaction.

Dependability: the interviews were recorded using a digital recorder and the online survey was stored by the researcher on a compact disc. In addition, the researcher explained the methodology in detail, so that other researchers who wish to replicate this study are familiar with the methodology that was used.

Confirmability: the researcher gave the transcripts to a colleague, who did an audit trail to ensure that the researcher was objective and honest when reporting the study findings.

Ethics

In order to ensure the anonymity and confidentiality of participants, the researcher requested the services of an external company for the online survey, rather than the SOC server. Only the participants' responses were reported (refer to the findings section). The email with the survey link was sent to the researcher's email address, and all participants were blind copied. The results of the study were presented to the divisional manager, who gave the researcher permission to conduct the study. The researcher did not mention the name of the SOC, since this study dealt with sensitive factors such as remuneration, gender and race, and its findings might harm the reputation of the organisation. To hide the identity of the SOC, the researcher did not mention the industry to which it belongs and the location where the data was collected.

FINDINGS

In this section, the themes that emerged from the data are discussed, namely personal factors, organisational factors, and industry factors contributing to managers' job satisfaction.

Personal factors contributing to managers' job satisfaction

The following sub-themes emerged from the data: opportunity and achievement, trust and responsibility, flexibility, and career development.

Opportunity and achievement: One participant alluded to the fact that not giving employees opportunities hampers their achievement: *"If tomorrow, somebody can give me an opportunity to take on a huge responsibility on their behalf, and trust me to deliver a high impact project, it is obviously a decision I have to consider, because that is what drives me. I live to deliver high impact projects and big changes. I am a person who likes achieving big changes."*

Trust and responsibility: One participant said that being trusted and given responsibility enhanced his satisfaction and commitment: *"Yah, I think when I say shareholder it means if I am entrusted to look after the section that I have been given and entrusted in such a manner that the organisation knows that I would not let that unit to be under any jeopardy because it is depending on that unit delivering its mandate, for me that would increase my satisfaction and commitment. That's really what drives me because I know I have been given that sense of responsibility. Eh and I think the thing is being given a tangible job where you are saying, if I have to deliver this thing it will have a huge impact because for me in the past I have delivered high impact projects. That's what drives me, that's what energises me."*

Flexibility: The participants indicated that flexibility would be ideal and would enhance productivity: *"Working from home is more productive than working at the workplace. There are no distractions at your home, and you work in your own time and you are able to do a lot of things in a short period of time."* Similarly, other participants said: *"I mean we have 3G connections, people are always available online. I already work from home even after hours, so it means even after I have finished work on the premises I still work from home. So, it is a sign of commitment"; "I travel a long distance to come to work and there is not always a tangible thing that makes me come to the office."* On the other hand, one participant said that it was not ideal to work from home: *"I think in the current role that I am playing it can only unfortunately be done from work."*

Career development: A satisfied participant who was given career development opportunities said the following: *“For now, I am very satisfied to have been given an opportunity to be developed and change my career. There have been barriers before but eventually, I’m ok now and nothing needs to be changed besides the fact that I don’t want to go back to the previous department. I was so stressed and demotivated and couldn’t stretch my capabilities.”* Another participant suggested how career development could be done: *“You need to remember that when you go to school, university or technikon, they give you generic skills. But now you need the specific skills to carry out your work. So it is important that you take people to that training, and you need to ensure that after a certain period you take them back to that training as well so that they have the latest knowledge.”*

Based on the above responses, it can be deduced that giving participants responsibility and trusting them, as well as providing a flexible working environment and career development opportunities, enhanced job satisfaction.

Organisational factors contributing to managers’ job satisfaction

The following sub-themes emerged from the data: meaningful and mundane work, organisational culture, acting, and salary increments and managers being paid less than their sub-ordinates.

Meaningful and mundane work: One participant said that being given meaningful work would enhance job satisfaction: *“If I was given meaningful work, because the fact that my work is not important to my customers means that my work is not required.”* Another participant indicated that females were usually given mundane work: *“I do feel at certain times when there are projects, I do feel that normally, it tends to go to the guys and not to the ladies. We are only given the soft projects in terms of maintaining and making changes to the system; I am not sure why.”*

Organisational culture: One participant said the following: *“There is a lack of respect for deadlines and there is a lack of respect for commitment.”* Other participants described the organisational culture as follows: *“Demoralising and pathetic”*; *“Knowing the right people at the top is rife.”* On the contrary, another participant explained the organisational culture as follows: *“Our culture is dynamic. Yah, it is a corporate culture. Eh I think it is because we have different types of people working here, they come from different nations as well. So, it is a good culture, there is a lot of respect you get from others as well.”*

Acting: One participant said that acting contributed negatively to his planning: *“If it can change from acting to permanent, then I will have a long term plan. At the moment I do not have a long term plan.”*

Salary increment and manager paid less than sub-ordinates: Collective bargaining, which leads to salary increases, took place at the plant level. It emerged that those who were in management were excluded from the collective bargaining process: *“We do not negotiate for that. We are just told that how much is it.”* A manager who earned less than his or her subordinates said the following: *“This is currently the situation where individuals reporting to me with fewer years’ experience are earning more than I do. I believe that this needs to be reviewed, as with management comes with additional accountability.”* The researcher could not determine the race and gender of these participants, because these responses came from the online survey.

It can be concluded from the above that giving employees’ mundane work, not giving employees long acting periods and paying managers less than their sub-ordinates contributed negatively to job satisfaction. Also of concern was the fact that managers were not part of the collective bargaining process, and the top management unilaterally determined participants’ increments. The culture of nepotism was also a cause for concern.

Industry factors contributing to managers’ job satisfaction

The following sub-themes emerged from the data: legislation and remuneration.

Legislation: The SOC's compliance with the industry transformation agenda led to different responses. Participants who were satisfied with the SOC's transformation initiatives responded by saying: *"Affirmative action is a government requirement; but, qualifications and experience are equally important as well"; "So, it is a legislative issue, but I think as people we really have to be unemotional about it"*. One participant added the following: *"In terms of affirmative action we need to undo the past, which we know that white males were given most jobs. But obviously they cannot take a black candidate for the sake of them being black because they will get frustrated in that position."* A participant who was dissatisfied with the SOC's compliance with the industry transformation agenda said the following: *"It is not fair to be held back because of affirmative action and statistics not being met; be fair to all."* Similarly, another participant who was dissatisfied expressed the following view: *"Race and gender should not be priorities, as this promotes nepotism and racism."*

Remuneration: With regard to remuneration disparities, one participant said the following: *"Our country [or industry] has to look into this problem of one race earning on average five times than the other races. It is an issue which, if unresolved, can ruin the future generation (parentheses added)."*

It can be concluded from the above that the SOC was complying with the industry transformation agenda, and that some of the participants were satisfied that it was complying with affirmative action legislation. Some participants emphasised that affirmative action candidates must be appointed based on their experience and qualifications. Other participants were dissatisfied because the SOC was chasing industry transformation statistics, as well as due to the fact that they were not promoted, and that certain race groups earned more than others.

DISCUSSION

The objective of this study was to answer the following question: what are the factors contributing to managers' job satisfaction at personal, organisational and industry levels? At the personal and organisational level, this study's results are similar to other studies, both in South Africa and globally. However, due to South Africa's unique history of unfair racial remuneration and recruitment practices, the literature and study findings recommended that external agencies should intervene to ensure that the transformation policy and remuneration are done in an equitable and fair manner.

Limitations of the study

This study could not identify the race and gender of the manager, or why the manager earned less than his or her employees, due to the responses being obtained from an online survey. Another limitation of this study was that it was conducted with a small sample and was cross-sectional. However, it can be argued that the study results are applicable beyond the SOC that was selected for this study. Yin (2014) argues that qualitative results can be generalised to theoretical propositions, but they are not intended to be generalised to the target population. Despite these limitations, this study contributed significantly to the existing body of knowledge in this field, because it measured factors that contribute to job satisfaction at three different levels.

Future research and company recommendations

Since this study was qualitative and based on a small sample, it is recommended that future research should quantify, using multi-level regression analysis, the factors contributing to job satisfaction at personal, organisational and industry levels. In terms of the company used for this study, the following is recommended:

- An investigation should be conducted on how to implement flexible working hours;
- Managers should be trusted and given responsibilities;
- An audit should be done to investigate the extent to which managers earn less than their employees;
- Another audit should be done (either by the organisation or an independent person from the industry) to investigate racial remuneration disparities;
- The company should ensure that it complies with the transformation agenda, in order to avoid lawsuits by employees who view transformation as racial exclusion; and

- Female managers should be given critical roles in projects.

IMPLICATIONS FOR TOP MANAGEMENT

Top management will have less energised managers if the latter are not trusted and given responsibilities. Managers who earn less than employees will also be dissatisfied. This could have unintended consequences, whereby these managers resign. Since these managers have scarce skills, the company will find it difficult to replace them, because there is a shortage of managers with technical and interpersonal skills, which is a global challenge (Dessler, 2011). Furthermore, managers could take out their frustrations on their sub-ordinates, and this might come to the media's attention, thereby tarnishing the reputation of the company. Since female managers perceive task allocation in a negative light, the organisation might struggle to retain them or keep them motivated.

CONCLUSION

In conclusion, this study has provided a better understanding of the factors that contribute towards job satisfaction at personal, organisational and industry levels, and its findings might be helpful to senior managers working in multi-cultural organisations, both in South Africa and globally.

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THE IMPACT OF LEADERSHIP SELF-EFFICACY ON ORGANIZATIONAL PERFORMANCE: SOCIAL AND EMOTIONAL CAPITALS AS MEDIATORS

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ABSTRACT

This study considers the leadership self-efficacy construct and its ensuing effect on organizational performance. The concept of trust, an asset leveraging the development of self-efficacy, is explored to demonstrate the positive relationship between self-efficacy and learning. The case study methodology was used to analyze a profit oriented Information Technology company. The study focuses on the presupposition - to ascertain the conviction that those managers that have regard for the self-efficacy of leadership attributes will have a higher probability of improving both perceived and actual employee performance resulting in a positive impact on the organizational performance as a whole. An adapted version of the Anderson et al. (2008) questionnaire was used to ascertain how leadership self-efficacy may affect organizational performance. The results of this study demonstrate emphasis is placed on the problem-solving attributes of leadership self-efficacy. The research highlights positive externalities on organizational sustainability - the fundamental nature of leadership.

Keywords: Culture; competencies; leadership-self-efficacy; performance

INTRODUCTION

The construct of leadership self-efficacy, as an instrument of self-awareness and its association with individuals' competencies, skills and limitations, has slowly been introduced in management. By the same token, self-confidence enables the leader to be capable to spread positive organizational values among followers, thus converging towards common aims based on sharing knowledge and experiences. Recently we have experienced an increase of competitive change at times inexplicable, mainly due to globalisation of markets, sophistication levels of clients, new technologies, to mention a few factors. These factors in a context of constant change are mainly associated to the fact that the literature shows high levels of performance positively influence organizational success. However, in order to ensure continuity in the path to sustainability, this implies that leadership has to necessarily take on a strategic role. Furthermore, this study will also highlight emotion competencies and their interaction with social competencies. There seems to be a strong relationship between organizational learning and leadership self-efficacy. Learning is a constant process of creating and sharing knowledge – a process that leads to healthy teamwork and strengthens the spirit of cooperation and employee commitment in benefit of common organizational goals. The aim of this paper is to analyze leadership self-efficacy and its impact on performance and organizational efficiency. This paper further endeavours to demonstrate an analysis of extant leadership theories which take into account individual and organizational performance associated with the leadership self-efficacy construct; therefore, our work sets forth one presupposition - P₁ the conviction that those managers who have cognizance of leadership self-efficacy attributes will demonstrate a higher probability of improving organizational performance, both perceived and actual employee performance, thus resulting in a positive impact on the organisation as a whole.

RELATIONSHIP BETWEEN EFFECTIVE LEADERSHIP AND LEADERSHIP SELF - EFFICACY

The self-efficacy construct has been studied since Bandura (1997) first introduced it, when it was understood as being the expectation that an individual is able to perform effectively so as to achieve the desired results. As a pivotal construct in cognitive social theory, self-efficacy influences behaviour at the level of persistence, initiation and intensity. In this way, those individuals who have a high level of self-efficacy are more open to experimenting tasks which are challenging, they exert higher levels of effort in ensuring tasks are successful as well as demonstrate higher tenacity in their effort to overcome obstacles. Studies, on both leadership self-efficacy and leader efficacy, measure leadership self-efficacy as specifically focusing on managers' capacity to lead change efforts (Paglis & Green, 2002).

It is pertinent to highlight that Semadar, Robins and Ferris (2006) put forward a discussion of four constructs of efficacy, namely, (i) leadership self-efficacy; (ii) self-monitoring; (iii) emotional intelligence and (iv) political acumen. This author shows a strong correlation between the results of annual managers' performance appraisals and leadership self-efficacy, emotional intelligence and political acumen. Furthermore, this author also suggests that a high level of self-efficacy is the result of perceived organizational flexibility. Consequently, the three organizational characteristics, namely, managers' autonomy, abundant resources as well as organizational culture based on support, all tend to create conditions that nurture individual flexibility and organizational receptiveness all which strengthen leadership self-efficacy. Paglis and Green (2002) also corroborate this theme in their study by highlighting those managers whose employees showed high performance levels in their appraisals, especially in characteristics such as quality of work, cooperation and initiative. This fact demonstrates a higher tendency towards leadership self-efficacy in relation to those managers who were less satisfied with their employees in these same characteristics. The second factor worthy of highlighting is related to the general attitude of employees in relation to a manager's work unity. If we consider that leadership does not exist in a vacuum but instead depends on the leader's capacity to motivate collective effort in view of organizational performance objectives, then it makes sense to assume that leadership self-efficacy is influenced by skills and attitudes of followers.

Hannah, Avolio, Luthans and Harms (2008) postulate that effective leadership requires high levels of, namely: (i) human agency, associated with exerting positive influence in a deliberate or intentional form, and (ii) also trust, an asset which leverages self-efficacy development. These two aforementioned characteristics nurture self-efficacy as an essential element that ensures a leader can be successful in the future. Previous research demonstrates that self-efficacy is positively related with a rise in performance. According to Schyns and Sczesny (2010), self-efficacy is related to leadership concepts, despite the fact that these are complex in nature, the very awareness of leadership leads to a rise in self-efficacy. However, the opposite is also a reality. The De Pater, Van Vianen, Fischer and Van Ginkel (2009) study demonstrates that when appraising the potential of management, self-efficacy is related to the choice of those challenging tasks as well as the way success is viewed, which can be defined as the tendency to choose tasks which reveal the individual's capacity. Taking into account the complexity of tasks inherent in the nature of leadership, as well as the fact that leaders have to constantly face new tasks, some which seem to be relevant, others seem to be viable, such as for example, performance adaptability and guidance towards learning, these concepts are inter-related with self-efficacy. In this way, and according to Bell and Kozlowski (2002), a strong positive relationship is revealed between self-efficacy and learning. Kozlowski, Gully, Brown, Salas, Smith and Nason (2001) demonstrate the relationship between self-efficacy and adaptability of performance in alignment with skills and knowledge according to the demands of the new situation. Self-efficacy is also related with the resilience needed to sustain both motivation and concentration during any given situation. In relation to the aforementioned pre-requisites for leadership success, according to Schyns and Sczesny (2010) these include inherent qualities associated with both human agency and the collective. Collective attributes are understood as being stereotypically female in nature, seeing they composed of qualities such as helpful, kind, supporting and sensitivity towards interpersonal relationships. On the other hand, attributes of human agency include those attributes that are stereotypically male, such as aggressiveness, dominance and independence. The studies of Sczesny (2005) demonstrate that leaders are usually perceived to be more related to human agency rather than collective. Eagly and Carli (2007) corroborate this and highlight that contemporary leaders display attributes that are both female and male in nature.

According to Schyns and Sczesny (2010), this change in expectations related to how the role of leadership is perceived, may well explain the reason for the popularity towards transformational leadership, as Bass and Avolio (1993) maintain. Thus, transformational leadership emphasises the need to ensure that this type of leadership become the role model through trust and self-trust, therefore including both collective and human agency qualities. Therefore, Schyns and Sczesny (2010) prove that those behaviours associated with transformational leadership are positively related with efficacy. Leadership focuses on the skill to stimulate new meanings and purposes, both for the organisation and employees in order to achieve well-being in business and society, as Podolny, Khurana and Hill-Popper (2005) corroborate. The nature of leadership is a paradox in itself, on the one hand focusing in the future (promoting change), on the other hand attempting to maintain the status quo (Coetzee, 2004). Therefore, the nature of leadership can be viewed as an “outside in” approach as Verwey and Verwey (2003, p. 88) postulate. Furthermore, leadership is essentially concerned with the individual’s well being, in a holistic way, nurtured by a sense of ‘care’ that is at the very core of leadership. Creating sustainability in relation to a particular dimension of time is also an integral part of the nature of leadership. Consequently, we can infer that leadership has the possibility of changing to these different dimensions, namely, short, long and medium term.

COMPETENCIES AND THE PARADIGM CHANGE: FROM SCIENTIFIC MANAGEMENT TO KNOWLEDGE MANAGEMENT

Cannell (2010) all emphasize the important role of competencies in a paradigm shift and mindset change that companies have to undergo in order to achieve high performance working levels. These high performance organizations are based on knowledge management (KM) that goes beyond the functional approach to management. It is therefore vital to highlight the importance of a change in paradigm to emphasise those competencies that are in alignment with this mindset. Rahe (2009) maintains that increasing human capital efficiency through sharing knowledge as well as improving organizational flexibility towards change and innovation is one of the objectives of KM. Furthermore, Faucher, Everett and Lawson (2008) corroborate the need for a new paradigm that takes into account KM, all its complexities as well as holistic meanings. When human capital (HC) is nurtured it catapults the development of both individual and organizational competencies. HC displays characteristics considered essential for individual flexibility and adaptability that play a fundamental role in the knowledge economy. Furthermore, HC also plays a vital role in increasing organizational productivity and competitiveness. Therefore, David and Lopez (2001) highlight the contribution HC, in the individual, organizational and social contexts. Consequently, KM is seen as a necessary condition for organisations.

Lawler (2008) suggests that, in addition to intangible capital, there is a need to set up organizational policies that allow it to find the necessary talent. Moreover, he suggests that retention policies should develop and motivate individuals towards higher levels of development and therefore performance. This allows us to assert that, despite having the conviction that competitive advantage is difficult to achieve, it can nevertheless be protected by means of those criteria. These abovementioned aspects that Lawler (2008) postulates, can be perceived as part of a talent management strategy that allows for sustainability, flexibility and organizational dynamism. Lee and Roth (2007) further corroborate that learning occurs in the mind of each individual. Moreover, organizational learning arises in two ways, namely, through the learning of its employees as individuals and also through the inclusion of new members who bring along knowledge hitherto unknown to the organisation. It is therefore clear that a wealth of information will prevail in relation to the importance of learning both at the individual and organizational levels. This highlights the essential view that all individuals should be developed and not be limited by restricting opportunities for learning and development given only to some individuals who are considered vital for the organisation.

The range of individual activities in talent learning and development opportunities include both formal and informal learning activities. A growing importance prevails related to informal learning activities. Boud and Middleton (2003) support the notion that formal learning is less important than informal learning. Furthermore, Gola (2009, p. 334) corroborates with this viewpoint by emphasising that informal learning is “learning that is usually non intentional and unstructured” but which is nevertheless considered essential for performance.

Baldwin-Evans (2006) corroborates that organizations are predominantly investing in formal training and learning programmes; however, employees seem to learn predominantly via informal ways. Learning at the individual, collective and organizational levels presuppose an emotional dimension. The equilibrium prevalent in organizational power and values (Coopey & Burgoyne, 2000), norms (Salaman, 2001) and practices is constantly being questioned through learning and change. Thus, leadership performs a vital role towards instilling the success of continuous learning by cultivating a learning culture. Successful team interaction results from teamwork and the elimination of learning barriers with the aim of developing shared learning and vision of development. Paglis and Green (2002, p. 217) conceptualise leadership self-efficacy as being the “value judgment of an individual who exercises successful leadership through (i) planning the way for group work and (ii) building relationships with followers in order to obtain commitment towards changing aims and to work with followers to overcome obstacles of change”. Thus, it is necessary firstly to enlarge the taxonomy that Paglis and Green (2002) propose as this taxonomy limits organizational behaviours related to change. It is also essential that this taxonomy take into account the definition of a group of beliefs that are directed towards those structures related with both diverse activities as well as leader’s attributes. Thus, a complex taxonomy of leadership self-efficacy may provide more clarity towards the domain of this construct as well as create a structure that develops leadership efficacy. Secondly, another factor that needs improvement is related to the fact that this taxonomy is rational in nature. Due to the scarcity of research and theoretical development in the domain of leadership self-efficacy, we think there seems to be a lack of a broad and inclusive definition. Consequently, it seems useful that a leadership self-efficacy taxonomy should emerge, which may well arise from empirical research. The third factor for improvement of the Paglis and Green (2002) taxonomy resides in the restricting nature of effective leadership definition, which represents the discerning nature of measurement. Operationalizing effective leadership includes those behaviours related to stimulus of change in work processes. A broader approach may include an analysis setting out the broad structure of beliefs which leadership self-efficacy is based on incorporating a broad structure of effective leadership.

Knowledge creation and its transfer in organisations depend on an environment that promotes both communication and experimentation. The space, known as *ba*, is a context in which knowledge is shared, created and used thus giving rise to energy, quality and is a place where conversations between individuals can take place and allows for movement within the knowledge spiral (Nonaka, Toyama and Konno, 2002). This concept of *ba* is from Japanese origin and literally means ‘space’ when translated into English. It has its origins as a concept by Japanese philosopher, Nishida (1970). This *ba* refers to a physical, virtual and intellectual space wherein all who share this space can collaborate, all have access to knowledge within the *ba* and the space is shared so as to stimulate emerging relationships. Knowledge is acquired through experiences and/or reflections at the level of each individual. Participating in the *ba* literally means to become involved in the creation of knowledge, in dialogue, to adopt and shape practices and simultaneously to be able to transcend our own limits and perspectives (Nonaka & Peltokorpi, 2006). The essence of leadership is thus to allow for the creation of knowledge and to promote the SECI process – the knowledge spiral.

THE DYNAMICS OF TRUST AND EMOTIONAL LEADERSHIP AS LEVERAGE FOR ORGANIZATIONAL PERFORMANCE

Hannah et al. (2008) corroborate that organizational effectiveness results from trust which is dependent on the competency of leaders. According to Pearce (2004), trust prevailing between leaders’ capacities and followers may result in higher levels of shared leadership. Trust is vital in knowledge sharing and is dependent on tacit knowledge existent in relationships and not on codified knowledge, as such. Chowdhry (2005) sustains this view as they maintain knowledge sharing relies on the level of trust between individuals and teams. Tsoukas (1996) substantiates that sharing skills and knowledge is related to the explicit and tacit dimensions of knowledge that will be high as long as the level of tacit knowledge is high. The most important criteria for an emotionally intelligent leader, according to MacKenzie and Welch (2005), are namely, honesty, commitment and trust. Trust, considered as one of the essential criteria for an emotionally intelligent leader, is fundamental for both individuals to find those aspects of work for which they find real passion in order to channel their energy. Normative elements, which inspire action to improve the nature of organisations in their path to being more humanistic in nature, reside both in emotions, according to Kanter (2010), and also in the search for meaning

inherent in human motivation. The link and transmission of socio-institutional values may evoke positive emotions as a control system, such as stimulus of intrinsic motivation as well as to promote both self-regulation and regulation of colleagues. Instrumental and utilitarian rationality is not the only force to govern organizational performance and behaviour. Emotions, which can be positive or negative, also play a vital role. Humour is known to be contagious and is thought to have a direct link to reducing absenteeism, improving levels of effort, health and energy, all play vital role if we take into account that people influence one another in the same way that levels of performance rise or lower.

Understanding values and shared principles can be a source of emotional appeal to support individuals in implementing values which may, in the long term, determine the level of organizational success. Thus, institutional logic facilitates adhering to core values that are in alignment with work practices. Social logic enables organisations to make investments in their human side even if these can't be justified by an immediate financial return but nevertheless are contributing towards a sustainable institution. In addition, according to Boyatzis and Goleman (1996) social intelligence competencies (Goleman, 2006) include social knowledge (based on the resulting perceptions about feelings and perspectives of others) and organizational knowledge. The literature highlights that social competencies are distinct from that competency that is related to excellent professional performance arising from emotional intelligence, whereas competencies are based on set of skills and capacities of individual knowledge which in turn give rise to exceptional results in performance (Goleman, 1999). Social or institutional logic suggests that organisations cannot function under the veil of the personality cult because this is not sustainable, as Kanter (2010) opines. Therefore, whilst top leaders must communicate organizational values and show by example, codification and stating the purpose of these values reduces the vulnerability inherent in choosing top leaders and the over-reliance on one charismatic figure. Leaders must incite passion and motivation inherent in the core of social/institutional nature of work. Furthermore, leaders should also instil the notion that the organisation is indivisible and thus be aware that institutions are greater than individuals and that they are not following one leader but rather the values and principles of the organisation as a whole. In this way, these values and organizational purposes are in themselves non-bureaucratic mechanisms that lead to the depersonalisation of work relationships. We can, therefore, ascertain that optimisation of organizational performance needs investments to be made at the social level to instil a broad knowledge of the social side of the organisation. This may include, communities of practice (wherein people are linked according to similar technical knowledge); communities of type (with people of specific group types) and communities of interest (with people exploring the same set of particular ideas).

METHODOLOGY

The case study method was used for this research wherein the focus is on contemporary events related to an IT and knowledge intensive consulting company (an SME), located in the greater Lisbon area, Portugal. We do not study a case to understand other cases, but rather to understand that particular case. Moreover, case study samples should not be confused with probable statistical samples of quantitative methods. There is a rich and robust debate centred on the usage of the case study methodology. Gerring (2007) substantiates that the case study can be understood as the intensive study of a particular and single case with the objective of extrapolating meaning to a range of other cases that make up its population. Stake (2005) however, is in disagreement with these arguments as he considers the case study to be based on the study of the uniqueness and complexity of each individual case in order to lead to an understanding of its complexity. These reasons motivated us to choose this particular methodology for this study. The sample analysed is a Portuguese, Lisbon-based IT consulting company and questionnaires were distributed among the target population, being middle/top managers. The questionnaire for this study was carried during one single distribution. It was made available via an online link on the internet. The questionnaire was based on the List of 88 Attributes – the Inventory of Leadership Self-Efficacy by Anderson et al. (2008) from which we designed a new instrument with a new designation of namely, the 65 attributes of leadership self-efficacy.

RESULTS

The data gathered reveals that when leaders assess themselves, the leadership self-efficacy attributes with the highest scores appear in the management attributes, revealing an average of 4,50 which are related to the leader designated as CP (for purposes of anonymity we have used only initials of the leaders). There was a common

result of 3, 94 in the leadership attributes for the leaders designated as SF, EVA and SAF; while the third highest result 3, 91 is related to the Problem solving attributes, which are linked with the leader designated as EVA. On the other hand, those attributes with lowest results, namely 2,66, correspond to the social/communication attributes (and are linked with the leaders designated as FF and NM). It should also be highlighted that still within this same group of attributes albeit with a slightly higher result of 2,75, is associated with the leader designated as SAF as well as the result 2,80 for the leader designated as FF. The average with the highest result of 4,066 was found in the Problem Solving attributes, followed by the result 3,64 for the Leadership attributes. The lowest average result of 3,083 was found to be in the attributes of Work in General and followed by an average result of 3,383 for Management attributes.

DISCUSSION AND ANALYSIS OF RESULTS

In our analysis of the results pertaining to the two groups of leadership self-efficacy attributes, namely, Social/Communication and Work in General attributes, it is perceived that these are associated with relational leadership as well as with social and emotional intelligences. However, the results obtained seem to indicate that the average scores for these attributes are lower compared to the Solving Problems attributes that reveal higher average results. The results for those managers designated as FF, CP and NM seem to present little importance to those attributes related to social and emotional capitals. Only those results arising from the manager with the abbreviation EVA, were perceived as being higher than for all other managers within this same attribute. If we take into account the other sub-constructs in this research, namely, the role of emotional awareness, we highlight that this awareness is at the very core of leadership and is fundamental for the creation of efficacy between leader-follower relationships. As the literature shows, emotions perform a fundamental role in relation to individual efficacy (Goleman, 1996, 1998). In this line of thought, the social intelligence competency may result in efficacy and/or high performance because the cognitive intelligence competency allows the individual to think and analyze information and also those situations that result in efficacy or high performance. In addition, according to Boyatzis and Goleman (1996), Boyatzis *et al.* (2001/2007) and Goleman (2006) social intelligence competencies include social knowledge and organizational knowledge. The results of this study demonstrate that leadership competencies may be relegated to the second level because we perceive the Solving Problems attributes to be associated mainly with management roles. Thus, these current results seem to demonstrate a type of leadership that is related to managing and especially that type of management that is mainly concerned with quality. Those studies that are essentially concerned with mediating effect of leadership self-efficacy as well as with the effectiveness of the leader seem to concentrate mainly on manager's capacity in dealing with change (Paglis & Green, 2002). Semadar *et al.* (2006) further highlight that a high level of self-efficacy results in a perceived organizational flexibility. In this aforementioned context, it seems that managers' job autonomy and a culture based on support tend to create conditions that nurture individual flexibility and organizational receptiveness towards these conditions. These in turn, nurture leadership self-efficacy that is the essential ingredient for a successful leader in the future. Therefore, it seems to that self-efficacy is positively linked with a rise in performance.

CONCLUSION

The current business world is affected by great changes and a competitiveness that requires that organisations need to achieve excellent levels of performance if they wish to survive and prosper. Therefore, the role of leadership is vital in achieving that state of excellence. The rise of complexity in business has made leadership self-efficacy a necessity. The Leadership and Problem Solving attributes nurture the dimensions of creative leadership which is in agreement with Anderson *et al.* (2008). This research demonstrates the importance of leadership self-efficacy in improving perceived organizational performance, also mediated by organizational trust. We attempted to demonstrate that social and emotional intelligences may be considered as mediators of organizational performance. We highlight that optimisation of organizational performance needs to invest in the social dimension. The future implications of this research embrace the fact that these results may well influence political thought in the labour market and how this labour market may well be aligned with the field of education in order to reduce the gaps between both markets. A limiting and weak point of our study on leadership self-efficacy and its relationship on organizational performance is linked to fact that we only gathered data which is related with the perception leaders' have in so far as their own self-efficacy is concerned, can limit and condition our conclusions, as this data may be subjective in nature. In this way, further research on hetero-perceptions

should be gathered to gauge the employees' perceptions of leadership self-efficacy on organizational performance. The data gathered in the future on of the hetero-perception leadership self-efficacy should be compared with this current data on leadership self-efficacy allowing for more objective results and thus revealing less vested interest.

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NEW PATHWAYS FOR ORGANISATIONAL LEARNING

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ABSTRACT

This paper critiques organizational learning models and highlights the capacity for unlearning in the organizational learning processes. This capacity for unlearning is important because in order for organizations to embrace innovation and creativity, there seems to be the urgent need for organizations to give up obsolete knowledge. We envisage new paths of organizational learning arising from a critique of the models, Crossan et al. (1999) as well as Zietsma et al (2002). Our research shows that a lack of the capacity for unlearning can be regarded as a weakness in the organizational learning models. In the extant organizational learning models it seems that this capacity is lacking and we think it necessary. This paper critiques the typologies of unlearning and forgetting and its related barriers of forgetting organizational process. We revisited both the models of Crossan et al. (1999) as well as Zietsma et al. (2002) and created one more phase.

Keywords: Organizational learning, forgetting, unlearning, knowledge, performance, leadership

INTRODUCTION

The current globalization is characterized by profound changes that impact spheres of our life. Its scope has widened beyond the realm of economics to embrace the domains of social, cultural and political norms and practices. In this way, organizations are also influenced in designing their strategy, behavior, improving performance and nurturing sustainability. In fact, due to the constant changes in society, Quinn and Spreitzer, (1991) as well as Schein (1993) advocate the need for organizations to learn in order to constantly and rapidly adapt. The seminal works of Hamel and Prahalad, (1993) as well as Prahalad and Hamel (1990) support the strategic value of knowledge for organizational sustainability. However, it is only since the 1990s that knowledge and learning acquired a strategic position in organizations (Carter & Scarbrough, 2001). Therefore, it is essential that organizations promote learning and cultivate the idea of the 'learner' (Ponchirolli, 2002). The main challenge is in (re)building a paradigm that values human capital and organizational learning, regarded as structural elements for organizational sustainability. Unlearning and forgetting are creative processes in organizational learning because these bring on new ideas from the external environment into the organization (Sinkula, Baker & Noordewier, 1997). These processes also redefine training especially aimed at middle managers, the content of which should focus on group dynamics, encourage collaborative learning and implement non-blaming discussions. Unlearning also encourages change in the organizational processes resulting in well-being and feelings of security among employees. Thus, promoting unlearning is a vital component in the learning process and can be acquired by: (i) not punishing failure and (ii) implementing non-

blaming reporting systems. However, it is a difficult task to encourage people to do things differently to the hitherto standard procedures as well as to motivate them towards experimentation (Romme & Dillen, 1997).

It is our aim to shed light on new directions for organizational learning arising from the following contextual issues: i) social change characterized by advancements in information technology, ii) thriving competition and iii) resistance to changing organizational routines. In an attempt to forecast new trends for organizational learning, we reflect on issues that encourage unlearning capabilities in organizational learning processes. Moreover, a critique is made on the models of Crossan, Lane and White (1999) and Zietsma, Winn, Branzei and Verinsky (2002) because both models tend to neglect the ability to unlearn and forgetting. This paper includes, an introduction which sets the scene the topic; a literature review, includes a reflection on organizational learning paying particular attention to the constructs of unlearning and forgetting which are fundamental to knowledge creation. Furthermore we demonstrate how extant theorists link unlearning to forgetting, given the characteristics of these two constructs. A discussion ensues on the organizational forgetting typology and obstacles to organizational unlearning; a reflection on organizational learning dynamics is based on the model of Crossan et al. (1999) as a point of departure leading to our suggested addition of one extra phase therein.

THE CONSTRUCTS OF FORGETTING AND UNLEARNING

The ability to unlearn and forget outdated knowledge, to eliminate old memories, was highlighted as essential for organisations to successfully be competitive and sustainable (de Holan, 2004; Akgün, Byrne, Lynn & Keskin, 2007; Hedberg, 1981). Furthermore, Coopey and Burgoyne (2000) corroborate that unlearning and forgetting are necessary conditions especially for knowledge creation to occur. The forgetting and unlearning process is part of organisational learning. Rebernik and Sirec (2007) maintain that organisations need to innovate and change their resources to develop new opportunities. Thus, there is a need to strike a balance between retaining important and useful knowledge and to know which knowledge one should forget (Tsang & Zahra, 2008). Fernandez and Sune (2009) posit forgetting as the decaying of organisational knowledge stocks and unlearning as a purposeful process of learning necessary for organisational learning. Moreover, de Holan et al. (2004) emphasize that organisations need to manage the forgetting and unlearning processes effectively for two main reasons. Firstly the involuntary loss of knowledge in organisations can be costly as it can lead to decreased sustainability. Secondly, organisations need to develop new skills and knowledge in order to maintain competitive advantage. Knowles and Saxberg (1988) suggest that employees may not be willing to unlearn because of their perceived ideas of power relationships prevailing in the organisation. Zell (2003) corroborates this idea as individuals may be unwilling to relinquish their own values and beliefs because of the time they have invested in them. Markoczy (1994) corroborates that organisations like individuals, can display the same barriers to unlearning and forgetting organisations can reach higher levels of efficiency in carrying out their routines, as a result of learning but at the same time they build competency barriers against adopting new routines.

McGill and Slocum (1993) maintain that in order for organizational learning to occur, organizations must learn to unlearn. Managers should free the organization from obstacles that may be present in the unlearning process and these authors further argue that there should be a learning culture characterized by, namely, (i) receptiveness to experience, (ii) encouraging responsible risk taking, and (iii) the willingness to recognize flaws/errors. Thus, unlearning is a fundamental capability in learning organizations. Some reasons that cause employees to feel they are unable to unlearn can include levels of self-esteem prevalent and a punitive organizational culture where errors are punished. However, unlearning is prevalent in conscious and deliberate forgetting, converted into the ability to eliminate traditional but obsolete organizational knowledge. Furthermore, in order for the individual to learn, the organization should unlearn its old ways. The inability to forget may result in the inflexibility of thought, which inhibits change and results in a lack of positive criticism that challenges the traditional alignment of ideas, which Argyris (1990) refers to as defensive routines. Only when employees are aware that they should relinquish defensive routines, then the organization presents new knowledge creation processes (Huber, 1991).

According to the evolutionary learning perspective, organizational memory construct gains relevance because it can be both collective and social in nature and refers to that knowledge which is embedded in organizations and entails two main forms: (i) explicit knowledge or objectified social knowledge as well as (ii) collective or tacit knowledge (transformed by culture and non-coded routines). This organizational memory is nurtured through the dynamic process of learning to unlearn. Moreover, learning is a process of developing organizational memory (Akgün et al., 2007; de Holan et al., 2004). These authors identify beliefs, practices and artifacts as organizational components vital in the process of unlearning, because organizational learning is an evolutionary, continuous, cumulative, dynamic and interactive process. Therefore, organizational learning must simultaneously be concerned with (i) the process of unlearning and (ii) memory loss, factors which often lead to forgetting. The first factor leads to deconstructive route of (re) building or creating. The second factor is converted into lost and abandoned knowledge, with adverse effects on organizational performance and sustainability if forgetting is accidental and negligent. Therefore, according to Hedberg (1981), there is a need to separate forgetting into two opposing poles: (i) intentional and (ii) accidental. Intentional forgetting is deliberate and strategic, allows for evolutionary reconstruction and supports the entrepreneurial and innovative capacity in the organization (Srithika & Sanghamitra, 2009). In turn, accidental forgetting refers to the organizational capabilities that are lost due to negligent distraction, ignorance and/or incompetence, the very reason which de Holan et al. (2004) attributes to memory loss. In turn, the importance of deliberate forgetting refers to relinquishing and change, which occurs in the values, behaviors and practices considered obsolete for organizations. This has positive effects on organizational dynamics and performance. De Holan et al. (2004) maintain that unlearning entails relinquishing knowledge, values and deeply rooted practices with little relevance for the organization. Navarro and Moya (2005) corroborate that unlearning is a dynamic process, which refutes obsolete knowledge in order to exchange and/or convert it to more efficient knowledge. This evolutionary perspective of organizational knowledge is, according to Nonaka et al. (2001), known as a process of organizational relearning, where new structures replace outdated knowledge, leading to the implementation of innovation processes, based on freedom for experimentation, collaboration and interaction between individuals and the implementation of a reporting system free of 'guilt and/or punishment'.

The Learning Dynamics Debate

The Crossan et al. (1999) model of organizational learning, also known as 4I's model, identifies four key processes: (i) Intuiting (ii) Interpreting (iii) Integrating and (iv) Institutionalizing. The model focuses on the integration of three levels of learning, i.e. individual, group and organizational, with two paths of learning, ranging from the individual to the organization and also from the organization to the individual. However, individual learning does not guarantee organizational learning. It is therefore imperative that knowledge transfer prevails among individuals in the organization in order to facilitate its institutionalization and to understand and make these 4I's in the Crossan et al. (1995) model workable (Wang & Ahmed, 2003; Easterby-Smith & Araujo, 1999). Understanding the first process, known as Intuiting, occurs at the individual level and can be defined as the pre-conscious recognition of patterns and possibilities associated with the experience of the individual. This occurs when individuals recognize patterns in their present and past experiences and identify their potential in the workplace (Weisman, 2007). However, according to Castaneda and Fernández (2007), the Crossan et al. (1999) model has some limitations. The first stage relates to the belief that the process of understanding and Intuiting is considered the only process that explains individual learning. Nevertheless, Castaneda and Fernández (2007) maintain that most of individual learning occurs through a conscious process. These authors refer to the relevance of conscious processes in organizational learning, which is associated to the social cognitive theory as Bandura (1986) postulates.

The second stage, Interpreting, occurs both at individual and group levels. According to Crossan et al. (1999), Interpreting is the explanation of the process for self and others, which can occur via words, actions, ideas or insight. It is based on the fact that individuals reflect on their intuition and share this with others. This in turn, becomes knowledge transfer through interpretation, both at the collective and individual levels (Weick, 1995; Zietsma et al. (2002). The nonverbal intuitions are shared, preferably through face-to-face dialogue, images and metaphors (Crossan et al., 1999). However, when the 'new' way of thinking occurs it can have a significant impact on organizational performance, then the changes are institutionalized (Weisman, 2007). Moreover, Huff's (1990) encompassing viewpoint entails that individuals develop cognitive maps from their selected and interpreted contexts. This viewpoint is compatible with the concepts of the social cognitive theory,

formerly known as social learning theory or social cognitive theory (Bandura, 1983; 1986), which proposes a more comprehensive explanation of individual learning. Given its relevance, several advantages of the social cognitive theory (Bandura, 1986) include, on the one hand, the theory describes and integrates human cognitive capacities and their relationship with learning; on the other hand, explains the interplay between cognition, behavior and the surroundings as well as explaining how learning occurs in a social context.

The third process in the Crossan et al. model (1999), namely Integrating, can be defined as “the process of developing a shared understanding between individuals and to take coordinated action through mutual adjustment” (Crossan et al., 1999, p.525). Finally, the fourth process, that of Institutionalizing, is the “process to ensure the presence of routine actions, that is, the process of embedding learning that has occurred by individuals and groups, into the institutions of the organization including systems, structures, procedures and strategy” (Crossan & Bedrow, 2003, p.1090). These authors also consider that the consistency of this process promotes sustainability to the process of institutionalization and facilitates the occurrence of routine actions. This perspective highlights the importance of deliberate effort to internalize knowledge in the organization so that it persists and is repeated often enough in the short and medium term. Thus, it can be said that Institutionalizing is the process that distinguishes organizational learning from individual and group learning as it is through this learning that ideas take shape, become easily accessible to all employees and are transformed into organizational assets (Weisman, 2007). However, Zietsma et al. (2002) consider that the fourth phase in the Crossan et al. (1999) model has shortcomings; for this reason, Zietsma et al. (2002) developed a theory to expand on this weakness. They postulate an improvement by introducing a multi-level model of organizational learning theory, as depicted in the Zietsma et al. (2002) model, which shows significant changes in contrast to Crossan et al. (1999) model. An example of this improvement is seen at the individual level, labeled as Attending, which was added to the first level and is understood as the process of scanning the environment for information. Kleysen and Dyck (2001) postulated this process of Attending as a complementary process to Intuiting in the Crossan et al (1999) model. This improvement shows the importance that the effect of the environment has on learning (Weisman, 2007). Furthermore, Zietsma et al. (2002) corroborate the presence of Attending and demonstrate that an active and simultaneous process of experimentation occurs alongside the more cognitive process of Interpreting. In the Institutionalizing phase, facilitators include worn out support in relation to prior interpretation that has been institutionalized, which can be regarded of added value in relation to important values of trust and how organizational challenges are effectively solved (Weisman, 2007). At the individual level, according to Castaneda and Fernández (2007), this process of Attending is a significant improvement on the Crossan et al. model (1999) seeing that the majority of learning at the individual level occurs as a conscious process. According to Castaneda and Fernández (2007), learning necessarily includes other processes that can be identified in the context related to human capabilities (Bandura, 1986; 1997). Likewise, Zietsma et al. (2002) added a second process of learning known as Experimentation. Zietsma et al. (2002) maintain that “individuals and groups are constantly experimenting something and the results of their actions add substance to their cognitive interpretations” (Zietsma et al., 2002, p.63).

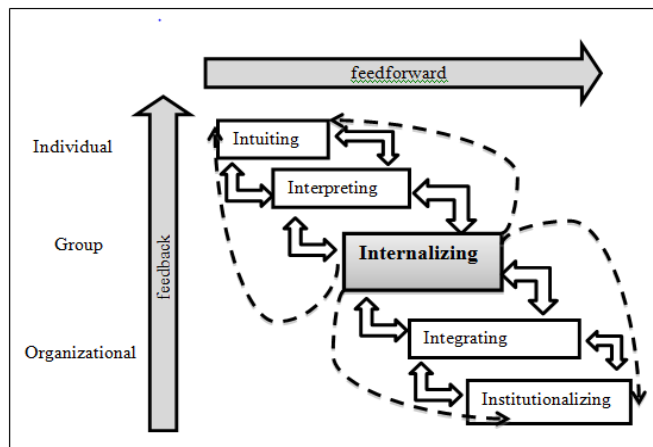
SELF-EFFICACY AND ORGANIZATIONAL LEARNING

Recent studies on organizational learning show a strong link between the constructs of self-efficacy and organizational learning. The perception of self-efficacy is a key component in the social learning theory (Bandura, 1977; 1977a; 1986). Self-efficacy is viewed as a value judgment on the quality of an individual's performance whilst carrying out actions in given situations (Bandura, 1983). Self-efficacy is, in turn, influenced by an individual's past performance both through observing others carrying out similar actions as well as through the individual's independent cognitive processing. Thus, self-efficacy is a key strategic element in achieving high levels of performance (Bandura, 1986). Furthermore, self-efficacy theory provides a conceptual framework that has been used by various schools of thought to understand individuals' behavior in relation to organizational performance.

According to Hackett and Betz (1981), self-efficacy has a positive impact at the individual level of trust and future career development. Bandura (1977a, 1986) divides the levels of perceived effectiveness into four groups: (i) scope of performance, (ii) diverse experiences, (iii) psychological states and (iv) verbal persuasion. Moreover, the range of performance provides information that influences efficacy. Therefore, according to Bell and Kozlowski (2002), a strong link prevails between self-efficacy and learning and Kozlowski, Gully, Brown,

Salas, Smith, and Nason (2001) observe a connection between performance and self-efficacy. Bandura (1977) also considers that a high level of self-efficacy allows individuals to address situations and complex tasks with perseverance and to display an adequate level of effort and commitment to overcome obstacles that may arise. Thus, self-efficacy is considered as the essential ingredient for structured organizational learning. This construct highlights the importance of tacit knowledge because it is conducive to analysis and reflection. This can be regarded as a capacity to share complex knowledge and therefore self-efficacy may well provide useful information on how people can share tacit knowledge. However, perceptions of self-efficacy result from judgmental process. Therefore, individual performance is influenced both by environmental and individual factors (Bandura, 1977). In developing perceptions of self-efficacy about the performance of any given situation, individuals embed these perceptions in their belief structures. This process is achieved through double loop learning (Argyris & Schon, 1978) which conveys core beliefs about our capabilities based on performance and feedback. Anderson et al. (2008) corroborate that learning and innovation depend on leadership efficacy, while Mumford et al. (2002) highlight characteristics of the leader, Anderson et al. (2008) in turn, demonstrate that leadership efficacy arises from unconventional and challenging behaviors. Thus Mumford et al. (2002) concur that innovation is created both from technical, business capacities and experience as well as from creative thinking skills. Given this discussion, we think that the Crossan et al. (1999) model can be further developed by including a 5th 'I', turning it into the 5I's model of organizational learning. This new 'I', labeled as Internalization, is the core because it is the capacity to unlearn. This includes a set of attributes, which is the basis for learning to unlearn; these include, namely, confidence and enthusiasm for reflecting, discussing, sharing and applying new knowledge, especially arising from the tacit dimension. This introspection enables employees to think and reflect aloud, so that others can share the thinking processes, understand their feelings and find more appropriate alternatives to organizational routines. This process requires introspection and ranking of routines and processes, eliminating the less relevant ones, learning to unlearn obsolete knowledge by changing routines, views, attitudes and behavior in the workplace. This may be a painful process because it takes individuals out of their comfort zone, due to the defrosting phase of organizational memory, in order to freeze with a different mindset and a different paradigm and dominant logic sets in. This is an organizational process that arises at group level and influences both individual and organizational learning. The cognitive dimension in this internalization process is less apparent than in those organizations with mechanistic and hierarchical structures. Herein lays the core of learning to unlearn because it welcomes knowledge screening procedures and places this knowledge on the conversion spiral and, later, to convert it into codified knowledge thus making it an easy process to achieve institutionalization.

Figure 1 The 5I's Organizational learning model



Source : Own, adapted from Crossan et al. (1999)

Internalization of knowledge is the essence of learning because that is where the majority of information flows and where group and/or teamwork can flourish. In view of it being tacit knowledge, its integration and institutionalization is dependent on previous preliminary work, which lies at the level of internalization. If this phase is missing, then integration and institutionalization that Crossan et al. (1999) postulate will not produce the

expected results nor will it become the foundation for creating new knowledge. Therefore, we advocate that the internalization process is an intermediate step that absorbs inputs, reflects upon and internalizes these, then allows it to be integrated into the organization and subsequently institutionalized, which increases the value of the organization's heritage. However, for this to occur, the level of internalization should be backed by a specific leadership which is associated with humanizing organizational values. Moreover, this feature allows for the inclusion of the self-efficacy construct to be introduced at the center of this model. This construct can be regarded as an umbrella notion encompassing a range of efforts needed to obtain the best possible results. Just as the model of Dimensions of the Learning Organization Questionnaire (DLOQ), developed by Watkins and Marsick (1997), measures the ability of learning at the level of individual, group and organizational and also views learning as a creative and evolutionary process. Moreover this DLOQ model is also essentially concerned with interaction, sharing, dialogue, skills, knowledge and balanced values at the human-organizational-societal level.

CONCLUSION

The research of Bandura (1997), Bell and Kozlowski (2002) and Kozlowski et al. (2001), demonstrate the relationship between organizational learning and the construct of leadership self-efficacy, which can be considered a structuring leverage channel for organizational learning. Zietsma et al.'s (2002) critique is of vital importance towards revisiting the Crossan et al. (1999) model notwithstanding the high popularity that it enjoys. There seems to be an urgent need to create instruments and indicators that measure the ability to unlearn at the individual, group and organizational levels. This ability to unlearn enables information to be converted into knowledge. It also facilitates internalization-the root for knowledge institutionalization. In fact, conscious learning through observation, assimilation, comparison and critical reflection on constructs, such as values, cultures, ideas and emotions, in order to retain information, motivate individuals in the ever constant quest for achieving assets which are imbued with high heritage value for the organization.

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TRADE PROMOTION AND EXPORT ASSISTANCE: DILEMMAS, TRENDS AND FUTURES

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ABSTRACT

Trade is a critical activity in any economy in the world. Trade is first and foremost expressed through a Trade Policy of a nation. Despite the rhetoric and benefits of “free trade” it is rarely “free”. Governments in developed and developing economies, through a range of measures, “interfere” with “free trade” through government trade policies, involvement, regulations, management and even promotion. One of the forms of government involvement in trade is its assistance to exporters often through entities termed Trade Promotion Organisations (TPOs). These TPOs come in different structures and have different reporting lines as no country has the same structure as another. At times they are official bodies inside large Foreign Affairs Ministries and in some cases they will be an attachment to a Commerce or Trade Ministry. They have an international presence often housed in Embassies and Consulates across the globe. They seemingly play a critical role yet they are an unknown entity to scholars and to the literature on trade. This paper seeks to explore their entity, role and dilemmas they face and what future activity they may play.

Keywords: Trade, trade policy, trade promotion, trade promotion organization, USFCS, Austrade

INTRODUCTION

Trade as a contributor to global economic growth has assumed significant proportions and for the most part of the post war period has grown at much stronger levels than has GDP growth. Leaving aside the economic growth of developing nations since 1945, the developed and mature markets have themselves shown trade growth at levels way beyond expectations. Between 1999 and 2009 world merchandise trade value increased by 73 per cent (European Commission 2010). Between 1950 until 2011 and especially after the mid-1970s trade growth increased 27 times while GDP for the same period only increased 9 times (IMF ND). In order for this to occur, the post war reconstruction approach required lateral thinking and the provision of appropriate institutions to foster this growth. Much of this reconstruction was focused on Europe for reasons of damage and economic decline as a result of the war. These new institutions such as the 1944 Bretton Woods agreement that ultimately created the European Reconstruction Bank which later became the World Bank as well as the International Monetary Fund (IMF). Trade more than any other economic indicator benefited from these new developments. Further much of the reconstruction was focused on Europe, which ultimately also benefited from the establishment of the Marshall Plan (European Recovery Program) as well as the global agreement of the General Agreement on Tariffs and Trade (GATT) in 1947. In 1995 GATT became the World Trade Organization (WTO). A few years later the first steps towards economic integration in the Coal and Steel Treaty between member state fathers of the future European Union. Europe in the immediate post war period was the laboratory for economic reconstruction and trade development. Despite all the good intentions to offer the narrative on free trade, Trade promotion organisations are needed because trade is first and foremost expressed through a Trade Policy of a nation. Despite the range of instruments for free trade, there is still a need for government to intervene thus the need for trade policy and trade promotion.

This paper examines the use, structures, jurisdiction and government approach towards trade promotion bodies in a global context. There is no single model of trade promotion organisations (TPO) and each country has different variations of trade promotion as well as structures of trade policy (Elvey 1990). In some cases the developing nations lack the resources and government reach to have such bodies. In other cases governments

may deem that they should not be in the business of promoting companies abroad and leave that task to the businesses own devices. Some of the evidence used in this paper relates to two trade promotion organisations – the US Commercial service and the Australia Trade Commission (Austrade).

WHAT IS TRADE PROMOTION?

What is a trade promotion organization (TPO), according to the International Trade Centre (Geneva):

“A TPO is an official or government body involved in trade promotion. It is also a type of trade support institution. They usually have their own network of foreign trade representatives offices, which are usually attached to embassies or consulates. Other trade support institutions may be operated by private organisations such as chambers of Commerce” (Intracen 2013: 4).

Countries may vary on their definition of trade promotion. One expert in the area was cautious about drawing up any meaning as they were all fraught with complexities and contradictions. He states:

“The short answer is that it’s very complex. Everyone is in on the act. Chambers of Commerce (sic) State Governments, industry associations, national governments, (sometimes with several different organisations such as US Foreign Commercial Service, and US foreign Agricultural Service), hybrid organisations are very common with industry/government participation. And whole field is very fluid ... Like Austrade morphing as it dropped EFIC took on Investment, now Tourism, Education. Relationships like Ausmine which was supposedly a private industry group but propped up by Government. That’s just a taste of the complexity” (Downey 2015).

The US has a specific trade promotion operation known as the US Foreign Commercial Service which it states is “The U.S. Commercial Service is the trade promotion arm of the U.S. Department of Commerce’s International Trade Administration” (ITA 2015). Frederick ascribed the key feature of the US FCS as being determined by “its people and its services” (1990: 60). The point was repeated by Smith (2015) entitling his chapter in the latest study of the Australian Trade Commission “Austrade’s Greatest Asset: Our people Shine Through”. In effect trade promotion is precisely this but has somewhat more specific and concrete meanings.

TRADE POLICY VERSUS TRADE PROMOTION

All Trade Ministries will have departments which propose, formulate and negotiate trade policy. Developing countries may approach trade from a standpoint of development while more developed nations may insert trade policy in terms of promoting their exports. In some cases this department may simply be a Department of Trade or it may be combined with another portfolio. In the case of Australia its “trade department” is located within the Department of Foreign Affairs and Trade (DFAT). However in order to provide prominence to this combination, the Australian government has seen fit to allocate two senior ministers as testimony to the two significant and even separate portfolios – one for Trade (and Investment) and the other to Foreign Affairs (but one Ministry).

Most governments today believe and assume that a pure free trade scenario does not exist and can only slowly be introduced. Free trade has many aspects to it not solely that of the actual act of exchange. Protection and subsidies of industries, export subsidies not to mention the multitude of protective mechanisms today come under the category of actual tariffs and invisible tariffs. Wild and Wild (2014) correctly ask

“Why do governments impose restrictions on free trade? In general, they do so for reasons that are political, economic, or cultural – or some combination of the three. Countries often intervene in trade by strongly supporting their domestic companies’ exporting activities. But the more emotionally charged intervention occurs when a nation’s economy is underperforming. In tough economic times, business and workers often lobby their governments for protection from imports that are eliminating jobs in the domestic market” (Wild and Wild 2014: 180).

Trade policy is a function which all nations have to one extent or another. They include the instruments at their disposal to ensure their products and services are able to compete in the global market. They are also the vehicle in which the specific good and the general good receives voicing including moments of protecting one’s own industry in the form of protectionism. The multilateral, regional and bilateral trade agreements obligate

nations to establish what trade interests they may have and with whom. The proliferation of trade agreements around the world is testimony to this occurrence. At times there is an acceptance of greater emphasis on multilateral approaches though this may change depending on the success of multilateral approaches. The stalling of the WTO objectives with the Doha Round is an example of an incentive to pursue other free trade agreements such as regional and bilateral free trade agreements.

In an attempt at a definition Feaver and Mahmood (1997) posit trade policy as a series of commercial policies adopted by a country. They state in an Australian context:

“Trade policy can be distinguished from industry policy in that industry policies are aimed at affecting changes to business activities within the domestic economy... On the other hand, the main target of trade policy initiatives are either countries or enterprises outside of Australia...Australia’s trade policy in recent years can be classified into three general functions: (i) market access (ii) trade promotion (iii) export and trade facilitation...” (Feaver & Mahmood 1997: 160-161).

What in effect is being posited here is the fact that trade policy on its own cannot make exports. A marketing effort to achieve success is needed. Having support for business in the market of interest is the kind of assistance business is looking for and is one of the key forms of trade promotion assistance which governments like the US and Australia have extensively developed. In the case of Australia over 70 per cent of the personnel are located overseas (Austrade 2014).

WHAT IS TRADE PROMOTION?

Trade promotion is another activity which some governments see as important and will directly seek to activate. Alongside possible trade policy approaches to foster and support trade from a specific nation, government can play a key role in stimulating international business activity in more specific hands on ways. The need is especially apparent in the case of smaller firms and new-to-export companies. Assistance may take many forms including: 1) Creation of a favourable climate and incentives for exporting; 2) assisting in overcoming foreign market entry barriers; 3) credit and financing for export sales; 4) timely information on foreign market opportunities, contacts and channels; 5) providing opportunities for exhibiting products overseas and meeting prospective customers (Lewis 1990: xiii).

The support financial programs most evident with programs such as the Australian Export Market Development Schemes (EMDG) a program designed to help specific marketing activities abroad and more important Export credit agencies (ECA), is a form of financing in support of exports. It takes the form of loans, guarantees, insurance and related technical assistance which are used to support export sales (Gianturco 2001: 2). Many nations have such a scheme and by way of example most OECD nations have such a scheme. Trade support also occurs in other ways. Australia for example utilised an exporters trade promotion grants, overseas support, market visits, trade exhibitions supports.

The role of trade promotion organisation is to support trade abroad and they are often referred to as the Foreign Trade Representatives (FTR). This form of organisation can come in different forms and agendas. The broad spectrum of representation can be in the form of career diplomats and embassy staff, specialised trade representatives attached to industry associations and government agencies, contractual staff working at embassies and trade offices, expatriate trade specialists working for a trade supporting institution and all other possible variations of the above. FTR’s will have dealings with many organisations to render their work more effective which include: 1) export promotion bodies at all government levels, 2) financial institutions, 3) industry associations and Chambers of Commerce, government bodies with a trade interest, 4) including customs., 5) quarantine, 6) health, 7) industry development, 8) tourism, 9) agriculture, 10) media, 11) shipping and freight companies, 11) trade consultants, 12) trade fair organisers, 13) and educational bodies. These activities will exist both in the home country and in the country where the trade promotion is occurring (Intracen 2013: 11).

Table 1 - The tasks of Foreign Trade representatives and the allocation of responsibility

<i>Trade policy</i>	<i>Liase with Post government regarding trade policy issues; Research opportunities which might emerge from changes to policy; Research and report on trade barriers; Represent the country at high-level industry or government meetings;</i>
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	<i>Act as an official observer at high-level meetings where the home country might not be a member of the group;</i> <i>Develop close relationships with various trade-related ministries.</i>
<i>Embassy representative</i>	<i>Prepare economic reports on the Post country;</i> <i>Provide economic and commercial advice to the ambassador;</i> <i>Provide commercial insight to other home-based government agencies on issues such as technology, education, and tourism;</i> <i>Organise events for other government agencies which might have a commercial or industry angle;</i> <i>Represent the country on various national days or celebrations.</i>
<i>Trade Supporting institution representative</i>	<i>Provide commercial intelligence;</i> <i>Advise the trade support institution on trade strategies;</i> <i>Deliver the trade supporting institution strategy in the post country;</i> <i>Provide positive news stories and case studies for the trade supporting institution;</i> <i>Provide input into national customer or customer relationship management (CRM) systems;</i> <i>Be a speaker at trade supporting institution events in home country;</i> <i>Contribute to national exports plans.</i>

Source: Adapted from Intracen 2013.

The nature of these organisations which assume the name of foreign trade representatives can be complex as they can be diverse.

The rationale for public trade promotion measures is based on the observation of market failures and the idea of creating positive externalities. All economic transactions imply so-called transaction costs. In international trade, some transaction costs are significantly higher than when carrying out business in the domestic market: For example, information about foreign consumers is less readily available, foreign jurisdictions might apply different product standards which can pose technical barriers to trade, or transporting goods becomes more expensive and hazardous with increasing distance.

Table 2 - Types of trade support institutions

Type of trade institutions	Tasks and responsibilities	Special comments
<i>General</i>	<ul style="list-style-type: none"> ✓ <i>Trade promotion organisations (TPOs).</i> ✓ <i>Ministries dealing with export development.</i> ✓ <i>Chambers of Commerce and Industry.</i> ✓ <i>Economic development agencies with an export focus.</i> ✓ <i>Regional economic groupings with an export focus.</i> 	<i>These institutions are most likely to maintain a network of Foreign Trade Representatives (FTRs).</i>
<i>Sector specific</i>	<ul style="list-style-type: none"> ✓ <i>Trade associations.</i> ✓ <i>Exporters associations.</i> ✓ <i>Other chambers (sector specific).</i> ✓ <i>Sector based organisations.</i> 	<i>These institutions are most likely to maintain a network of Foreign Trade Representatives (FTRs).</i>
<i>Function specific</i>	<ul style="list-style-type: none"> ✓ <i>Export credit and financing bodies.</i> ✓ <i>Standards and quality agencies.</i> ✓ <i>Export packaging institutes.</i> ✓ <i>International purchasing and supply chain bodies.</i> ✓ <i>Training institutions.</i> ✓ <i>Trade law and arbitration bodies.</i> 	

Source: International Trade centre, Geneva.

THE PHILOSOPHY OF “BUSINESS WELFARE”

Equally governments question whether they should be helping business to conduct its business. In some nations they even call it “business welfare”. At times the whole philosophy of government interfering in the economy, whether it be through industry assistance or even export support is strongly questioned. In the US right wing Republicans (Tea Party manifestos) question the very point of government keeping out of the economy and of the path of business. It is with this logic that in 1995 a proposal before Congress was to abolish the Commerce Department's United States and Foreign Commercial Service and return primary responsibility for overseas commercial work to the State Department.

This was not unlike what would be proposed in an Australian scenario where in May 2014 the government appointed Commission of Audit recommended the removal of numerous bodies (like Austrade) which in some cases promoted business to export. The Commission of Audit called for the scrapping of the Export Market Development Grants and as well as the Export Finance Insurance Corporation (EFIC). The Audit Commission found that Austrade should be incorporated within the Department of Foreign Affairs and Trade as it was assisting a relatively small level of export sales. The National Commission of Audit recommendation under the category of ‘assistance to Exporters item number 33’ reads as follows:

“As the benefits of exporting accrue primarily to the business undertaking the activity, the Commission considers that there is scope to reduce current Commonwealth assistance for exports by:

In one such case it stated:

Abolishing EFIC, ceasing funding for Export Market Development Grants, tourism industry grants and the Asian Business Engagement plan, halving funding for Tourism Australia and significantly reducing the activities of Austrade: and moving residual functions of Tourism Australia and Austrade into a commercial arm of the Department of Foreign Affairs and Trade, with existing loan book of the Export Finance and Insurance Corporation also transferred to DFAT to investigate options to on-sell or wind up the loans” (NCOA 2014).

The view espoused in some governments is that where export benefits “accrue to the business undertaking the activity”, it is difficult to justify that government subsidise that activity when the profits of that activity do not return to government. That is, the Australian Commission of Audit questioned why any support should be provided when the benefit goes to the individual company. This growing economic rationalism suggesting more and more that government should become “less involved in the economy” is a sentiment which is certainly not going away. While in the case of the US 1995 Congress recommendation was not accepted and the Australian case of the Audit Commission recommendation equally ignored, the fact that the suggestion is made is a sign of the times. It can only be said that these organisations are on notice and their effectiveness and value is deeply questioned. There is little doubt that trade promotion organisations (for exports and investment) suffer from credibility and performance measurement indicators. As noted by Czinkota and Cavusgil (1990:236) “In this age of budgetary constraints, however, streamlined and rational use of government resources is necessary”. One of the greatest obstacles to the enhancement of trade promotion is measuring its effectiveness. This is not easy to do. At times it is this difficulty in measurement of trade promotion which in difficult times for some governments, leads them inexorably towards reducing the expansion of these organisations and in some circumstances even closing them down. Dodds (2015) in a recent study stated in some respects the obvious when seeking to measure performance of TPOs when they are government. He stated they required “relevance”, “able to be measured” and “be measured objectively”. The point here is that for TPOs, despite the fact they are working with business are still paid civil servants and the cost of these operations is borne by government. As governments are fearful about government expenditure they are careful when it comes to expenditure. There have to be the three elements which Dodds indicates in order for an organisation to add value using the public purse. Governments find that these organisations can be expendable, as in the US and Australian cases, once the government purse is questioned. It can only mean that these organisations suffer from a value measurement indicator.

EXPORT PROMOTION AND INVESTMENT ATTRACTION

It would appear that marketing a nation's exports and promoting a nation as an investment attraction is becoming an activity of greater importance. Having a pro-active trade policy and quality goods and services might be of no value if the world is unaware of them. As such trade promotion organisations engage in one of the basic aspects of business which is the direct marketing and trade promotion. Here the role can sometimes be very direct and even specific contact with potential sellers along with potential buyers in export markets. The case of Australia's Australian Trade Commission (Austrade), the US Foreign Commercial Service (USFCS), are but two examples of this specific trade promotion. The establishment of Austrade in 1986 separating the trade promotion from the trade policy area was undertaken specifically to acknowledge the necessity of going beyond setting the policy settings and being more concrete and specific in terms of assisting companies to export and especially in market support i.e. overseas (Mascitelli 2015). It must also be noted that current division of labour within the European Union trade portfolio is that trade policy is the jurisdiction of the European Union while trade promotion is the responsibility of the specific member states. A similar approach was provided by Frederick in his diagnosis of the American USFCS and its reasons for being established and its role. He states:

"The ...Foreign Commercial service (USFCS) was formed in 1980 in response to requests from the private sector for a government agency that could effectively assist US business overseas....The USFCS is a classic marketing services organization designed to represent US business interests around the world, assist US multi-national representatives in a country, and fulfil the role of an international marketing division for companies that do not have such an organization" (Frederick 1990: 60).

Most trade promotion organisations are aimed at small and medium enterprises (SMEs). Elvey noted in her comparative study of eight trade promotion organisations (Japan, South Korea, Singapore, Italy, Canada, West Germany, France and the UK), that while they differed in almost every other aspect they all focused their trade support and assistance towards SMEs (Elvey 1990: 139). Moreover some trade promotion activities were primarily channelled through private entities more so than public. The case of West Germany in this Elvey study noted this. Most other countries tended to have public entities manage the trade promotion activities of their nation.

CONCLUSION

It is acknowledged by many that governments have a role to play in trade promotion for their national firms. On the whole the support will be provided mostly to SMEs. This support should come in the form of trade policies, market access initiatives, improved export opportunity awareness campaigns and other trade supporting policies. Often this can only be undertaken through trade promotion organisations. The theme of trade promotion organisations is a new and poorly discussed entity in international business. Most commentary emerges from the profession and from the media. Little scholarly discussion is to be found on this matter. Moreover it is a difficult entity to define and has no consensus in the governments as to what its exact nature should be. One thing they all do have in common is their task of promoting exports and trade with their home country with global markets. Whether these organisations are the best approach towards promotion of home grown exports is difficult to quantify or to measure. Moreover many of these entities are run by government and civil servants and therefore not necessarily by the most appropriate business savvy people. Equally important and unresolved is the effectiveness of these organisations and whether they make a real difference to the number of exporters, the value of exports and its contribution to overall trade. Equally how is it that such organisation as occurred with the US Foreign Commercial Service in 1995 and the Australian equivalent (Austrade) in 2014 are set up by their respective governing body for elimination when they deemed important? Much is needed to be addressed on this matter and this paper is but a start.

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AN EXAMINATION OF LEGAL AND ETHICAL FRAMEWORKS FOR PROTECTING DISPLACED PERSONS PARTICIPATING IN HEALTH RESEARCH IN AFRICA

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ABSTRACT

Different countries in the world often face displacements arising from various causes, including wars, disasters, etc. Africa has not been an exception, and in fact has at some stage been the hardest hit. The displaced persons get exposed to a variety of risks, including being subjected to harmful research practices. It is indisputable that protection of research participants, of any population, is important. Research on humans, more in particular health research, sometimes results in the injury or death of participants. Though the African continent has a number of human rights instruments at continental, sub-regional and national levels, these instruments hardly focus on the protection of research participants, more in particular those as vulnerable as displaced persons. This therefore leaves, at the level of regulatory and theoretical framework, uncertainty in this area of the field. An investigation into the adequacy of protection mechanisms of participants therefore becomes important, more especially if it relates to the protection of vulnerable populations like displaced persons. Equally important is a search for an appropriate theory and principle to guide protection mechanisms, more especially in the African context. This research, aimed at addressing these issues, is therefore important. It will be useful for policy makers, both at the level of government, continental level and micro-institutional level (e.g., company level policy making). At international level (beyond the African continent), given that literature review shows absence of adequate specific regulations for displaced persons, this may also be a useful guide to craft frameworks, more in particular when there is an added contribution from a different theoretical approach to the subject. In addition, the study seeks to make an intellectual contribution to the field of bioethics, medicine, public health and law, in an integrated context.

Keywords: Displaced persons; health research; participants; vulnerability and ethics

INTRODUCTION

The paper is about the protection of vulnerable populations like displaced persons, who participate in health research. The paper investigates the existence of legal and moral frameworks dealing with the protection of research participants, more in particular displaced persons on the African continent. In the process the paper in turn further investigates any gaps and inadequacies that might exist within the framework. The paper argues that there is inadequate protection framework for research participants in general and more in particular for displaced persons. The paper, in the end, recommends a more protective framework, at continental level, which will trickle down to national level.

The paper further investigates what the most plausible theoretical approach and principle should be to guide the framework. The paper finds the justice approach and communitarian approaches like Ubuntu to be the most plausible for the context of the study. These principles will be augmented by other principles, most of which are already applicable to research participation contexts, though for other categories of research participants than displaced persons. Paper uses an interdisciplinary approach, combining both legal and ethical

theories in tackling the problem under investigation. It also draws on other principles from medicine and bioethics.

CONCEPTUAL CLARIFICATION

In the study, the following concepts and expressions, unless the context otherwise indicates, bear the meanings described below:

Displaced persons. These are persons who have been forced by circumstances beyond their control, to move out of their usual place of residence. The circumstances may be natural disaster, wars and related calamities (homeless persons who became homeless because of these calamities will also be considered displaced for the purposes of the study). Though most regulations and conventions tend to make a distinction between internally displaced persons (those not moving out of the border of a country) and externally displaced persons (those moving beyond out of the border of a country), for the purpose of protection in research participation, the distinction regarding the form of displacement does not make a significant difference (for general information relating to displaced persons, see *the African Union Convention for the Protection and Assistance of Internally displaced persons in Africa* (2009). As the name denotes, the Convention only focuses on internally displaced persons)). The study therefore does not make the distinction between these categories of persons. Forced migrants, who are usually covered by different frameworks from those covering internally displaced persons, are therefore covered in the definition of displaced persons, as used in the study.

Health research. This is as defined in Health Research Ethics Guidelines, as used by the South African Department of Health, and the definition is developed by the *US National Commission for the Protection of Human Subjects* (Department of Health, 2004, p.1). It says (Department of Health, *ibid*):

A research project generally is described in a protocol that sets forth explicit objectives and formal procedures designed to reach those objectives. The protocol may include therapeutic and other activities intended to benefit the subjects, as well as procedures to evaluate such activities. Research objectives range from understanding normal and abnormal physiological or psychological functions or social phenomena, to evaluating diagnostic, therapeutic or preventive interventions and variations in services or practices. The activities involved in research may be invasive or non-invasive and include surgical interventions; removal of body tissues or fluids; administration of chemical substances or forms of energy; modifications of diet; daily routine or service delivery; alteration of environment; observation; administration of questions or tests; randomisation; review of records etc.

Vulnerability (including related concepts like vulnerable). This refers to a situation of greater exposure to risk of abuse and exploitation, as a result of lack of, or limited, capacity to decide for oneself.

LEGAL AND OTHER FRAMEWORKS DEALING WITH THE PROTECTION OF DISPLACED PERSONS PARTAKING IN RESEARCH

National level

Constitution of the Republic of South Africa

In the context of South Africa, the main law applicable is the Constitution of the Republic of South Africa, 1996 (the Constitution), which is the highest law of the land, therefore making any law inconsistent with it invalid, to the extent of the inconsistency. Section 12 of the Constitution prohibits the conduct of medical experiments without informed consent of the participants. The provision, however, is generic, and therefore does not specifically focus on the protection of vulnerable research participants, more especially those displaced. Other provisions like sections 10 and 14, which deal with human dignity and privacy respectively, can also be useful in

the protection of displaced persons. Section 9 of the Constitution can also play a role where the displaced persons partaking in health research are treated differently from other categories of participants, with the result that more burdens are unfairly placed on them more are placed on other categories of persons.

National Health Act 61 of 2003

The *National Health Act 61 of 2003* (NHA) makes provision for the protection of research participants, more especially in situations where capacity to give informed consent might be lacking. Section 7 of the NHA, for example, makes provision for consent by users. This provision could be adapted for instances where users participate in the context of research. The section also makes provision for instances where consent can be dispensed with, or be given by another authorized person (section 7 (1) of the NHA)). Section 8 of the NHA also provides for the right to participate in decision-making. This provision could also be used in the context of research, to give a research participant some power in making choices affecting him. A provision of the NHA more specific to research participant protection is section 71 (1), which provides for the research to be conducted in a prescribed manner and with the consent of the participants. The section further regulates the protection of children participating in research (for therapeutic purposes), where consent of the minor on the one hand, or parent or guardian, on the other, is required, depending on the level of understanding of the minor (section 71 (2) of the NHA)). The section further makes provision for instances where Ministerial consent may be refused (section 71 (3) (d) of the NHA)). Sections 72 and 73 of the NHA make provision for the monitoring of research participant protection, through National Health Research Ethics Council and Health Research Ethics Committees, respectively. The limitations in the Act are that the Act is more generic, and does not specifically focus on the protection of research participants who are displaced, who have an added risk exposure.

Children's Act

The *Children's Act 38 of 2005* (the CA) generally makes provision for the protection of children in all matters affecting them. The CA gives effect to section 28 of the Constitution. The CA does not make specific provision for the protection of children in research context. Some provisions however, are adaptable to research participation setting. The provisions more relevant are those relating to the protection of children in the context of health decisions (subsections 129 to 134 of the CA). The same applies in the case of the sections dealing with the best interest of the child standard, namely sections 7 and 9 of the Act, which are also relevant. The provisions of the CA remain relevant in the context of the study, as displaced persons also include children.

Department of Health Research Ethics Guidelines (2004)

Apart from the legislations discussed above, there are also other regulatory instruments short of legislation, the most important of which is the *Health Research Ethics Guidelines (2004)* (HREG). These are guidelines developed by the Department of Health, through the National Health Research Ethics Council. These guidelines, which are more detailed, also do not make mention of the protection of vulnerable participants who are displaced. This is despite that HREG specifically mentions other types of vulnerable participants (Department of Health, 2004, pp.20 and 53). For further omission, also see the Preamble by the once Minister of Health, Manto Tshabalala-Msimang (Department of Health, 2004). The paper does not however suggest that broader interpretation of these instruments does not include displaced persons, but that the absence of express inclusion places them in more disadvantageous situations than the rest. Very little attention is paid to them, yet their situation appears more risky than the rest of the category of research participants.

Continental level

The African Charter on Human and People's Rights (1986)

The *African Charter on Human and People's Rights (1986)* (the African Charter) is the main continental instrument on human rights issues. The African Charter, just like many other legal instruments at continental and sub-regional level, does not make any specific provision for the protection of research participants. The best the

participants can do is to rely on more generic provisions applying in other settings, for example, the right to dignity, the right to liberty, etc. This makes it difficult for researchers and participants to know what the parameters should be for research taking place on the continent (as there might be countries that also do not have clear local regulations). A provision slightly more specific about research setting is from the *Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa* (2003) (the Protocol to the Charter). The provision 'prohibits all medical and scientific experiments on women without their informed consent' (art 4(2) (h) of the Protocol to the Charter). Though this is comparatively better than most other continental (African) instruments, it is still very thin on relevant detail. It also does not touch on displaced persons partaking in research.

The African Union Convention Governing the Specific Aspects of Refugee Problems in Africa (1969)

The African Union Convention Governing the Specific Aspects of Refugee Problems in Africa (1969) (the AU Refugee Convention) says nothing about the protection of refugees (considered externally displaced persons in the context of the study) who partake in research. The best the AU Refugee Convention comes nearer to dealing with protection is through its non-discrimination provision (art IV) and its appeal to humanitarian approach in its preamble. These are however more generic provisions not dealing directly with the protection of research participants. *The African Union Convention for the Protection and Assistance of Internally Displaced Persons* (2009) (the AU Convention for Displaced Persons) also does not directly touch on the protection of research participants. The above are some of the gaps identified with respect to the protection of research participants involving displaced persons.

International Level

The United Nations Convention relating to the Status of Refugees (1951) (the UN Refugee Convention) deals with the protection of refugees. The UN Refugee Convention, just like most of the African instruments, also does not touch on the protection of research participants. An international instrument that directly deals with the protection of research participants is the *WHO's Standard and Operational Guidelines for Ethics Review of Health-Related Research with Human Participants* (2011) (the WHO's Standard). The guidelines remain, however, generic in the way they handle health research issues. They do not specifically focus on the protection of research participants who are displaced. At this level an instrument that also specifically touches on research participant protection is the *International Covenant on Civil and Political Rights* (1966) (ICCPR), under the auspices of the United Nations. The instrument however, falls short of focusing on vulnerable research participants, and in particular where it involves displaced persons (art 7 of the ICCPR).

Apart from the international bodies, whose membership consists of states, there are also non-governmental bodies, mainly professional bodies, operating at international level. These bodies have their own frameworks for their own members. The World Medical Association has its own guidelines, namely, the *Declaration of Helsinki* (1964). Though the guidelines of the *Declaration of Helsinki* are more detailed, they too do not focus on displaced persons involved in research. Another instrument of this type is the *International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use* (Good Clinical Practice. *Guidelines for Clinical Trials* (1996) (the ICH), which is a voluntary body providing health research guidelines for the European Union (EU), Japan and the United States of America. This instrument specifically includes homeless persons (who the paper treats as including displaced persons) and refugees, as part of the definition of vulnerable subjects (para 1.61 of the ICH). It does not however go further than this provision, with respect to displaced persons. This is also an influential instrument internationally, given that most of the research and funding come from signatories to the instrument.

Another important instrument is *International Ethical Guidelines for Biomedical Research Involving Human Subjects* (2002) (CIOMS), prepared in collaboration with WHO. CIOMS, though generic in nature on research protection, does make mention of homeless persons, refugee or displaced persons in its classification of vulnerable persons (Guideline 13 of CIOMS). CIOMS however only mentions these categories of persons as other vulnerable groups, signaling that these categories of persons are not the main focus of the regulations.

The above discussion shows that most of the instruments from national to international level do not make provision for the protection of displaced persons who partake in research. Even those instruments that do make mention of displaced persons do not adequately provide for the protection of such categories of persons. The existing information is also very scattered, making it difficult to apply them coherently. The gaps are even more apparent on the African continent. This creates major risks for those partaking in research in that part of the world.

Ethical theories and principles governing research participant protection

There are different ethical theories and principles governing the protection of research participants. The *US National Commission for the Protection of Human Subjects (1978)* (the Belmont Report) recognizes three broad principles applicable to health research context, namely respect for persons, beneficence and justice (Beauchamp, 2008, p.151). Beauchamp and Childress (2001) also recognize the fourth principle, being the principle of non-maleficence i.e., avoiding harm (Moodley, 2011, p. 63). Ezekiel, Wendler and Christine (2008, p.123) further categorize the principles into eight, namely community partnerships, social value of the research, independent review by review bodies like Research Ethics Committees, scientific validity, risk-benefit balance, fair participant selection, respect for persons, and informed consent.

The HREG also identifies a number of principles to consider around the protection of research participants (Department of Health, 2004, p.3). Most of these principles are as covered above by Ezekiel et al, though now divided into more narrow categories (about 17 of them). The paper however considers the categories to be the following: Technical framework (focusing on issues of competence, care and skill, relevance of the research, scientific merit of the research, etc.), justice and equity framework (including social justice), rights' framework, and ubuntu framework. These four categories are however broader in scope than the above-mentioned. The broad categories already cover most of the principles above, but with a different emphasis. For example, respect for persons and informed consent (and even certain dimensions of fair participant selection) are considered in this paper to be part of the rights' framework. The justice and equity framework could also emphasize the social justice dimension, which current theories don't appear to emphasize, but instead emphasizing the individual or personal justice. The need for independent review of protocols is an aspect covered under the justice and equity framework. Such a need is intended to improve on the protection of research participants, more especially those more vulnerable (displaced persons in particular). Ubuntu framework could also here cover stakeholder participation as a principle.

In addition to the principles above, there are other ethical theories and principles which can be of importance in assessing the best way to protect research participants. Of importance for consideration here is Mill's harm principle, as developed by Stuart Mill, which states that authorities and society can only interfere in the life of an individual in order to prevent harm to others (and not to the person himself). This has implications in the context of the protection of the vulnerables, which can be seen as some form of legal and moral paternalism, which Mill's principle is not in favour of. Another theory of importance is utilitarianism, which assesses the rightness of actions on the basis of the goodness or badness of the results that the actions produce. This approach, because of its less emphasis on the protection of the rights of the participants, might not be the best suited for the protection of displaced persons.

Another theory is deontology, whose well-known variation is Kantianism, as developed by Emanuel Kant. Some of the principles already mentioned above, namely respect for persons, informed consent, etc. are derived from, or closely related to, Kantianism. Its principles are therefore suitable for the protection of research participants. However, though Kantian principles do go some way in assisting in the protection of research participants, they may not be the best principles for the protection of displaced persons who participate in research, due to their special type of vulnerability. An appropriate approach for the protection of displaced persons who partake in health research therefore needs to be found.

The candidate principles that need to be explored for their suitability are the justice (which is read as including equity) and communitarian approaches. The justice approach requires that burdens and benefits in research be fairly distributed. In the context of this paper, it will require that the recruitment of research participants be done in a just manner. For example, the recruitment of displaced persons for research purposes

should only be done if there is no other suitable category of participants. The justice approach will also ensure that the research participants are not exploited. The communitarian principles, including Ubuntu (an African principle meaning that a person is a person through others), will ensure that researchers bring in the empathy and compassion elements, which are necessary for the protection of the most vulnerable in society.

CONCLUSIONS AND RECOMMENDATIONS

The paper had to look at the existing legal and ethical frameworks concerning the protection of displaced persons participating in research, more especially within the African continent. Serious gaps in the regulations concerning the protection of displaced persons, more especially within the African continent, have been identified. There is therefore a need for the African continent, through the AU, to come up with regulations that protect displaced persons partaking in research. With regard to the ethical framework, the paper found some of the existing ethical theories inadequate for the protection of displaced persons partaking in research. The paper found both the justice and communitarian approaches suitable for the protection of displaced persons in research. The paper therefore recommends the application of these two approaches, in addition to other existing principles. A new framework, based on these approaches, will assist researchers and managers of research organizations in acting appropriately when conducting research.

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GENDER TESTING CONNECTED TO SPORTING EVENTS: AN EXAMINATION OF SOME LEGAL AND ETHICAL ISSUES

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ABSTRACT

For a number of years, gender testing relating to sporting events has been a controversial issue. It raises both legal and ethical issues. In instances where it occurs, it is used for purposes of determining eligibility to participate in some sporting events, mainly where the participation is based on gender classification. The testing can therefore prima facie appear justified. It however still raises questions of discrimination based on gender and sex. It can also raise constitutional issues around sexual orientation. The Constitution of the Republic of South Africa, 1996, prohibits discrimination on the bases of gender, sex and sexual orientation. Various other legislations, e.g., the Promotion of Equality and Prevention of Unfair Discrimination Act 4 of 2000, support the constitution in the prohibition of unfair discrimination. International instruments like the Universal Declaration of Human Rights (1948) also prohibit unfair discrimination on a number of grounds. These instruments may therefore discourage certain discriminatory practices relating to gender and sex. This paper seeks to examine the legal and ethical issues surrounding gender testing connected to sporting events. The paper assesses the adequacy of the existing legal instruments in South Africa in protecting sportsmen from unfair discrimination. Some international instruments are also referred to, so as to assess their relevance and adequacy in this regard. The existing ethical framework and its adequacy are also looked into.

Keywords: Gender; testing; sport; privacy; dignity

INTRODUCTION

Gender testing has for years been mired by controversies. These controversies, it appears, have also influenced the International Olympic Committee (IOC) to come up with regulations dealing gender testing for the 2012 Olympic Games (Amand 2012: 1). According to the Preamble to the IOC Regulations on Female Hyperandrogenism (IOC Regulations) (as discussed below), gender testing in the context of eligibility in sport entails identifying ‘*circumstances a particular athlete will not be eligible (by reason of hormonal characteristics) to participate in 2012 OG Competitions in the female category.*’ This seeks to examine both legal and ethical issues relating to gender testing, from a South African perspective. The paper looks at the South African common law, the legislative framework, the constitutional framework and the international legal framework, and then examines their relevance in relation to gender testing. The paper then looks at various ethical theories, and examines their relevance in relation to gender testing. The paper finally proposes a framework within which gender testing should take place.

EXPOSITION OF THE LEGAL FRAMEWORK REGULATING GENDER TESTING

Common law framework

From a South African perspective, a person facing gender testing could possibly have a delictual action against those involved, on the basis of the common law right to dignity. This could be so if the person considers the gender testing as insulting or belittling him or her (Neethling & Potgieter, 2010, p.346). A delictual action founded on the violation of the right to privacy is also possible. This could be the case in instances where a person's private life, as a result of gender testing, becomes accessible to outsiders in instances where the person did not authorize the access (Neethling & Potgieter, 2010, p.347). The violation could take the following form: where the outsider intrudes or where the outsider reveals the information to third parties (Neethling & Potgieter, 2010, p.348). Revelation to third parties, by a person who had authorized access to the information with the expectation of maintaining confidentiality, constitutes a violation of confidentiality (Neethling & Potgieter, 2010, p.349). Breaches of confidentiality are very likely in the context of gender testing done with a view to assessing eligibility to participate in a particular competition. The information is very unlikely to remain with the testing doctor alone, as the information has to be used to assess the eligibility. The information will therefore have to change many hands in this regard, therefore risking unwarranted disclosures. Privacy violation could also take place where the mass media publicises the private facts about a person (Neethling & Potgieter, 2010, *ibid.*). In the context of gender testing this could happen where the media publicises the results of the test, usually in instances where a person failed the test. The publication of the private facts could embarrass the person tested. However, there are possible grounds of justification (defences), on the part of those committing the wrongful acts above, against delictual actions directed at them. The grounds of justification relevant for the types of acts above are acting under statutory authority and giving valid informed consent to the wrongful acts (Neethling & Potgieter, 2010, pp.103-109). In the case of the defence of statutory authority, where there is a legislation authorizing a person to perform a particular act, which would otherwise have been wrongful but for the legislation, the action will instead be lawful (Neethling & Potgieter, 2010, p.109). It is here submitted that any other legal instruments with similar force as legislations, e.g., IOC Regulations (as discussed below), might have the same effect, i.e., making an act that would otherwise have been wrongful, lawful. Those testing the athletes could therefore possibly rely on the fact that they have been authorized by the IOC Regulations to conduct the tests, and therefore escaping liability. For them to succeed with the defence, they must, however, show that the statute (in this case the regulations) authorized the conduct, and that the defendants acted within the confines of the authority, as provided for by the instrument concerned (Neethling & Potgieter, 2010, p.109).

Regarding consent, the defendants (in this case those involved in gender testing), would justify an otherwise wrongful act by showing that the plaintiff (in this case the athletes tested) did validly consent to the test. The defendants will however have to prove that the requirements of valid consent have been met (for requirements of valid consent, see Neethling & Potgieter, 2010, p.106). It is doubtful if the requirements for valid consent are likely to be met in the context of gender testing for determining eligibility to partake in sport, given that the sportsmen to be tested are unlikely to have any other option but to have the test. In other words, the consent is unlikely to be voluntary.

Legislative Framework

An important legislation of relevance to gender testing, more in particular in relation to discrimination, is the Promotion of Equality and the Prevention of Unfair Discrimination Act 4 of 2000 (PEPUDA). The Act, as the name denotes, prohibits unfair discrimination, while also promoting equality. It prohibits discrimination on various but usually arbitrary grounds, including race, sexual orientation, sex, gender and disability (section 1(a) of the PEPUDA)). In terms of section 1(b) of PEPUDA, the prohibited grounds also include any other ground causing or perpetuating systematic disadvantage, undermining human dignity or adversely limiting the *'equal enjoyment of a person's rights and freedoms in a serious manner that it is comparable to discrimination on a ground in paragraph (a)'*.

Gender testing could easily fall foul of this legislation. Any testing that is likely to unfairly discriminate against persons on the basis of gender, sexual orientation, genetic dispositions and related grounds could at face value be seen as being in conflict with this legislation (also see section 8 of PEPUDA, which specifically deals with different forms of unfair gender discrimination). This could then require some justification, indicating why such discrimination could be considered fair. In this regard section 13 of PEPUDA places the onus on the

respondent (in this case those doing gender testing) to prove that the discrimination is fair, once the applicant shows that there was some discrimination on the basis of any of the prohibited grounds. In determining the fairness or otherwise of the discriminatory nature of the act in question, section 14 of PEPUDA provides for a number of factors to be considered, namely, whether the discrimination undermines or is likely to undermine human dignity; the social position of the complainant (e.g., whether he hails from a society or grouping with systematic disadvantage); whether there is any legitimate purpose to be achieved by the discrimination; whether there are less onerous means to achieve the same purpose, amongst other factors. Gender testing should therefore be more justified than being a random requirement imposed on athletes. This legislation mirrors the provisions of section 9 (the equality clause) of the Constitution of the Republic of South Africa (1996) (the Constitution), which is discussed below.

Another legislation critical to gender testing could be the Promotion of Access to Information Act 2 of 2000 (PAIA). PAIA makes it possible for anyone who requires information held by a public or private body to supply such information, upon request, if such information will be useful for the requester to exercise his rights (section 9 of PAIA). In terms of section 11 of PAIA, read with section 50 of the same Act, a requester must be given access to the requested information if he complies with the prescribed procedural requirements under the Act, and provided that such access is not debarred from disclosure under any other provisions of the Act. In the discussion of common law above, the paper points out that privacy, including confidentiality of information, are grounds upon which a delictual action can be instituted against a wrongdoer. PAIA, despite providing for access to information, also gives some protection to information concerning the privacy of individuals, or some confidential information (for protection of information requested from public bodies, see section 34, read with section 37 of PAIA. Further see section 63, read with section 65, for the protection of information requested from private bodies). The protection of privacy, including confidentiality, is however not absolute. Section 46, read with section 70, of PAIA makes provision for mandatory disclosures on the ground of failure to comply with the law, serious public safety or environmental risk, and on public interest grounds (where public interest considerations outweigh the harm to be caused by the disclosures).

While PAIA makes provision for access to information, which can arguably entitle other persons from requesting details about gender testing of a particular athlete, the privacy provisions in the Act may make it difficult for such information to be released. It is very unlikely that in the context of gender testing, the mandatory disclosure provisions could override the privacy provisions. On the whole therefore, PAIA appears to provide more protection for athletes subjected to gender testing, than it allows requesters to access the information. However, the facts of each case could determine how each case could be handled.

Constitutional framework

The Constitution provides for the protection human rights, which includes equality, human dignity, security of the person and a number of other rights. These rights are important in the context of gender testing. As already observed in the discussion above, not only does gender testing undermine human dignity and privacy, but it can also undermine the right to equality. The manner in which gender testing is done can certainly undermine human dignity. The fact that gender testing is done mainly as part of screening mechanism for entry into women's competitions is itself a violation of the right to equality. Equality is also violated where transsexuality or some other rare genetic dispositions are used as the basis of exclusion from a particular category of sport.

What justifications for gender testing are available under the Constitution? Apart from the internal limitations (provided for within specific sections of the Constitution), there is a general limitation provided for under section 36 of the Constitution. This provides for the limitation of the rights provided for in the Bill of Rights (Chapter 2 of the Constitution), where such limitation is reasonable and justifiable in an open and democratic society, based on the values of human dignity, equality and human freedom. This means that rights like privacy, as provided for in terms of sections 12 (2) and 14 of the Constitution, could be limited under this section. This limitation takes into account the nature of the right in question, the importance of the limitation, the nature and extent of the limitation, the relation between the limitation and its purpose and whether there are any less restrictive means to achieve the same purpose (sections 36(1) of the Constitution)). It could be observed here that while privacy could be limited without difficulties, it might be difficult to limit the right to human dignity and that of equality, given that in addition to these being rights they are also values that serve as framework within which other rights

should be limited. This means that if gender testing is done in such a way that the athlete's rights to human dignity and equality are undermined, this could be considered to be unconstitutional.

International legal framework

Various international legal instruments exist, dealing with human rights protection. As gender testing is a human rights issue, human rights instruments are key to providing guidance on gender testing. An important international instrument in this regard is the Universal Declaration of Human Rights, 1948 (The Declaration). Although this was not originally designed to be a legal document, it has become the theoretical basis for many legal instruments in the world, including the South African constitutional framework (Brownlie, 1995, p.255). It is therefore considered an instrument, for discussion purposes here, with the same weight as formal international legal instruments. Art 7 of the Declaration provides for the equality of all persons. Art 2 fortifies this by providing for non-discrimination on the basis of race, sex, language, religion and various other grounds. Although gender and sexual orientation are not specifically mentioned here, the word sex appears broad enough to cover these grounds, depending on the context of usage at the particular point in time. Gender testing could therefore fall foul of these provisions, if conducted in a manner that seeks to discriminate unfairly against women, or a particular group. Art 12 of the Declaration further makes provision for privacy of a person. As pointed out already while discussing other legal frameworks, protection of privacy is important in the context of gender testing. Arts 1 and 6 of the Declaration recognize the importance of human dignity. As pointed out earlier, this too is important in the context of gender testing.

International Olympic Committee (IOC) Regulations

In response to a number of controversies regarding gender testing relating to participation in sport, the International Olympic Committee (IOC) has recently formulated regulations, referred to as IOC Regulations on Female Hyperandrogenism (IOC Regulations), dealing with participation in female competitions in the Olympics, more in particular the 2012 London Olympic Games. The rules, according to the preamble to the IOC Regulations, are directed at resolving the problem of 'intersex female athletes with elevated androgen production', which creates some problems in competitive sport. The Regulations provide that males produce more androgenic hormones, than women, and therefore giving men extra advantage during competitions.

The Preamble to the Regulations further provides that '*nothing in these Regulations is intended to make any determination of sex*'. The Regulations are said to be aimed at identifying some persons who will not be able to partake in the female category, due to hormonal characteristics. The athletes disqualified as a result of the test could still participate in the male category of the competition. It is submitted here that these assurances are meant to counter the criticism that they might be unfairly discriminatory against women. In fact, the assurances that the intention is not to determine sex is itself not enough, given that for one to be found to have committed an act of unfair discrimination, intention is not one of the elements. The effects of discrimination (through what is often referred to as indirect discrimination), could have the same effect as direct discrimination. Under the laws discussed above, these types of distinction, on the basis of hormonal characteristics, which affect more women than men, could fall foul of these laws. The practice will almost exclusively affect those persons who identify themselves as women. The regulations do not appear to distinguish instances where a person identifies himself or herself as a woman only for the purposes of the competition, and where the person generally identifies himself or herself as such. It also clearly unfairly discriminates against transsexuals, on the basis of characteristics that they are not responsible for. The burden will then rest on those authorities who do the investigation to show that the practice is not unfairly discriminatory. It will be difficult to discharge the burden if the practice is challenged in jurisdictions where the laws are strong against discrimination.

Para 3 (B) of the Regulations grants the power to investigate the eligibility to National Olympic Committees (NOC's). In this regard, it says:

As a consequence, each NOC shall, as appropriate, prior to registration of its national athletes, actively investigate any perceived deviation in sex characteristics and keep complete documentation of the findings, to the extent permitted by the applicable law of legal residence of the concerned athlete.

Investigating ‘any perceived deviation in sex characteristics’ as the Regulations suggest will not doubt undermine the rights of those who choose who they want to be. It will undermine human rights protections based on sexual orientation. These persons will be forced to identify themselves as men, while they do not want to, and when they are not. Sexual identity cannot be reduced to hormonal characteristics.

The process of conducting the investigation, including the medical examination, appears to be generally coercive. For example, para 8 (B) of the Regulations provides that the athlete investigated shall (not may) submit all relevant documents, in case they are available to the IOC Medical and Scientific Director. This includes documents relating to medical history, treatment, etc. If, upon request by the Expert Panel, the investigated athlete (or his physician or any other relevant member of his team) refuses to supply the requested information, or to undergo any examinations, the athlete can be suspended provisionally from the competition. The IOC executive board may also impose further sanctions on the team or any other relevant member of the team. This approach means that the athlete does not have any choice but to partake in the tests. This undermines core principles of medical examinations, namely, that the person must have informed consent to the examination. The onus, which will be heavy in this case in the event of a legal challenge, will then be on the authorities to show why any deviation from standard principles of medical examination is justified. The only time when the Regulations talk about informed consent is on whether, after the investigation has been completed and the results known, the results should be sent to the International Federation (para 8 (K) of the Regulations)).

Although the Regulations do make mention of the protection of dignity and privacy under para 8 (K), it is meaningless if this does not guarantee how such protection should be ensured during and after the test. For example, the fact that a person may be excluded from participation if he is found to be ineligible to compete will itself make the matter public. Because this usually happens just prior to, or during, the big sporting events could itself make the issue more public than it would otherwise be. This not only undermines the legal principles discussed above, but also some established principles of biomedical ethics, as espoused by Beauchamp & Childress (2009), namely non-maleficence (avoiding harm to the patient), beneficence (doing good to the patient), respect for autonomy, and justice. With regard to maleficence, coerced medical examinations, and indirect disclosure of the results (through the publicized disqualification) may cause more harm than necessary. Undermining privacy and informed consent also undermine respect for autonomy. Targeting transsexuals and women could undermine the principles of justice. There is very little in the IOC Regulations suggesting that any principles of beneficence have any place at all. The Regulations are therefore both legally and ethically flawed.

EXAMINATION OF THE ETHICAL FRAMEWORK REGARDING GENDER TESTING

Before examining the ethical framework around gender testing, one needs first, briefly, look at the key arguments against gender testing. Gender testing is a practice that appears to be *prima facie* wrong and therefore requiring justification. Various ethical theories exist to explain some ethical questions. These are deontology, consequentialism, virtue theory, amongst other theories. Though constitutional theory is generally considered a legal theory, in this discussion the paper treats it as being relevant as both a legal and ethical theory, depending on the context of the discussion (This will however not be discussed again here, as it has been covered above, except where a specific context requires some focus thereof). Because gender testing also involves medical examinations, some problems that gender testing raises could also be considered as biomedical questions with bioethical implications. Some established principles of biomedical ethics could therefore also be of assistance in dealing with problems associated with gender testing. As already pointed out above, Beauchamp & Childress (2009) recognizes four principles of biomedical ethics, namely: respect for autonomy, beneficence, non-maleficence and justice. These principles are, or could be, linked to some of the traditional principles above (they are however not discussed any further, unless a particular context requires it). A brief discussion of these ethical theories and principles in the context of gender testing therefore follows. Virtue ethics is not looked at here, except occasionally where a specific context requires it.

Deontology

This ethical theory considers actions as right or wrong if they comply with certain principles, rules or duties (unless the context otherwise indicates, the paper uses the words principles, rules and duties interchangeably). The Kantian version of Emmanuel Kant is one of the most well-known versions of deontology. The Kantian

ethics provides that the principles one prescribes for oneself should be universalizable, i.e., should be principles that everyone else should follow (O'Neill, 1991, p.176). It further provides for respect for persons, where persons should not be used only as a means to an end, but as an end in themselves (O'Neill, 1991, p.178). It is through the principle of respect for autonomy that questions of informed consent and confidentiality are addressed. The requirement of informed consent provides for the giving of informed consent by rational individuals.

In the context of biomedical ethics, this requires that a medical practitioner (or any other health practitioner) solicits the consent of the patient before treating the patient. Tests of this nature no doubt require informed consent from the persons tested? Is this the situation with the current practice of gender testing linked to participation in sport? As discussed above, and gleaned from the IOC Regulations, all indications point towards the possibility of coercion, given that the participants have very little other options but to partake in the tests, if they have to partake in the sport. While Kantian ethics provides a better account as to why testing without informed consent should not take place, it might not provide a better account as to whether there should be exceptions or not in the context of sport (Kantianism is a categorical imperative, providing for absolute rules that do not accommodate exceptions). As discussed elsewhere in this paper, this could well be accounted for satisfactorily by the constitutional theory, in particular the South African constitutional framework, which provides for the limitations of some rights provided that those relying on these limitations can show that their activities do fall within the justifiable limitations.

Respect for autonomy also implies having control over one's life, in particular one's private life. It means being able to control how and what others should know about you, more especially about your most private and intimate life. Losing this control leads to loss of privacy and confidentiality. Gender testing in sport tends to increase the risk of loss of privacy and confidentiality. For example, as pointed out above, though promises of confidentiality could be made by those doing the tests, where a person fails the test and therefore gets disqualified from partaking in a particular competition, this alone may lead to the breach of confidentiality. The fact that the disqualification itself will be made known will indirectly give the public the results of the test. Increase in interest in the issue further risks further disclosures about the details of the test. Too much publicity about the fact that there would be a test concerning a well-known South African athlete is a case in point (Meak, 2012, p.1). Although the athlete was finally cleared, the controversies and speculations around this were embarrassing to her.

Consequentialism

The theory uses consequences to assess the rightness or wrongness of actions. If the consequences are good, this then justifies the action to be taken. The well-known form of consequentialism is utilitarianism, which maximizes utility. An action therefore becomes right or wrong depending on the extent to which it maximizes utility or disutility. The utilitarian type of consequences could be in the form of greatest happiness, welfare, preference or could be of some other form (Goodin, 1991, pp.242-244).

In the context of gender testing, this practice could be right or wrong depending on the costs and benefits it brings out. The complexities and costs involved in testing could be taken into account in determining whether or not gender testing should be used. Utilitarianism could however fall flat in its consideration of the degrading of women and the discrimination against them. If there are other better benefits to be achieved, for persons whose interests are involved, in using gender testing, the protection of the human rights of women could be overlooked. The theory therefore fails in providing a better account as to why human the protection of women in this regard matters. In fact, in the context of gender testing, the theory is likely to justify, rather than discourage gender testing. The ends, being to avoid some persons having unfair advantage in competitions, will here justify the means, being gender testing, even if it violates the rights of women and transsexuals

Another theory, namely virtue ethics, focuses on assessing the character of the actors (e.g., of those requiring or doing the gender testing). As earlier indicated, this theory is not discussed here, except to say in passing that the assessment of the character of the actors does not look sufficient to properly account for the rightness or wrongness of gender testing. The theory does not provide a good guide as to what type of actions, in specific situations, are right or wrong, though it does tell us how we ought to live (Van Niekerk, 2011, p.32; Rachels & Rachels, 2012, p.169).

Proposed framework for gender testing

In proposing a framework for gender testing, we need to firstly look at how the different theories (legal and ethical), should be approached. When different legal and ethical frameworks are used in isolation from another, there result is that there might be loopholes in each of the frameworks. The frameworks, more especially the ethical framework, need to be used in combination with one another. An integrated approach to dealing with gender testing is therefore proposed, where the best in the different frameworks is used for specific situations. For example, a Kantian approach will be better in accounting for that we should not discriminate against women and transsexuals, why we need to protect confidentiality and why we need to respect human dignity. A constitutional framework will provide a better account where we need to balance rights, and also provide for justified exceptions where the need arises. Utilitarianism is simple to apply (Pettit, 1991, p.237). The theory is, comparatively, a better action guide.

The second aspect to consider is with regard to the whether or not there are instances where gender testing could be justified, and if any, what requirements are proposed for the testing to be considered justified. Having looked at the common law, legislative framework, constitutional and international legal framework, the following could be proposed as the general, minimum circumstances which could justify gender testing. These requirements are necessary, given that gender testing is considered *prima facie* wrong, therefore requiring some justification (also see how Childress *et al.*, 2008, p.635, develops what they call justificatory conditions in relation to public health interventions).

Three requirements are identified for this purpose. Firstly, there should be the least human rights' violation, if any does occur at all. In other words, the actions should not violate human rights more than is necessary to achieve the particular purpose. This could be in line with section 36 of the Constitution, which requires less restrictive actions. The second requirement could be that there should be no discrimination. This means that the testing should not be restricted to, or biased against, female competitors. This could be in line with the prohibition of unfair discrimination, as provided for in most of the legal instruments and some ethical frameworks discussed above. Thirdly, the protection of human dignity should remain the central consideration, and should override any other right, in case of conflicting rights. This will also be in line with the Constitution's emphasis on human dignity as a key value. The principle of deontology also values that. This is not a closed list, but merely providing some minimum requirements for allowing gender testing.

CONCLUSION AND RECOMMENDATIONS

The paper had to look at some legal and ethical issues surrounding gender testing for legibility to partake in sporting events. The study first looked at the legal framework and examined its relevance to questions of gender testing. In this regard the paper argued that gender testing on the whole undermined the right to human dignity, equality and privacy. The paper also looked at the IOC Regulations and examined their shortcomings in relation to the protection of athletes subjected to gender testing. The paper also looked at the ethical frameworks, and examined their relevance in relation to gender testing. The paper then proposes an integrated approach to gender testing. It further proposes a clearer and more workable framework within which gender testing should take place. In the process, the paper also proposes some requirements for justifying gender testing. This will assist sports managers and other stakeholders within the sector in handling gender testing in a manner that respects the human rights of those tested. In conclusion therefore, it is submitted that gender testing is *prima facie* wrong. It therefore requires some justification if it were to take place.

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IN PURSUIT OF CLEAN AND SUSTAINABLE ENERGY IN SOUTH AFRICA

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ABSTRACT

Presently, fossil fuels are the major energy sources globally and in South Africa. The fossil fuels comprise coal, crude oil and natural gas. Coal exists in situ in a number of countries and it contributes 39% of the total electricity generation in the world. In South Africa, coal is the primary source of energy producing 88% of electricity and a third of the liquid fuels. A small portion of natural gas is also transformed into liquid fuels. Presently, the United Nations Convention on Climate Change lead a global campaign to reduce carbon emissions by advocating increased use of renewable energy sources. A qualitative study was carried out and senior professionals in the coal mining and role players were interviewed. The study recommended increased use of renewable sources of energy and use of clean coal technologies to build a sustainable energy base with less carbon emissions.

Keywords: Clean-energy, sustainability, fossil-fuels, renewable-energy, coal

INTRODUCTION

Fossil-fuels comprising coal, crude oil and natural gas are the leading global sources of energy. Coal contributes 39% of the total global electricity production. In South Africa, it is the primary source of energy producing 88% of the country's electricity and a third of the liquid fuels. The commodity is also used as a catalyst in heavy industries and for cooking and space heating at homes.

The global coal producing countries strives to maintain the rising energy demand resulting from rising population and rapid industrialization. The trend for ever rising energy demand requires a suitable supply model to satisfy the present and the future requirements. Hence, the need for clean and sustainable sources of energy.

Towards the end of 2013 scientist reached a 95% consensus that greenhouse gases contributes towards the climate change or global warming. The findings endorsed the United Nations Convention on Climate Change (UNCCC) that emerged after the first earth summit in Argentina in in 1992. The extensive use of fossil-fuels which is non-renewable energy source pose great danger to the environment due to their high level of carbon emissions. Coal has the highest level of carbon emissions compared to the other two.

Therefore, the journey towards clean energy sustainability involves intensification of clean energy development from renewable sources and use of technologies that reduce carbon emissions from the existing sources. The main renewable sources of energy include hydro power, solar, wind, biofuel and geo-thermal. The nuclear power is not renewable, but it has limited carbon emissions.

PROBLEM STATEMENT

The problem statement for the study was to establish the plans and processes being undertaken in South Africa towards achieving clean energy sustainability. The uses of non-renewable and renewable energy sources were explored to establish the extent of their carbon emissions.

THE PURPOSE OF THE STUDY

The purpose of the study was to establish the progress in South Africa towards realization of clean energy sustainability. This included looking at legislations, plans, projects and the government support for the initiative.

METHODOLOGY

A qualitative research paradigm was adopted for the study. According to Cooper and Schindler (2008: 162-168) the outcome of the qualitative interview depends very much on how the researcher prepares the participants for the interview. 'Qualitative research has substance, gives insight, shows sensitivity and is unique in conceptualization, yet grounded in data' (Corbin & Strauss 2008: 302).

A purposive sampling process was used for the selection and profile of participants. The process aimed to enhance understanding of the selected people or groups as they were selected for a specific purpose, task or expertise in research. 'The researcher should be in a position to expound the use of purposive sampling in order to instill confidence and validity for research findings' (Devers & Frankel 2000: 264-265). The participants for this study were the top professionals from organizations which control 95% of the coal mining and the role players in the industry. The population comprised four Chief Executive Officers and nine senior professionals.

Sample and procedures

In order to obtain access to individuals and institutions, the researcher is required to obtain permission from gate-keepers of the target institutions (Ehigie & Ehigie 2005: 622-623). The permission to conduct research either oral or written is paramount (Cooper & Schindler 2008: 37). The researcher addressed the value proposition for the study to the organizations involved through an introduction letter from the institute. The letter also stipulated the ethical issues for the research.

Data analysis

The research data was collected from the respondents using the audio digital data recorder and from the field notes. The collected data was transcribed and content analysis was used for the translation and analysis. The emerging themes and sub-themes were recorded and evaluated establishing the processes being pursued to provide clean and sustainable energy in South Africa.

Reliability and validity (Measures of Trustworthiness)

The reliability and validity of data from this study were ascertained through triangulation: comparing data from the interviews, feedback from the participants and from the literature. 'Multiple sources lead to a better understanding of the phenomena being studied' (Willis 2007: 219). Triangulation enhances validity and richness of data by looking at issues from different angles (Lee & Lings 2008: 239).

Ethical procedures

According to Eriksson and Kovalainen (2008: 68) research is vulnerable to 'lies, fraud and wrong-doing' hence, ethical adherence is paramount. The ethical issues for this study were addressed through the research introduction letter stated above.

RESULTS

The following are the themes and sub-themes that emerged from the study and were used to establish the findings for the study. Four major themes and a number of sub-themes emerged as expressed in Table 1.

Table 1: Themes and Sub-Themes Emanating from the Interviews

THEMES	SUB-THEMES
Coal: origin, reserves, quality, business model, production, consumption and trade (economic benefits/welfare of employees and communities)	<ul style="list-style-type: none"> - Coal and its properties, reserves, production, consumption and trade - Employee satisfaction - Community welfare - Environmental impacts
Legislative environment (MPRDA, NEMA, NERSA)	<ul style="list-style-type: none"> - MPRDA Act of 2002 - NEMA Act of 1998 - NERSA
Role players: coal mines (private), Transnet - rail infrastructure (public) and South African Chamber of Mines (private)	<ul style="list-style-type: none"> - Coal mines - Transnet (rail transport) - South African Chamber of Mines (advisory role to the mining industry)
Environmental issues: pursuing green management issues as per legislations, funders and social responsibility. Committed to “cradle to grave” philosophy of green environment	<ul style="list-style-type: none"> - High carbon energy environment: carbon emissions, dust, noise and diesel pollution - Inappropriate road transport of coal - Circle of commitment: ‘cradle to cradle’ and ‘cradle to grave’ ;building carbon credit through reduction of carbon-dioxide, product re-use, recycle, rehabilitation (soil, water, mines)

Source: Mathu (2011: 222-223)

Table 1 indicates the themes and sub-themes that emanated from the study. The themes focus on the history and properties of coal; legislative environment; coal supply chain role players and environmental impacts. Both the themes and sub-themes are discussed hereunder:

DISCUSSION

The four major themes that emerged from the interviews with the respondents indicated that South Africa has a predominantly coal-based energy focus. The fossil based non-renewable energy has far reaching impact on the national economy and the environment. The legislations are widely in favor of coal production for domestic and export markets. However, they also address the environmental protection through responsible mining practices. A detailed reflection of the coal use for energy production and the future plans were elaborated from the interviews. The respondents were professionals and decision makers from across the industry as elaborated herewith:

Coal and Its Properties

Africa holds 5.7% of the world coal reserves and 90% of the reserves are in Southern Africa. South African coal is associated with the Karoo rock formations which extend over the present day Free State, Mpumalanga, Limpopo and Western Natal. The chemical composition and properties of coal determine its usage. South African coal is less reactive, harder and has lower sulphur content compared to coal from the Northern hemisphere. The bulk of South African coal is bituminous or thermal grade suitable as fuel for electricity generation and anthracite suitable for metallurgical plants (Lang 1995: 20).

South African Coal Reserves

South Africa has the 6th largest coal reserves in the world comprising approximately 30 408 million tons. The reserves are found in Mpumalanga, Free State, Limpopo, Kwa-Zulu Natal and Limpopo coalfields (DMR 2009:44). The South African coalfields are mainly concentrated in the Mpumalanga coalfields where most of the coal-fired power plants are situated. The export coal is also transported from this area through a 650 kilometers rail line to the Richards Bay Coal Terminal. However, coal is depleting from these coalfields and it is projected

that by 2020 coal mines will relocate to Waterberg coalfields in Limpopo Province which has abundant, untapped coal reserves (Chamber of Mines 2009:27).

There are 73 collieries in South Africa distributed as Free State (2); Gauteng (1); Kwazulu-Natal (7), Limpopo (2) and Mpumalanga (61) (Prevost 2009: 27)

Coal Production

The coal in South Africa is produced by five leading companies namely Anglo American, BHP Billiton, Sasol, Xstrata and Exxaro that produces 80% while the 20% is produced by smaller companies in the industry (DMR 2009: 47). With the current depletion of coal from Mpumalanga coalfields, the future of coal production from South African will be in Waterberg coalfields in the Limpopo Province (Chamber of Mines 2010: 27). Presently, Eskom is building two giant coal-fired power stations Medupi and Kusile which will be completed in stages from 2014 (Eskom 2011: 88-89).

Coal Consumption

There are two categories of coal usage in South Africa namely domestic consumption and export markets. The domestic consumption is predominantly by Eskom power stations for the generation of electricity, Sasol for transformation into synthetic fuels and petrochemical products, steel and cement industries, aluminium smelters and homes for various applications.

a) Coal for the Generation of Electricity (Eskom)

The government's Electricity Company of South Africa (Eskom) consumes the bulk of coal produced in the country as fuel for the generation of electricity through its current 13 coal-fired power plants which generate 88 per cent of the national electricity (Eskom 2009: 226). Eskom is one of the global top 10 utilities by generation capacity (Eskom 2009: iii). This is an indication of the size and capacity of the utility. The company's electricity generation mix comprises coal, hydro, pumped storage and some imports. This brings the total nominal capacity to 44 193 megawatts (MW) (Eskom 2009: iii).

Eskom consumes approximately 50 percent of the coal produced in South Africa and approximately 66 percent of the total domestic coal consumption. Its coal consumption in 2011 was 124.7 million tons (Eskom 2011: 11).

b) Coal for Production of Liquid-Fuels and Petrochemical Products (Sasol)

South African Synthetic Oils (Sasol) is a South African based international manufacturing a wide range of petrochemicals and synthetic fuels. It manufactures a third of South Africa's liquid fuel requirements and it is the largest chemical feedstock producer in the country (Sasol 2012: 11). 'Sasol's primary business is based on coal-to-liquid (CTL) and gas-to-liquid (GTL) technologies using Fischer-Tropsch synthesis which convert coal and natural gas respectively into liquid fuels. The Fischer-Tropsch technology is heavy in carbon dioxide emissions. Indeed, the company's Secunda plant is one of the world's single largest emitter of carbon dioxide.' (Sasol 2008: 83).

LIMITATIONS OF THE STUDY

Accessing the industry was not easy as energy is treated with sensitivity due to its critical role in economic development. The institutions in the industry had to be convinced in the value proposition for the study.

CONCLUSION

South Africa's dominant carbon economy is the second largest economy after Nigeria in the African continent. The country's 'National Development Plan 2030' emphasizes on the production of cleaner and sustainable

energy. However, fossil fuels will remain dominant in the South Africa's energy mix. Improved energy efficiency improves cost and reduces emissions when appropriate mitigating measures are applied. The only challenge with the renewable energy is its intermittence nature which renders it useless for base load supply, but coal will continue to play the role for base load supply.

RECOMMENDATIONS

The study recommend the introduction of intensive training in green initiative and encourage development and use of clean energy in form of renewable sources at all levels of the society in support of a better ecosystem. The social responsibility for companies should include sustainability education for their employees and the other stakeholders and strive to implement the global reporting initiative (GRI) to make the world a better place for the present and the future generations

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MAPPING THE INTELLECTUAL CAPITAL OF CITIES AND REGIONS

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ABSTRACT

Recent research has shown the importance for firms, regions and nations of identifying, valuate and monitor intangible assets such as Intellectual Capital (IC). Several authors consider that these assets are crucial either in sustainable innovation processes, either in the process of developing the necessary reputation for building strong brands to attract talented people and investments. This implies the conception, development and implementation of IC development systems for all those multilevel units. In this paper of exploratory and theoretical nature, we address two questions related with the problem of IC development systems for units such as firms, cities, regions and countries. The first question is to decide if the definition of IC must be the same for all units' levels. The second question is related with the definition of concepts useful for structuring decision support systems for IC management of those units: can we use common concepts in independent levels? None of these problems is satisfactorily covered in the studied literature. In terms of methodology there is evidence that multilevel statistical methodology and the concept of isomorphism are relevant for answering the first question and, in relation to the second question, that a neuropsychology inspired model can be useful.

Keywords: Cities, regions, intellectual capital

INTRODUCTION

The aim of this exploratory work is to identify and characterize possible investigation lines related with the problem of regional IC (cities and regions) to be explored in future work. Specifically, the two main objectives of this exploratory work are: 1 - To identify methodologies that address the multilevel nature of units; 2 - To examine the possibility of using neuropsychology concepts to shape the development of management systems of IC for those units. From the literature review – see part 1 – it is not entirely clear what the relation between the IC of entities at distinct levels is. It is intuitively appealing to consider, for example, that the IC from an enterprise is a function (what function?) from the IC of persons that composes that enterprise. It is also expected that the IC of a city must reflect (how?) not only the IC from the enterprises, organizations and other institutions that integrate the city, but also the IC of the people connected with the city - not being entirely clear if these IC definitions should be the same, independent of level, its meaning being invariant through the hierarchy of units. This kind of questions are the object of part 2 of the paper. In part 3 we explore questions associated with a possible methodology to use when we come up with the need to specify a system capable of helping in the development and management of the IC of specific territorial units (city, region, metropolitan area...). What are the relevant concepts? Is there a set of conceptual components useful for this and invariant with the level of units? What must be the nature of a possible IC mapping of a specific unit? How can that IC mapping be monitored and updated? This is the more speculative part of the paper and must be seen as an effort integrated in an ongoing task, an exploratory work and not as a finished work. Part 4 – conclusions – presents the main findings of this exploratory work.

LITERATURE REVIEW

The macroeconomic researches on intellectual capital have emerged in the early 2000s. Researchers and some governments (particularly the Danish and the Dutch) realized that it was important to know and measure the intellectual capital of countries, regions and cities. Some of these studies have had a major impact on the recognition of the importance of measuring intellectual capital at macro-level. The main purpose of these studies on intellectual capital is to produce guidance on economic development (e.g. Andriessen & Stam, 2004). However, it has often been mentioned that the models for measuring intellectual capital, adapted from business models, have many flaws (e.g. Ståhle & Ståhle, 2012; Lazuka, 2012).

If we analyse the models of intellectual capital applied to cities or smaller urban units (e.g. villages), we find that there is even less literature. Usually, we consider two approaches: the first one, based on the measurement of intellectual capital of companies as proposed by Edvinsson and Malone (1997); the second one, based on the macro-level of countries.

There are some approaches to the subject of intellectual capital applied to cities, in particular: Carrillo (2004) studied the knowledge cities, identifying three types of capital (human capital, meta-capital and instrumental capital). Viedma (2003) proposed a methodology (CICBS - Cities' Intellectual Capital Benchmarking System), a methodology to measure intellectual capital of cities, consisting of two models: a model formed by the vision, resources, skills and indicators, based on "Skandia Navigator", and another that identifies the micro-clusters of the city. Rodríguez et al. (2004) developed a model for the intellectual capital of the Madrid region based on the "Intellectus model", with five variables of regional capital: human, organizational, technological, social and financial-economic. Bossi et al. (2005) adapted to the cities, the methodology of intellectual capital in the public sector. According to Schiuma et al. (2008), city's competitiveness depends on its innovation capacity. Authors divided city's knowledge capital into the four categories: human, relational, structural and social. Bounfour (2005) also investigated the intellectual capital of the European Union countries, using a measurement model at the macroeconomic level. Schiuma, Lerro & Carlucci (2008) used the "Regional Intellectual Capital Index" (RICI) to create a set of indicators for regions. López et al. (2008) proposed a model applied to 25 regions of the European Union. Ståhle and Bounfour (2008) have sought to understand the impact of intellectual capital in the economy. These authors used relevant macroeconomic indicators for 51 countries and showed that indicators related to intellectual capital have different impacts on the GDP of a country and on its economic growth. They attribute these differences to the different stages of economic development. Corrado et al. (2009) used models developed for the macroeconomic level in order to attempt to estimate the weight of intangible assets in the U.S. economy. Ergazakis and Metaxiotis (2011) presented the "KnowCis 2.0 methodology", a methodology proposed for the formulation of a Knowledge Cities strategy. Alfaro, López and Nevado (2013) presented the MEICC, a theoretical model to measure and evaluate the cities intellectual capital. Before this authors had presented a model to measure national intellectual capital (Alfaro, López & Nevado, 2011a) and a model of estimation of intellectual capital in the European Union (Alfaro, López & Nevado 2011b). Matos (2014) presented a theoretical model, the "cities auditing model" supported four quadrants (Human capital, Organizational capital, Processes Capital and Market capital) supported by a set of intangible indicators of the intellectual capital of the cities.

According to some authors (e.g. Andriessen & Stam, 2004) it was not necessary to develop new models for macro-measurement of intellectual capital, since the concept of intellectual capital was transferable from a micro-level (enterprise) to a macro-level. This approaches consider the statistical relationship between the various components of intellectual capital and the level of economic development of the region or city and the intellectual capital is defined as intangible attributes of the region's residents, businesses, institutions, organizations, public structures, communities and administrative units, that represent the identity of the region and which are potential sources of future improvement and economic growth.

REGIONAL IC – A MULTIPLE PERSPECTIVE

The territorial units that are the object of IC form a natural hierarchical structure whose levels are: person, organization, city, metropolitan area, region, nation and state; just to mention the main levels.

The concept of IC makes sense for all the aforementioned units and is useful as a subject of study, economic and political decision. A legitimate methodological question is to know if the definition of IC to be used with the units at distinct levels of the hierarchy – and the corresponding observation, measurement and statistical methods – must account for the levels or should/can be the same. Sometimes – see for example Navarro *et al* (2014) and Viedma (2013) - the problem is not the hierarchical relations between units but the fact that it is necessary to compare/benchmark or associate units of the same hierarchical level, belonging to distinct geographical places or having economical or technological distinct status: the question of comparability or isomorphism between similar units.

Contrary to what happens with other domains – for example students' evaluation in educational science, health and behavioral science – in the IC consulted literature we did not notice similar formal concerns about the consequences of the hierarchical nature of units for the statistical methodologies. For example, if the students are grouped in classes and the classes are grouped in schools, the features of classes and schools must count in the explanation of average classifications obtained by students. See, for example, Goldstein (1987, 2003), Leyland *et al* (2001).

Specifically, suppose we have two units belonging to the levels l and $l + 1$. For example: l for City (C) and $l + 1$ for Region (R). Is $IC(R)$ the sum of the $IC(C_i)$ for all nc cities C_i ($i=1...nc$) belonging to the region R ? It is clear that IC of the region must be some function of IC of its cities, but what kind of function? On the other hand, it seems also clear that this function must be completed with the contribution of some other intangibles, when we pass, from the level of city to the level of region.

Let us illustrate this kind of problem with an example involving the concept of NIC - National Intellectual Capital – see Lin *et al* (2011), and the concept of EIC – Enterprise Intellectual Capital as proposed by Matos (2013). According to Lin *et al* (2011), NIC is obtained grouping in 5 components the 29 indicators described in table 3.1 of Lin *et al* (2011). The data used by Lin *et al* (2011), can be seen in table Lin *et al* (2011). Those components are HC - Human Capital; MC - Market Capital; PC - Process Capital; FC - Finance Capital; RC - Renewal Capital. On the other hand, according with Matos (2013), data from a random sample of 112 firms was obtained using a questionnaire formed by 97 indicators, measured in a Likert scale of 5 values. Those measurements were aggregated in five (I, II, III, IV, V) variables or quadrants that previous studies had shown to be the adequate. The result is a data set whose rows correspond to 112 rows and five columns, corresponding to the quadrants: I, II, III, IV, V (I – Individual Capital Quadrant; II – Team Capital Quadrant; III – Processes Capital Quadrant; IV – Clients Capital Quadrant; V – Networks and New Technologies of Information and Communication). Employing the same methodology (principal components/biplots) to analyze both data sets, we came up with two plots (biplots) with a similar structure. See figures 1 and 2.

Figure N°1 - Biplot for 40 countries
Five quadrants (I, II,...V)

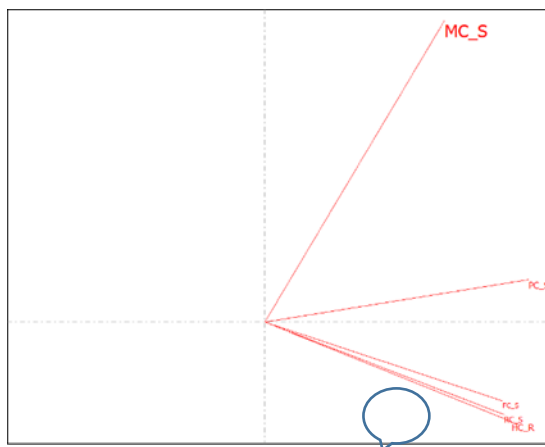
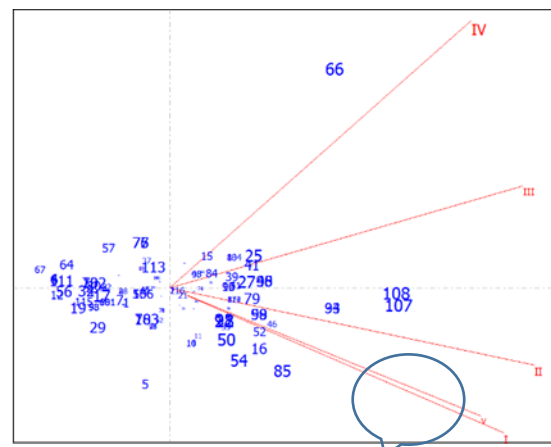


Figure N°2 - Biplot for 100 firms observed
on 5 quadrants HC, MC,...RC



As can be seen, although the two plots were obtained out of two data sets constructed with data resulting from observing units at distinct levels of the hierarchy (Countries I, the case of Liu *et al* (2011) and Enterprises in the case of Matos (2013)), belonging to distinct realities, the structure of the constructs is very similar. We can see that variable MC_S (Score for Market Capital) in the plot 1 corresponds to quadrant IV, approximately with the same meaning; PC_S (Score for Process Capital) corresponds to quadrant III (approximately with the same meaning) in the second plot. This similarity seems to transcend the topological structure and to touch the semantic level; it would justify the hypothesis formulation that it is possible to use the same definition of IC both for Enterprises and Countries. This example is, possibly - depending on hypothesis validation- an illustration of the problem formulated in Tay *et al* (2014): is there, in this case, evidence of the presence of an isomorphism between the definition of IC for units of distinct hierarchical levels? How to define and validate such isomorphism using a mix of observational and random data? For a similar kind of problem – now related with possible isomorphism of regions – see <http://s3platform.jrc.ec.europa.eu/regional-benchmarking-tool> where it is possible, using the European Smart Specialization Platform to find, online, reference regions based on structural similarities. See also Navarro *et al* (2014).

REGIONAL IC – COMPONENTS OF SENSORIAL SYSTEM

Related with the problems of development of IC for cities and regions – or other territorial units of the hierarchic structure mentioned in the previous part – comes the practical question of specifying information systems to support both the development and the management of such processes. Is it be possible to obtain a common structure –independently of level – for an information system that supports IC mapping and decision tasks connected with the development of IC for a city or region? What should be the goals and main building blocks to use in the specification of such systems?

In what follows, we use as an inspiring paradigm the biological counterpart of formation and development of a human Ego (“Self”), as seen in Damásio (2010). We believe that the first condition to speak about a city or region capital intellectual (RIC) is the existence of a sense of belonging or membership to the city or region, shared by almost all its inhabitants, political corps, organizations and other institutions. There must be an intangible we could name City or Region Identity. This “feeling” of identity and belonging, is something that is built along a more or less large period of time, based in consensus, nurtured by shared values, interests, culture, language and a common history. All those intangibles - that we could name as collective Regional Identity - form, in our view, the basis *sine qua non* of a successful *development* of a regional IC. This development process seems to share with the development of a human self-consciousness, out of a biological reality, similar tasks and processes.

This approach – to base in nature the formulation and development of optimization algorithms and other models – is not new. To cite only two very well-known examples, consider what happened with the development of the computational method known as artificial neural networks - see for example (McCulloch *et al*, 1943) or (Haykin, 1999) - and the optimization methodology known as Genetic Algorithms (Michalewicz, Z., 1995) generalized to the concept of evolutionary computation, not to speak in the data analysis concept known as data mining, or learning machines, source of recent new and revolutionary concepts in statistics and data driven science.

Examining some of recent research, Damásio (2010) proposes a model of self-development of a human being and conscience formation out of a biologic basis from which it is possible to abstract some similarities with what seems to happen in the process of development of a collective conscience, in which we found the basis for the development of a RIC model.

In Johnson-Laird (1987, 2010), we discover the formulation, experimental evidence and practical application of the concept of mental model that seems to explain the way human beings behave when reasoning, simulating in brain - through representations of reality known as mental models or images - the facets of reality relevant for the rational decisions in specific domains. As living organisms, cities and regions seek not only to survive but also to perpetuate its existence developing as much as possible the respective potential to improve the welfare of their respective inhabitants. The development and management of Intellectual Capital (IC) of a city or a region should be seen in this context and not as an end in itself. View (Stewart, 1997).

The key issues to consider in the strategic management of a city or region for which the development of IC is needed are related with the answers to the following questions:

- 1 - What makes people want to visit or live in the city or region? (Why do they come?)
- 2 - What makes people visiting or living in a city or region wanting to stay? (Why do they stay?)
- 3 - What makes current inhabitants or visitors feel they would like to leave the city or region? (Why do they leave?)

The monitoring of the sentiments of people in relation to these three questions is among the main functions of a system to develop and manage IC of a city or region, meaning that this is one of the main world representations to consider.

Obviously, the population sentiments have underlying economic issues such as employment, wages, prices level, housing, health, education, community facilities, quality of life, safety and access to culture, family issues, and political issues. That is, the fact that the city and the region attract and fix population means or has underlying the fact that the city or region has satisfactory and competitive responses (compared to other alternatives) to the questions asked. When one is led to consider the possibility of moving, do it long before the fact, using all the information available. That is, the city and the region must be able to predict as early as possible before its occurrence, the main changes expected, in what areas of activity and their respective causes, and, based in this representation of reality, take the necessary strategic actions. This can be done developing what one could call a sensory system of the city or region - or nervous system of the city - that continuously captures the relevant signals that determine the feeling of the inhabitants and forecasts the future sentiment of the population for the three attitudes identified, influencing what one might call the IC of the region or city. This development is inspired by what seems to happen with the human body and brain in which a sensory system that covers the entire body captures the basic data and forwards it to a central system where it is processed. A particularly important aspect of this process appears to be associated with the construction of mental images - see (Kosslyn, 1996) and (Damásio, 2010) - or mental models - see (Johnson-Laird, 1983, 2010).

Many of the reactions of the brain to stimuli captured by the sensors are purely automatic and seem to implement rules embodied in biological circuits, learned through biological evolution, without any reasoning process. See Damásio (2010). When reasoning, human mind focus not on real objects from the outside world but on dynamic representations (images and mental models) generated by the brain. As has been shown experimentally - see (Kosslyn, 1996) - these images are manipulated (rotated, for example) during the process of reasoning, as a result of computational processes that act on these images or other representations of the world stored in memory.

Having these references in mind, we think that the structure of a sensory system for a city or region could be specified using the functions and software counterparts of the corresponding human neuronal systems with the following components: Sensors (S), Representations Generators (RG), Representations (R) and Memory (M).

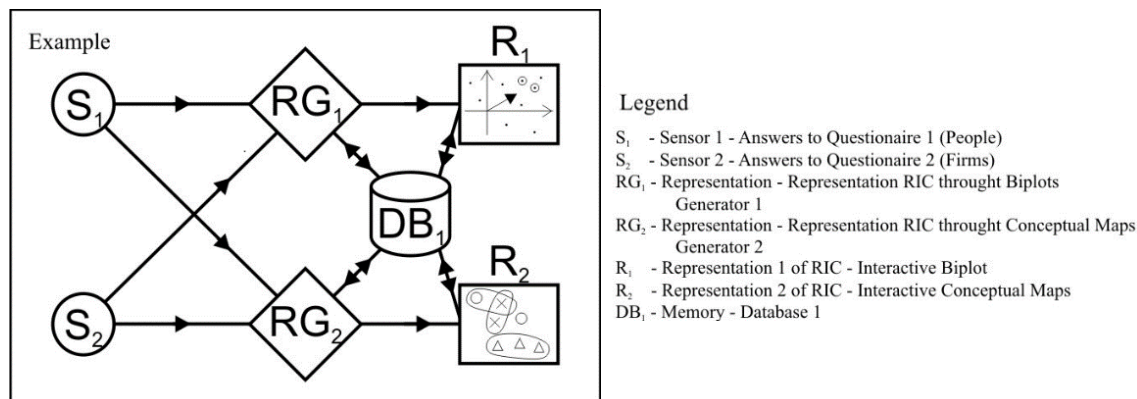
Sensors (S) - Graphical symbol: a circle. Its function is to collect data on a single aspect of reality, characterized by a single-variable which may have one or more components. Each sensor corresponds to a continuous flow of data (data stream) that will feed one or more decision-making processes. These data can be obtained directly from the outside world or from pre-existing data repositories- Memory (Databases). For example, a sensor can capture the answers to a certain question in a questionnaire periodically applied. Another sensor can collect textual information generated randomly by citizens using the respective mobile to report accidents, assaults, disorders, complaints, etc; another example: selected texts of the daily press may be collected by one or more sensors that transmit these raw data to representations generators of political sentiments or public opinion.

Representation Generators (RG) - Graphical symbol: a diamond. Representations generators receive sensor data and implement specific statistical, optimization, other mathematical and simulation models and other algorithms; also calculate or update specific representations of the real world for specific decision processes.

Representations (R) - Graphical symbol: a rectangle. Rational decisions are made reasoning on representations of the world or taking into account the current state of the world represented by these dynamic representations. Memory (M) - Represented by one or several data bases to store the relevant knowledge about the system and the world. Using these components we can specify information systems with directed graphs such as the simple example of figure 3. In this kind of graph, the existence of an arch $A \Rightarrow B$ means that component B uses information supplied by component A.

In the specific case of figure 3, the system is composed by two sensors (S1 and S2).

Figure 3 - A system with two sensors, two representations generators, two representations (CI as an interactive, dynamical, conceptual map and CI as an interactive, dynamic biplot) and the memory of system (data base).



Assuming that the functions of these sensors are: Sensor 1 - to collect continuously the answers of people to questions of IC from universities of a certain region and Sensor 2 - to collect continuously the answers of people working in firms of that region to questions of an IC questionnaire such as the one proposed in Matos (2013). Both data streams - after some preliminary transformations - is supplied to two specialized Representations Generators (RG1 and RG2) that generate and update the two world representations R1 and R2 with which users interact to decide. Just as an example, suppose that RG1 generates the dynamic (continuously updated) and interactive digital plots of concepts (representation R1) resulting from the two streams with origin in S1 and S2 and that RG2 generates a dynamic interactive conceptual map (the representation R2), also resulting from the same data (S1 and S2) but created by a distinct algorithm. The memory of system is represented by one or several data bases (DB1) to store the knowledge generated by the system and by the interaction with users: data, states of system, events and decisions of users.

SYNTHESIS AND CONCLUSIONS

With this exploratory paper we have identified concepts and investigation lines that can help in the conception, development and implementation of IC decision support systems:

1 - The relevance of multi-level statistical methodology for measurement and conceptualization of IC relating distinct territorial units.

2 - The relevance of neuropsychology concepts as an inspiring model for specifying information systems for development and management of regions and cities IC.

3 - The relevance of modern developments in neuropsychology as an inspiring model for specifying information systems for development and management of regions and cities IC.

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TOP-LINE REVENUE FRUSTRATION: WHY TRADITIONAL SALES/MARKETING METHODS ARE FAILING AND WHAT RETHINKING IS NEEDED

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ABSTRACT

Many academics, as well as industry practitioners, are perplexed and frustrated as their present knowledge and methods of marketing and sales seems to be under assault and simply less effective than in the past. In addition to general resistance to change, there are two major structural reasons: (1) Power has shifted from the traditional marketer/seller as buyers anonymously and independently seek product/service information and (2) The traditional linear selling-centric Sales Funnel is not directly visible or controllable by marketers/sellers and has been replaced by a non-linear buyer-centric Buyer's Journey (funnel). This paper presents a Digital Marketing Model to address these frustrations.

Keywords: Digital Marketing, Social media marketing, Content marketing, Cold-Calling, Sales funnel/pipeline/cycle, Consultative selling, Business to Business (B-2-B) sales

INTRODUCTION

In his 1997 book, *Only the Paranoid Survive*, Andy Grove, Intel's then President and CEO, introduced the term, *Strategic Inflection Point*. (Grove, 1997). Grove applied this term to a key point in the life of a business when it is apparent that the old ways of doing business are no longer viable. Significant change at this point, in Grove's view is necessary for the business to survive. Change by simply applying new technology to old practices was insufficient. What was needed at this inflection point was a total rethinking and reengineering of the business.

Similarly, *Strategic Inflection Points* are reached in various functional areas within a business. Today, this point has been reached in the functional multiple areas of an organization's Go-to-Market Business-to-Business (B-2-B) economic exchange processes.

A corporation is a living organism; it has to continue to shed its skin. Methods have to change. Focus has to change. Values have to change. The sum total of those changes is transformational. - Andrew S. Grove (Sager, 2007, Jan. 29).

Today, top-line revenue professionals – ranging from the “C - Suite” or Senior Corporate Level to the front-lines of the salesforce – are increasingly frustrated with increasingly less effective and more expensive reliance on past methodologies of obtaining top-line revenue. What is going wrong? What is needed?

According to David Meerman Scott, prolific and prescient observer of 21st Century digital marketing dynamics (Franklin & Jenkins, 2014, Foreword), the purpose of marketing is to gain “Attention” – This author adds “Retention” to this mix. There are four ways to gain attention, states Scott: (1) You can **buy** attention – this is called *Advertising*, (2) You can **beg** for attention - this is called *Public Relations*, (3) You can **bug** people for attention - this is called *Sales*, and (4) You can **earn** attention online – this is the primary reality today and is being achieved through Digital Marketing.

“Why,” asks Scott, “...is earning attention online best?” Because, today, buyers are in charge. Access to and consulting blogs, social networks, review sites and other web-based tools, today’s buyers often bypass the traditional marketing and selling model altogether – they learn for themselves about a company’s products and service, their competitors, and what a company’s existing customers say about them (Franklin & Jenkins, 2014, Foreword). This view is supported by Tom Martin in *The Invisible Sale* (Martin, 2014) discussing the *Self-Educating Buyer*. Here, traditional salespeople are often unaware of potential buyers who are hidden and invisible in the traditional marketing/sales pipeline or *Sales Funnel*. They do not even know of these buyers’ existence and ignorantly lose sales from buyers who are hidden in the traditional process these traditional sellers continue to practice. Historically viable, the sales-centrally termed model, the *Sales Funnel*, begs rethinking and redefinition to evolve into a more correctly buyer-centrally practiced and labeled model, the *Customer Buying Journey*.

Purpose

The primary purpose of this paper is to shed light on the perplexing, confusing, and frustrating reasons for why today’s traditional Go-to-Market (Sales and Marketing) methodologies are seemingly failing. A secondary purpose is to build context for future primary research – The author will research B-2-B marketers and salespeople at major hotel corporation hotels.

Methodology

This is a conceptual paper sourced from secondary research and describes organizational structures aimed at generating Top-Line Revenue primarily from B-2-B (Business-to-Business) markets. It specifically focuses on practices of personal salespeople (Quota-carrying & active versus passive salespeople) as assisted by an organizational marketing function.

First, this paper presents a brief historical overview of traditional marketing and sales practices. This provides context toward understanding a growing frustration among many traditional marketing/sales practitioners.

Second, this paper presents an evolving *Digital Marketing Model* (Figure 1) that illustrates evolved vanguard organizational marketing and sales practices and offers rethinking guidance for laggard organizations frustrated with declining efficacies of their traditional marketing and sales practices.

DISCUSSION

Top-Line Revenue Frustration

Top-Line revenue generation has traditionally been the domain of two related but culturally separated silos: marketing and sales. In an analogue world, marketing saw its job as generating potential buyers called *leads*. Marketing achieved this through traditional advertising, public relations, and other promotional means which often lacked accurate measurable results. These leads were transferred to personal sales whose job was to contact these leads and attempt to develop and convert them into *actual* buyers – no longer *potential* buyers, but those who made purchases. So, marketing and sales have traditionally been in partnership, albeit one often lacking in collegiality.

In today’s digital world, marketing and sales silos can no longer deliver effective top-line revenue results. In fact, a convergence, blurring, or synchronization of marketing and sales has evolved in vanguard companies embracing today’s digital realities. And, in many of these companies, even the finance function – through optimized pricing – is converging in a systematic, coordinated, and unified top-line revenue effort. However, within many laggard companies, traditional marketing and sales practices continue even as obtaining top-line revenue becomes more difficult and as marketers and salespeople become more frustrated.

Why Traditional Marketing/Sales Methods are Failing

Edward Kellogg Strong (1922) first formalized the sales-centric approach building on the then current psychology theories of Freud and Adler. Surprisingly, and to this author's dismay, this 93 years old approach, in principle, continues to dominant both today's industry practices and academic sales and marketing books. This approach was dedicated to a seller-centric psychological and information control – read manipulation – of buyers. Sellers were the primary source of product/service information in an analogue age.

Traditional marketing and salesforce methodology has long been *sales-centric* – that is, often myopically viewing the economic exchange process from their side of the buyer/seller relationship. Although often operating in separate psychological and cultural silos, both functions were distinct, yet unified by a common goal: Top-Line Revenue generation.

The Sales Funnel Model. Marketers/Sellers had a clear view of the buyer/seller exchange process. Marketers saw their role as generators of potential buyers or *leads*. Simultaneously, sellers saw their role as converting potential buyers (leads) into *actual* buyers or customers. Marketer/Sellers envisioned themselves in control of an entire process and could control a potential buyer's progress through a series of steps or phases. They modelled the economic exchange process as analogous to a *funnel* into which *potential* buyers were poured into the top, were processed, and flowed out of the funnel bottom as they became *actual* buyers. Thus, was coined a common term, *Sales Funnel*, to describe a selling cycle which began with an *initial* potential buyer and ending with an *actual* buyer. This cycle was viewed as almost entirely controlled by both marketer and seller campaigns and actions. The shamanic marketers of the *Mad-Men* advertising years imbibed elixirs to stimulant and generate creative messages. Their intoned “magic words” and “visual apparitions” were intended to transfix potential target markets and lure potential buyers or *leads* into the top of the funnel.

Marketers then handed off these leads to the salesforce for further processing. Traditionally, human salesforces, assisted by supporting marketing campaign barrages, controlled both product/service information and the classification of potential buyers as they progressed through the *sales funnel*. These salesforces *pushed* their often biased or selectively slanted versions of product/service information to their specifically targeted potential buyers who often had no other source of seemingly reliable information.

These marketers/sellers controlled the initial discovery of potential customers, selected and allowed the potential's entry into the sales funnel, and actively developed, classified, ranked, and managed these potential customers. Using traditional selling terms, potential customers flowed into the selling funnel as *suspects*. By their actions or based upon the salesperson's intuited judgment, the potentials earned advanced status as *qualified prospects*. Upon making a purchase, they graduated to the status of *customers*. More recently, as the traditional salesforce began to evolve from transactional to consultative selling strategies and after-sale service became essential to convert newly acquired *customers* into *clients*, also called *accounts* - attaining this final designation acknowledged the need for retention, repeat, and referral business.

Salespeople as Metaphorical Hunters in Control. Traditionally, and with a bit of pride in their perceived mythical role as independent, self-sufficient, risk-taking hunters, salespeople once saw and often continue to see themselves as hunters of prey. They are on an active hunt for the elusive potential (*leads*) and hoped-for, actual buyer.

But, things began to change. The former *prey* has become difficult to engage – it's harder to obtain and engage potential buyers' attention. Traditional marketing finds it difficult to attract attention – for example, pervasive one-way paid advertising messages are pumped to message overloaded target markets. Public relations is often seen as self-serving and unreliable spin by audiences empowered by independent information sources available on the Web.

Traditional sales finds it difficult to attract attention – for example, potential buyer status is either in a *Need* or *No Need* stage. When buyers are in a *No Need* stage, salespeople pursuing traditional *cold-calling* become even more inefficient than they were in the past and even off-putting to the potential buyer. In fact, this old traditional method is often negatively termed, *Interruption Marketing* by many targeted potential buyers as

they refuse to take these unsolicited telephone or e-mail communication attempts. When potential buyers are in a Need stage, they prefer to conduct significant research prior to engaging with a sales person. So, how does a salesperson obtain qualified leads when no potential buyer takes his phone call, considers him/her to be a pest when he calls, and/or prefers to gather information independently from talking with a salesperson? Is traditional *Cold-Calling*, the traditional source of salesperson generated *leads* dying? Some observers believe so or that the approach must be dramatically rethought (Woods & Shootman, 2011).

The former *prey* is also increasingly invisible to the traditional marketer seller. Recall that the traditional map to the exchange process was termed the *Sales Funnel*. This map's sales-centric view estimated a *potential* buyer's place and classification along a series of stages: from the initial potential buyer entering the top of the funnel, through various processing stages, and ending at the bottom of the funnel with an *actual* buyer making a purchase. This process was in the marketer/seller control. But this control was dependent on marketer/seller control of information and those days are clearly in the past. The result is that most potential buyers remain invisible to sellers until they have traveled 50% to 70% through the traditional *Sales Funnel* (Fernandez, 2012). **Note:** Before the Web, sellers controlling the funnel were aware of potential buyers at the time they first entered the top of the funnel.

The Hunter Myth under Siege. Today, rapidly evolving Internet communication tools have created a *buyer-centric* marketplace reality. Buyers today choose when, where, and from whom they will buy – they are in control of access to product/service information, formerly dominated by sellers. Potential buyers now seek this information on their own time and at their own pace. They have aggressively transformed themselves into the dominant power-player within the buyer/seller exchange relationship. The former *hunter* – the salesperson – is now the hunted. Power roles have been reversed.

No wonder that traditional top-line revenue marketers/sellers are increasingly frustrated and ask themselves, “Just what is happening and why are my old methodologies not working as before?”

What Rethinking is Needed

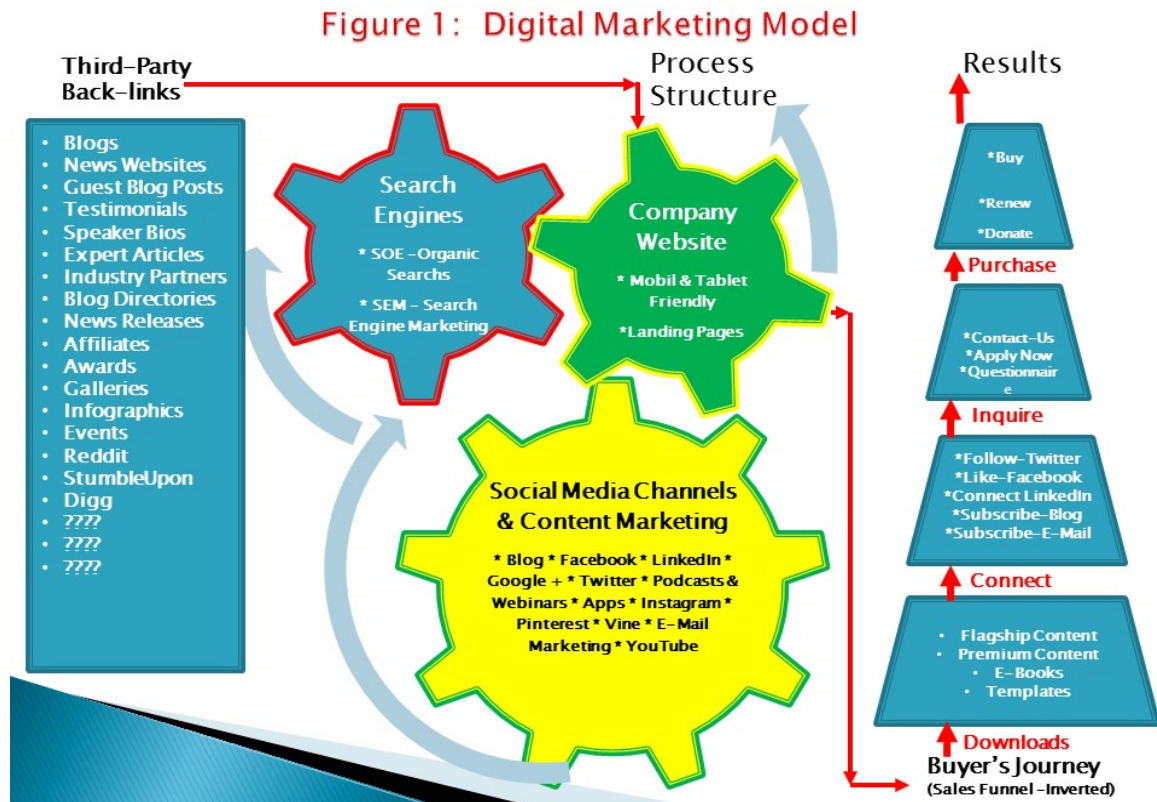
The Seller's Power has Been Reversed. Beginning about 1995 with the appearance of the first popular Web Browser, *Mosaic*, accelerating with the birth of social media around 2003, and today, economic exchange power, through information access, has increasingly shifted to the buyer. As buyers began to control information previously controlled by salespeople, they also began to control another domain once commanded by marketers/sellers: the potential buyer's beginning to end journey through the traditionally and variously termed, *sales funnel*, *sales pipeline*, *sales cycle* and other similar seller-centric descriptive terms. A visible buyer in the *Sales Funnel*, discussed earlier, is being replaced by an invisible buyer traveling a *Buyer's Journey*.

Today's buyers of products/services – especially in B-2-B markets of high complexity, risk, and need for product/service customization – no longer initially look to *pushed* information traditionally supplied by or originating from the product/service salesforce. Thus, these new buyers are the invisible until they voluntarily choose to reveal themselves to sellers. And, they often come out of hiding more than 50% through the traditional marketing/selling funnel). These *Self-Educating Buyers* must be attracted or pulled to a seller's value offering. As stated earlier by David Meerman Scott (Franklin & Jenkins, 2014, Foreword), buyer attention and the sale must be earned – earned on the buyer's terms. The Internet, specifically Google driven information search and interactive Web 2.0 communications has shifted economic exchange power from the seller to the buyer.

A Digital Marketing Model – See Figure 1. So, let's rethink the traditional seller-centric *Sales Funnel*:

The goal of Digital Marketing is to attract potential buyers to the Company Website. From there, both online and offline marketing/sales methodologies are used. **NOTE:** Instead of traditional marketing/sales using advertising and/or Cold-Calling to gain the attention and attract potential buyers, Digital Marketing relies on attractive *Content* to bring the potential buyer to the Company Website (to be further explained below).

Figure 1: Digital Marketing Model
Adapted from (Bluewire Media & Scott, 2014)



The Digital Marketing Model Briefly Described – See Figure 1.

1. Three Major Component Parts:

a. **Process Structure** – This is the heart of the model and contains three sub-components:

(1) **Company Website** is the engine or central place where all potential buyers eventually land in order to make product/service purchases or to travel the **Buyer's Journey** (which is an inverted traditional *Sales Funnel* that has had funnel stages renamed to reflect the buyer's intended actions).

(2) **Search Engines** – This is connection that is linked to the Company Website – such as Google, Safari, Bing, Firefox, etc. The company is concerned with SEO (Search Engine Optimization) that maximizes *organic* searches (the company website appears in the search engine based on keywords) and SEM (Search Engine Marketing) which is paid advertisements that bring the company website to the top of a search engine page.

(3) **Social Media and Content Marketing** – This is where the Company Website is linked in **Social Media** sites like *Facebook, Twitter, LinkedIn, YouTube*, etc. Essentially, a marketer/seller publishes **Content** (attractive articles, videos, discussions on sub-groups of Social Media sites, etc.) to attract an audience. Additionally, a company or individual might start a Blog representing that company with links connected to the company website. The audience sees the company website and is encouraged to visit the site to learn more and/or begin the **Buyer's Journey** (Pulizzi, 2014 and Albee, 2015).

b. **Third-Party Backlinks** – These are also purposed to drive audiences of **Content** to the company website. These are unlike standard **Social Media Channels** like Facebook. A company might partner with an established (Independent/Freestanding) Blog and write for that Blog – a link would be included in the article and connected with the company website. The Digital Marketing Model suggests many but certainly not all partnering relationship possibilities (Schaefer, 2012).

c. **Buyer's Journey (Funnel)** – It is an inverted traditional *Sales Funnel* that has had funnel stages renamed (differently from the traditional selling-centric *Sales Funnel*) to reflect the buyer's intended actions but now viewed through buyer-centric lenses. This journey assumes that the potential buyer is first attracted to the company website by model **Process Structure** components mentioned above. As *Self-Educating Buyers*, they are first invited to enter the *Buyer's Journey* at the beginning of the funnel and incrementally gain advanced education and eventually reach the fourth stage – *Purchase*.

NOTE: For B-2-C (Business-to-Consumer) markets, the potential buyer might enter the Buyer Journey funnel and immediately move to the fourth stage, *Purchase* (Shopping Cart/Check-Out). For B-2-B (Business-to-Business) markets, the journey usually first educates, then requests contact with a live personal salesperson in the stage, *Inquire*. After this, the final purchase stage may be entered. **The Buyer's Journey** labels four (4) potential buyer action stages (Bluewire Media & Scott, 2014):

(1) **Download Stage** – The *Self-Educating* potential buyer attracted to the company website is searching for more information. They may first visit to download e-books, templates, etc. But, to obtain this, they are invited to fill out basic content information such as name, e-mail, affiliation, etc. This information is captured by the company into a database and *Cookies* (URL identifiers) are captured.

NOTE: Marketers are advised to build data bases over time and adding more database fields each time the potential buyer visits the company website – not to require too much data input at each visit since visitors will have the tendency to leave the site due to too much effort (Zimmerman & Ng, 2013).

(2) **Connect Stage** – Here, the potential buyer continues self-educating. They may subscribe to the company blog, follow the company on Facebook, or other online means to continue gathering information. This generally amplifies the potential buyer's connection and knowledge of the company and product/services.

NOTE: While the potential buyer's progression in the *Buyer's Journey* funnel has been described linearly, actions within this funnel are variable – thus, at the *Connect* stage, for example, the potential buyer may temporarily move back to the *Download* stage or in the *Download* stage may jump over the *Connect* stage.

(3) **Inquire Stage** – Here the potential buyer – most commonly the B-2-B buyer - decides that they have had adequate self-education and now needs to obtain more detailed information. So, they request contact with a live personal sales person. This stage may or may not culminate in the fourth stage, *Purchase*.

NOTE: Here traditional sales techniques are generally used although, old hard *Transactional* sales techniques are now replaced with modern soft *Consultative* sales techniques.

(4) **Purchase Stage** – This is where top-line revenue *Results* flow into the company.

2. Some Brief Remarks Regarding the Digital Marketing Model - See Figure 1.

The *Digital Marketing Model* does not replace traditional marketing/selling practices. Both compliment each other although both require a clear buyer-centric view of the buyer/seller economic exchange relationship.

Whereas traditional marketing/selling were more of an art than a science, there is more *science* associated with the *Digital Marketing Model*. Online analytics that measure the *Invisible* and *Self-Educating* potential buyer are essential to track progress through the *Buyer's Journey* (funnel).

An environment surrounding the Digital Marketing Model was not shown. A feedback loop of Social Media comments from both satisfied and non-satisfied buyers is the hallmark of the online world. Reputation Management is the term for a company's monitoring and responding to buyer/user online feedback. This is an essential part of the Digital Marketing system (Stradtman, 2012 and Woods, 2009).

Individual salespeople who find that their companies are reluctant to wholly adopt a Digital Marketing Model approach are advised to consider developing their own digital presence and personas through social scoring platforms such as *Klout*, *Kred*, *PeerIndex*, and others (Updyke, 2013 and Schaefer, 2012).

CONCLUSIONS

Top-Line Revenue Frustration

For almost 93 years, traditional marketing and sales have practiced and taught a selling-centric methodology. This, up until today, has been successful. But within the last one and one half decades, radical changes in the buyer/seller economic relationship have occurred. These changes not only are confusing to traditional marketers/sellers, they are exponentially evolving in real time. Therefore, marketers/sellers are experiencing less effective top-line revenue results. No wonder they are frustrated.

Why Traditional Sales/Marketing Methods are Failing

In addition to general resistance to change, there are two major structural reasons: (1) Power has shifted from the traditional marketer/seller as buyers anonymously and independently seek product/service information and (2) The traditional linear selling-centric *Sales Funnel* is not directly visible or controllable by marketers/sellers and has been replaced by a non-linear buyer-centric *Buyer's Journey* (funnel).

What Rethinking is Needed

This paper has offered an adoption of the *Digital Marketing Model* as a systematic solution to marketing/sales frustration with general confusion and ineffective results from their present practices. While vanguard companies not only systematically embrace the new digital realities, they are inventing new approaches. The target audience of this paper are the many laggard companies who are subject to marketing/selling frustrations. The need to rethink their present practices and accept the new digital world realities. They need to make serious efforts to adapt their dominantly traditional marketing/selling organizations.

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RELIGIOSITY IN MANAGEMENT: PREDICTING THE NEAR FUTURE

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ABSTRACT

Many companies have used religion to find meaning and purpose for their business and organization. Today, the world has increasing religiosity and decreasing religion practices. That is why it is problematic for businesses to deal with this change. With this problem in mind, the pertinent research question is threefold. First, is there a set of beliefs that favors the insertion of religiosity into the business world? Second, what challenges arise from changing levels of religiosity? Third, what are the managerial implications of the new perceptions of religiosity? Major findings indicate a customization of religion. Customization produces highly a heterogeneous texture in spiritual capital which would complicate managerial efforts as compared to a situation where there is a higher homogeneity of religious capital. Other findings suggest that businesses can give up spirituality altogether, or find new ways to incorporate it in the workplace.

Keywords: Spirituality in management, religion, individualism, spiritual capital, customization of religion

PROBLEM AND OBJECTIVE

A survey conducted in the United States (Pew Research, 2010) reports that people between 18 and 29 years of age show declining interest in being religious as well as a low propensity to join religious denominations when compared to older people. As a result, they report lower attendance to religious services, giving less importance to religion in comparison to older people. However, the same survey points out that these youths state that they pray every day and believe in God at rates similar to previous decades. Many companies have used religion to find meaning and purpose for their business and organization. Their efforts, until recently, relied on the foundations of specific religions. However, although they now see a decrease in religion practices, they see an increase in religiosity. Because of this, they have to resort to different approaches in order to account for this weakening bond between religiosity and specific religions. This is what prompted this investigation.

But to follow the paradigm of religiosity, businesses will be faced with the weakening of religions. That is why it is problematic for businesses to deal with this change. With this problem in mind, the pertinent research question is threefold. First, is there a set of beliefs that favors the insertion of religiosity into the business world? Second, what challenges arise from changing levels of religiosity? Third, what are the managerial implications of the new perceptions of religiosity?

BACKGROUND

To answer these questions, this research explores some pertinent concepts: spiritual capital, religious capital, extrinsic religiosity, intrinsic religiosity, and individualism.

Spiritual Capital and Religious Capital

Spiritual capital is related to the concept of religiosity, and is perceived by an individualization of believing and acting, and the relativization of beliefs (Lipovetsky, 2007). This individualization succeeds the individualism that, in recent years, has gained importance (Cukur; De Guzman & Carlo, 2004) for describing differences and similarities in culture studies.

Spiritual capital gathers answers to uncomfortable arguments about spirituality when individuals ask questions such as, "Who am I?" and "Why am I here?" (Greenhaus & Dust, 2013). From the answers, they build visions of the world that convey existential sense and offer cultural norms for what should be valued in life. Thus, spirituality develops an existential understanding that arises from the search for the sacred (Greenhaus & Dust, 2013). Therefore, these visions form a link to the present concept of religiosity, which is propagating in the world due to the growth of individualism.

Yet, there is a confounding factor when discussing religious capital because religiosity and religion are often represented as similar concepts. Malloch (2015), for instance, makes religiosity a central concept in his definition of spiritual capital, but he does not distinguish spiritual capital from religious capital, as Baker & Skinner (2003) do.

Behind the notion of religious capital lie many tangible actions associated with religion. For example, Balog, *et al.* (2014) endorses the definition of religion as a code of beliefs linked to rituals and doctrines. Because of the code of beliefs, the perception of religion is frequently one that fosters intolerance and creates divisions, such as "believers" and "unbelievers." In a given code of belief, there are significant amounts of collectivism and similarity that differ from other codes. That is, different codes of beliefs can create divisions and distinctions in religious capital. In spiritual capital, there is no code of beliefs to create divisions.

Extrinsic Religiosity and Intrinsic Religiosity

There is one final caveat on people's approach to religion, distinguished by intrinsic religiosity and extrinsic religiosity. In intrinsic religiosity, a person determines his or her creed, and makes individual efforts to follow it and live it as a real purpose. In extrinsic religiosity, a person does not interject a strong belief, but merely instrumental values, such as the feeling that religion serves some purpose. Its main purpose is not to serve God, but to attend church to exploit it and get something in exchange (Allport & Ross, 1967).

Individualism

Change occurs as a new generation rejects the values of a previous generation. Generational changes have to be accepted because the world will not wait for companies that lag behind. Managers know that individualism will override the collectivism built by older generations. Companies are being challenged by a multiplicity of beliefs that obstruct the formation of collectivist approaches.

Members of this newer generation associate decisions with individualism (Motta & Schewe, 2008). Accordingly, they elect an individualized religiosity that stems from the very nature of individualism. As they establish goals that benefit themselves, they may adhere to religiosity, but only under extrinsic formulation. They reject religious capital because it gathers too many integrative choices.

Organizational Challenges

It should be clear to organizations that while religious capital is observable, spiritual capital is not. Thus, being dimly observable, spiritual capital portrays the values, ethics, and beliefs that a community of faith brings to society. Religious capital, in turn, brings practical contributions to society from the results of concrete actions of an organization.

In short, companies in today's world find growing attention on spiritual capital rather than religious capital. Accordingly, they will face more individualism than collectivism, and therefore, have difficulties generating homogeneous congregations.

If business endeavors turn to religiosity to solve organizational problems, they will encounter what Malloch (2015) specifically suggests: success does not happen by chance, but through virtues such as faith. Malloch adds that the organizational world is a test of moral life that warrants goodness. In fact, goodness happens because spiritual discipline influences people's personalities. Cavanagh (1999), in turn, assumes that spirituality makes workers more focused on the important aspects of life, including God, family, other people, and the world being passed on to future generations.

METHOD

The method used in this investigation involves three phases. In the first phase, researchers explore the understanding of religiosity in college students through qualitative interviews. They learned that the interviewees had a poor understanding of the concept of religiosity and had difficulty answering questions on the topic. Some also questioned the purpose of the research, presuming that it could be somewhat intrusive. It could be misinterpreted as an initiative of the university administration rather than of academics doing research in the business school.

Researchers decided on two points. First, they decided to adopt a general approach by asking questions in a projective manner, and to avoid direct personal questions. Second, they were not to ask personal questions, such as religious preferences and school standings.

In the second phase, researchers developed a questionnaire blending the interview data with materials from the pertinent literature. The questionnaire was 38 questions based on a set of beliefs that researchers thought favored the insertion of religiosity into the business world.

Researchers tested the questionnaire twice for clarity of content and question formulation. Many issues emerged in these pretests. One issue pointed to questions that did not provide the quality information researchers wanted for the set of beliefs. All questions regarding these five themes were formulated in a Likert-type scale of five points: strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree. The questionnaire included three questions related to the religiosity of the respondent. The first question was how often the respondent thought of God. The second asked the frequency the respondent went to church/temple. The third question was about regularity of prayer.

A subsequent factor analysis revealed a low level of commonality for those questions. Therefore, the researchers decided to limit the analysis to questions pertaining to two factors, one with seven questions and the other with only one question. As previously stated, the questionnaire did not include questions that sought personal data or the religious identities of the respondents.

In the third phase, they administered the questionnaire to a convenient sample of 250 undergraduate college students. Respondents were students at a private university in Rio de Janeiro. The study adopted the filter that only students who claimed to believe in God answered the questionnaire. This filter eliminated about 10 percent of the students approached. Out of the 250, researchers received 241 usable questionnaires.

RESULTS

Table 1 shows respondents' regularity of spiritual actions. These results are in line with Pew's research results mentioned above. The fact that the frequency of going to church/temple falls behind other religious actions deserves attention. Practice of religion such as attending religious services is linked to the observance of religion doctrines.

Table 1 - Frequency of religious actions

Frequency	At least once a day	At least once a week	At least once a month	Never
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Thinking of God	52.8%	32.5%	11.7%	3.0%
Going to Church/Temple	0.4%	11.3%	35.5%	53.8%
Praying	30.7%	28.1%	26.0%	15.2%

Table 2 presents the results in the following manner. Likert-type scales measure a set of items on a level of disagreement/agreement in a symmetrical composition. A symmetrical composition means two disagreement categories and two agreement categories separated by a neutral category. To facilitate understanding, the options "strongly agree" and "agree" were combined in a single group, "agree." The same procedure produced the label of 'disagree' for the sum of "strongly disagree" and "disagree." Accordingly, due to these procedures, Table 2 presents the statements that comprise the set of beliefs, and the percentage of respondents who agree or disagree with them.

Table 2 - Level of concordance (Rounded percentages)

Number	Statement	Agree	Disagree
1.	I think that people with greater religiosity pray for the happiness of other people.	76%	7%
2.	I believe that students with greater religiosity have better relationships with other students.	20%	52%
3.	I believe that students with greater religiosity have better academic performance.	9%	65%
4.	I believe that students with greater religiosity have more initiative to make friends.	14%	57%
5.	I believe that students with greater religiosity are more hardworking.	19%	51%
6.	I believe that students with greater religiosity help more students who have learning difficulties.	35%	39%
7.	I believe that students with greater religiosity give more priority to studies.	15%	52%
8.	I believe that students with greater religiosity are more responsible.	33%	39%

Question 1: I think that people with greater religiosity pray for the happiness of other people. (Agree = 76%, Disagree = 7%)

Researchers expected respondents to make the connection between religiosity and happiness. The result confirmed this expectation. It suggests that religiosity, through prayer for the happiness of other people, sows harmony in the work environment. Employees tend to create an environment of healthy competition at work, made of those who are concerned about each other.

A study by Myers (2000) indicated that those with higher religious practice also had higher levels of happiness. Following a similar path, Singhapakdi *et al.* (2012), in a more recent study, sought to understand the influence of religiosity on ethical decision-making. They questioned whether people pray for peace and happiness of others under extrinsic religiosity. Their findings showed that individuals tend to favor benefits they can expect by practicing their religiosity.

Question 2: I believe that students with greater religiosity have better relationships with other students. (Agree = 20%, Disagree = 52%)

This statement suggests a beneficial connection between religiosity and relationships with other people in organizational life. However, the level of disagreement questions whether religiosity is a way to build good

relationships. Accordingly, greater religiosity is not an indication that will, for example, favor contact with customers.

Conversely, Westerman & Whitaker (2014) demonstrate a benefit that religiosity brings to their supporters. They lined up spirituality with organizational values and showed that people who believe in God focus more on team goals. Thus, spirituality brings a different meaning to the work environment, which increases the sense of connection between employees. In turn, employees may feel more open to express their own spirituality (Rego, Pina & Cunha, 2008). With this in mind, it may be proposed that spirituality favors better relationships in working environments. However, the findings of this present research do not support such a proposition.

Question 3: I believe that students with greater religiosity have better academic performance. (Agree = 9%, Disagree = 65%).

Researchers expected a positive impact of religiosity on academic environment. However, the result shows that is not the case. Consequently, the perception of religiosity cannot be linked directly to better performance. Yet, Petchsawanga & Duchon, (2012) add that employees with a connection to spirituality tend to perform better at work. But these findings do not indicate that religiosity can be perceived as a factor that generates better results at work.

Question 4: I believe that students with greater religiosity have more initiative to make friends. (Agree = 14%, Disagree = 57%)

This assertion highlights the effect of religiosity on socialization practices in the academic environment. Researchers expected respondents to agree with the assertion, since religiosity has proven to be a factor that encourages sociability. However, the majority of respondents did not agree. Therefore, religiosity may not be a factor promoting socialization among employees. That does not mean, however, that employees with higher religiosity should not assist in the integration of new employees, or should not work closely with new customers.

A study that sought to understand the consumption practices of young Catholics revealed that interaction with others comes high in their choice criteria (Araujo, Vieira & Turano, 2013). This study states that some people attend retreats with the intent of making new friends who have spiritual values similar to their own.

Question 5: I believe that students with greater religiosity are more hardworking. (Agree = 19%, Disagree = 51%)

Researchers expected a positive relationship between effort and religiosity. However, the respondents greatly disagreed. The statement suggests that people with higher religiosity would contribute more to organizational life. Nevertheless, results warn companies not to place expectations of higher performance on employees with high religiosity. The most important element is to understand the capability of the students (Bardelli & Maluf, 1984). While this may be true, respondents did not allow researchers to infer that greater religiosity is connected to the perception of capacity, via perception of effort.

Question 6: I believe that students with greater religiosity help more students who have learning difficulties. (Agree = 35%, Disagree = 39%).

Religiosity is perceived as a beneficial factor in relationships, and, therefore, researchers expected more agreement than disagreement for this statement. This result indicates that the assembly of internal resources based on religiosity, to help employees with difficulties, can abort. This alleged cooperation suffers from the weak link of religiosity with a willingness to help others.

However, companies can still engage people through the link between spirituality and pro-social behavior. Furthermore, it is known that individuals with stronger ties to spirituality feel the responsibility to engage in pro-social behaviors (Neal, 1997); such conduct favors helping other people. It is possible to find help in the connection between meditation and therapeutic results, as proposed by Petchsawanga & Duchon (2012).

These authors also found importance in questioning people as they tried to help coworkers to alleviate their sufferings.

Question 7: I believe that students with greater religiosity give more priority to studies. (Agree = 15%, Disagree = 52%)

Researchers expected the respondents to agree with the statement, but they did not. For this reason, research could not extend the statement's assumption to an organizational environment. Employees may not prioritize their work assignments according to their religiosity. Businesses, in turn, may not consider religiosity as a factor in career patterns.

To this end, corroborating the expectations of the researcher, Malloch (2015) states that knowledge and wisdom are important tools to give meaning and purpose to spirituality. He further says that wisdom is what finds solutions to the problems of capitalism and lack of ethics in today's world. In short, he thinks the wisdom gathered in the studies undertaken by world religions is what yields ethics and best decisions.

Question 8: I believe that students with greater religiosity are more responsible. (Agree = 33%, Disagree = 39%)

The result leans toward disagreement, as respondents do not perceive religiosity as generating more responsibility in general attitudes. But Ammons & Edgell (2007) support that religiosity in individuals helps generate more responsibility in their families. In contrast, they did not perceive religiosity as an influential factor that built responsible behavior in other contexts.

CONCLUSION

This article began by raising three questions. Is there a set of beliefs that may favor the inclusion of religiosity in the business world? What challenges arise from changing levels of religiosity? What are the managerial implications of the new perceptions of religiosity?

To answer the first question, the researchers performed a factor analysis. The first factor amalgamated seven variables from questions 2 to 8. None of those variables had a positive association with the level of religiosity. Therefore, this set does not uncover a path for the inclusion of religiosity in the business world.

The second factor, based on question 1, captured only one variable which is related to the happiness of other people. This is the only factor that probes the perception about people in general, rather than the respondent's peers or fellow students. The researchers found that this was also the only factor to have a positive perception of religiosity. It may be inferred that attitudes towards people in the workplace will be different from attitudes toward people outside of the work environment.

The second question examines the challenges arising from the increase in religiosity. This religiosity is not based on any given religion, but comes from the individual's development of his or her own spirituality. This trend can be attributed to the rise of individualism. Because it favors extrinsic religiosity and focuses on individual rather than collective interests, individualism makes things more complicated for management. As people disconnect from the established religions, they tend to customize their religion, including moral values. The results show that the needs of others are given low priority. Based on this, it can be inferred that the customization of religion leads to a decrease in intrinsic religiosity. Customization produces highly a heterogeneous texture in spiritual capital which would complicate managerial efforts as compared to a situation where there is a higher homogeneity of religious capital.

The final question addresses the challenges of profiting from religiosity, i.e. to reap benefits in organizational life. The respondents of this research disagreed with the proposition that religiosity may have a real impact on the behavior of other people. They do not see benefits in including religiosity in their environment. The Pew research quoted above reveals that many people think the present trends are good. What can companies do? They can give up spirituality altogether, or find new ways to incorporate it in the workplace.

It has been found that believing in God or praying frequently is not sufficient to bring religiosity into the workplace.

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CHANGE MANAGEMENT IN SCHOOLS. WAS ENOUGH DONE TO ALLAY FEARS OF ALL SCHOOLS STAKEHOLDERS DURING THE MERGING AND CLOSING DOWN OF SCHOOLS THAT ARE SEEN NOT TO BE VIABLE?

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ABSTRACT

In this paper the researcher look into rationalization as the cause of change and what the department of education did to manage the change and prepare workers to be ready for the change that was about to affect their life. I investigate as to whether the department of education was able to manage change that the educators and principals were facing due to the rationalization of schools. Participants were 65 educators, heads of departments and principals with ages ranging between 21 years and 55 years ($M = 35.4$; $SD = 9.6$). The results revealed that participants were not prepared beforehand for the coming change. Their stance is that change that was to affect their lives was not well managed. It is recommended that the department of education should contact with educators and their unions before effecting any change since this will allay fears that educators may have to. Limitations of the study are also advanced.

Keywords: Change, management, rationalization, schools, educators

INTRODUCTION

Change is one thing that human beings cannot run away from. The international and national education world (environments) is continually exposed to change. In our schools change comes in a form of changed syllabus and changed staff at the school. Schools in South Africa are not excluded from the consequences of change. South Africa has experienced drastic economic and political changes since 1994. These changes involved changes in government, affirmative action and changes in the education system (Smit and Cronje, 1997). The North West province in South Africa is mostly rural (Department of Education, 2012). The larger part of this province was part of Bophuthatswana before it (Bophuthatswana) ceased to exist in 1994 due to political changes in South Africa. In the erstwhile Bophuthatswana, schools were divided into four types. These were the Early Learning Centres (ELC), the Primary schools starting from grade 1-6, the Middle schools starting from grade 7-9 and the High school starting from grade 8-12. The coming into being of a new South Africa after 1994 meant that the education of the entire home lands which Bophuthatswana was part of, had to change. To be relevant, and competitive, schools have to continually adapt to change (Molepo, 2014). Far-sighted managers see change as a challenge, as an opportunity to take advantage of changing conditions and of becoming more competitive.

THEORETICAL FRAMEWORK

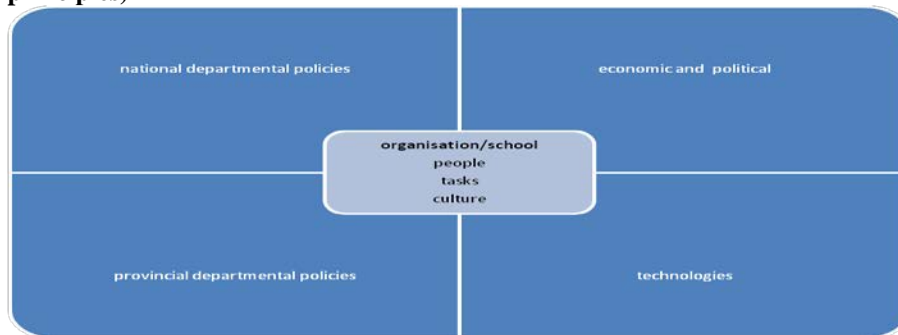
Change management as something external, visible, such as a new organizational structure, new official, merger or acquisition. Organisational change might be defined as a process within an organisation takes on a new idea to become different (Kotter, 2011). Any organizational change is followed by 'new rules of the game'. These rules may be perceived as either coercive or progressive. Change management must start with leadership. Organizations that embark on change without dealing with their top management are wasting time and

organizational resources. The necessity to change may be brought about by factors in the external environment of the school or within the school itself. It has to be stated that almost all organisations, schools included has to undergo minor adjustments in reaction to change. Due to change, the human resources department may initiate certain training programmes (Dean, 2009). These changes are called routine changes and are distinguished from planned change in magnitude and scope. Routine change is minor changes and as such do not affect the school as a whole, these changes may also be called reactive changes because they are a response to problems as they develop. The reaction changes are at times done in haste and as a result are seen to be poorly planned and poorly executed (Whelehan, 1995). In this study, the change that took place was informed by rationalization, whereby some schools merged and others were closed. The process of rationalization of schools is informed by various policy dictates, but primarily the Ministerial Committee on Rural Education (2005) that proposed that all public or ordinary schools should be primary (grade R-7) or High schools (grade 8-12). Rationalization is the process through which this end is being achieved. The main intention of the Department of Basic Education (DoBE) is to align the schooling landscape (Botha, 2004). The North West province, unlike other provinces in South Africa has a different type of schools including Middle schools, which constitute a unique feature in the schooling landscape since the new dispensation does not cater for it. What is actually happening is that rationalizations in schools have revolved around middle schools. This study looks into change management that was brought about by rationalization of schools, looking specifically on the middle school and how educator, head of departments and principals were prepared for the anticipated change.

Rationalization was a planned change (Molepo, 2014). Planned change involves the entire organisation or a major part of it, in this study it means the circuit or schools in a circuit have to adapt to significant changes in the organisation (department of basic education) s goals or direction, in reaction to expected change in the external environment. This change is designed and implemented in an orderly and timely fashion in anticipation of future events. The rationalization of schools was a planned change to happen in schools. This was done with the aim of that stage and programmes of rationalization would be executed properly without undue pressure hence rationalization is viewed as a planned change. There are mistakes where rationalization was not well communicated and managers of schools were forced into quick, superficial change because of pressure for deadlines. Such reactive change is often poorly planned and executed. Forces of change are the forces that exist from both within the organisation and its external environment. As a result, change results from both internal and external forces. There are a lot of different forces inside an organisation that may cause change, there are referred to as internal forces. The internal forces arise from the challenges of creating an organisation structure capable of facilitating the attainment of the organisational goals. Change in the organisations` goals or objectives are in most instances likely to result in organisational change. It has to be stated that some internal forces may be the direct reflections of external forces. This might be seen in that as sociocultural values change/shift, workers` attitude towards their work may also change. New communications channels, amongst others, have to be established. Managers and supervisor competency training has to be implemented (Marquis and Tilcsik, 2013). External forces for change derive from the organisation`s microenvironments. In the international element of the microenvironment, a foreign competitor may introduce a new product or increase or decrease prices. In the political element, new laws and regulations, such as new labour laws can affect the organisation. Organisations may have to undertake change in the following four areas: strategy, structure, technology and people (Smit and Cronje, 1997). People believe that if and when change is made in one of the above –mentioned areas that change will generally also bring change to another. For example, a change in the structure of the education system will have an impact on the people, be they educators, parents and or office-based education employees. Strategic plans in most instances outline the future course of the organisation, taking into account internal and external environments. There is always change in the education system of South Africa (Molepo, 2014). There has been the introduction of the Outcomes based education (OBE) in 1997 to overcome the curricular divisions of the past (Department of Basic Education, 2011). A review of this curriculum was undertaken and that resulted in the Revised National Curriculum Statement (RNCS) (2002). Ongoing implementation challenges resulted in another review in 2009 and then the Revised National Curriculum Statement (2002). All these changes show that education is not static but changes with time. Structural change involves the change in basic components of the organisation, decentralisation, increasing authority for example, due to rationalisation schools had to merge and as a result there was alignment to be made, educators had to serve under new leaders and different departments had to restructure so as to include new-comers. Technological changes amongst other things involve altering equipment, engineering processes, research techniques and/or production processes.

In our schools, this change was seen when schools merged and one bringing with itself new technologies like computers and using new equipment that was not used before the merging. Change in people involves changes in the performance, skills, attitudes, perceptions, behaviours and expectations of people. When organisations make a cultural change, this change is also called change in people. The rationalization of schools led to merging of schools, educators from middle schools were now expected to work in secondary schools and as a result this ended as change in people. Change can be viewed as a process that has four distinct steps. These are denial, resistance, exploration and commitment. Denial this is when there is an anticipation of change and workers ignore the facts and as a result pretend that the change that is anticipated will not affect them personally. In schools in the North West province most educators that were told that rationalization will be affecting them acted as if it was not going to affect them. Most even did not believe that rationalization will be implemented. Resistance happens once the employees who did not believe that it will happen see it happening. It has to be stated that it is quite natural for people to resist change.

Figure1. External forces of organisational change (adapted from Smit and Cronj`e 1997: management principles)



Exploration happens after the implementation of change, employees are then exposed to new information and training. This then leads to a better understanding (after being told the importance of rationalization and the merging of schools, educators and other stakeholders understood what rationalization entailed). Commitment is after employees have explored the change that is effected, they start to have some level of commitment. After the implementation of rationalization, stakeholders started to have a clearer understanding and commitment; they now knew that the closed schools could be used for housing other community projects. Most people anticipate change and tend to resist the anticipated change. Change triggers emotional reaction because of the uncertainty involved (Smit and Cronje, 1997). It is always important for managers in organisations to plan resistance to change. Reasons for resistance to change are amongst others: threatened self-interest, lack of trust, lack of understanding, different assessment and perceptions, lack of tolerance to change and things like disinterest, surprise, peer pressure and wrong timing (Phillips, 1983).

Threatened self-interest is where in most instances, employees care more about their personal interest and if they are threatened, resistance comes into place. This is due to the perception that change will make them loose something that they value (Molepo, 2014). This in rationalization can be seen in the fact that educators who were heads of departments felt that their positions were going to be affected when schools merged. Principals of closing schools were also worried about their positions since a school cannot be managed by two principals. Educators on the other hand felt that their prospects of being promoted were cut. This was due to the circular that indicated that all promotional posts in schools affected by rationalization should be frozen until rationalization was finished. Other educators resisted change because it inconvenienced them, this was seen in instances where educators were expected to use transport for travelling to the new school, something that they did not do before rationalization. Lack of trust and lack of knowledge on the anticipated change can lead to resistance to change. This is the case in institutions where there is a lack of trust between the parties involved. If there is no trust, what can possibly happen is that there will be distrust and suspicion and this may as a result end up being rumours and erroneous information. Different assessments and perceptions may also be reasons for resistance to change. In most instances people will evaluate the costs and benefits of the proposed change. The outcome will be that individuals will resist change if it means losing benefits he/she enjoyed before. Resistance to change will be there if benefits of the change are not well disseminated to all stakeholders. The common practice is that management is in most instances well informed about the anticipated change and are at times party to the decision about that change (Levin, 2012). As a result, employees or stakeholders are often exposed

to different, often less information than management and may not understand the full consequences of change. Low tolerance for change can also be a reason for resistance to change. This can be seen when people tend to have a low capability to accept change, this in most instances is encouraged by their inability to emotionally accept change. Resistance to change can also be encouraged by inertia which when people want to maintain the existing. In some instances change is resisted because the timing that change is effected does not suit people it is intended for. A sudden introduction of change makes it easy for stakeholders to resist it (Schmeer, 1999). Change should be introduced gradually and people should be abreast about what change entails (Anderson & Anderson, 2001). Effective communication is one of the best ways to dispel fears people have for change. Resistance to change has to be regarded as an important signal for further inquiry (Marquis and Tilcsik, 2013). It has to be stated that stakeholders' assessment may be more accurate than that of management; stakeholders may know that the anticipated change will not work. In such cases, resistance to change may be seen as good for an organisation.

THE NORTH WEST PROVINCE CONTEXT AND BASIS OF THE STUDY

The North West province, unlike other provinces in South Africa has a different type of schools including Middle schools, which constitute a unique feature in the schooling landscape since the new dispensation does not cater for it. The main intention of the Department of Basic Education (DoBE) is to align the schooling landscape (Botha, 2004). In the province, this started in earnest with the publication of a Gazette on school merger in 2007, Rationalization of Schools in the North West Province (2013-2016). The process of rationalization of schools is informed by various policy dictates, but primarily the Ministerial Committee on Rural Education (2005) that proposed that all public or ordinary schools should be primary (grade R-7) or High schools (grade 8-12). Rationalization is the process through which this end is being achieved. This study looks into change management that came as a result of rationalization of schools, looking specifically on the middle school and how stakeholders feel about the part played by the department of basic education in managing the change. Stakeholders in this study are limited to educators, heads of departments and principals. National Guidelines on school types provides the opportunity to streamline the process of rationalizing schools in the province. These guidelines essentially make provision for two types of public schools in the province viz. primary and secondary schools. Combined schools can only be retained or established with the permission of the Member of Executive Council responsible for education.

Rationalization of schools is also expressed in legislative frameworks of the constitution of the Republic of South Africa, 1996 (Act No.108 of 1996), National Education Policy Act, 1996 (Act no. 27 of 1996), and the South African Schools Act, 1996 (Act No. 84 of 1996) - Section 6 and Section 12A which deals with Merger of public schools. At this present moment, the North West province education landscape still carries with it the remnants of the legacy inherited from the past dispensation. That is, the North West province still has middle schools. Types of schools differ according to districts and even Area Offices. Rationalization was brought about since not all schools have Grade R as per Draft National Strategy on Early Childhood Development (Laying Solid Foundations for Learning. Version 6 of December 2011) as well as Action Plan 2014, Outcome no. 11; Middle schools where grades overlap between traditional and secondary schools (inherited from former Bophuthatswana) ; Harmonising the curriculum bands and phases; Grouping appropriate learner age and stage groups; In line with Action Plan 2014. Towards schooling 2025 (outcomes 1-13) address the challenges of the provision and quality education. The process of rationalization seeks to align schools to the National Policy on Types of Schools which maintains that only two types of public schools must exist, namely, primary schools and the secondary schools. Rationalization of schools in this study has to be understood in the context that it is there to establish primary and secondary schools according to national specifications. The expectation is that this process will improve the quality of education, expedite the resourcing of schools, promote access to schools and sustain learner numbers and the employment of educators in schools. This is the reason for this research. Researchers wish to find out if change that was to be effected was well managed by the departmental officials.

The significance of this study is on the fact that no evaluation has been carried out on what the department of basic education has done to manage the change that stakeholders underwent that happened due to rationalization of schools in the North West province. At least I never found any published article in this regard. I am of the

view therefore that this study would provide baseline researched information on what pertains at schools with regards to handling change since rationalization was about change in the education system. This information we felt would be useful to education authorities who can assist where there are identified problem areas.

METHOD

Participants

The targeted population comprised of teachers, heads of departments and principals from one region of the North West province. The region has 128 schools including primary, middle and high schools. This means that there were about 1 500 teachers, about 250 heads of departments and 128 principals. To select participants, simple random sampling was used. The first aim was to select a sample of approximately 10% of the schools in the population. The 10% was seen to be an ideal number considering that the population of 128 schools would in essence have meant that there were 1 875 eligible participants. That number of participants would be difficult to reach. In selecting the 10% of the schools a table of random numbers was used and 13 schools were finally included in the study. Specifically, each school was given a number ranging from 1 to 128. The numbers were then defined in the Research randomizer (2011) which generated different sets, and set 5 was selected. In selecting the 13 schools, this meant that automatically the 13 principals were selected. In selecting teachers from each school, the researcher assigned numbers from 1 to n (where n was the number of teachers in a particular school) and the Research randomizer (2011) was used to select one. Heads of departments representing each school were also selected in a similar manner as the teachers. This means that the sample was made up of 65 participants, comprising 13 principals as well as 13 heads of departments and 39 teachers. Participation by all individuals was voluntary because the purpose of the study was clearly explained to all possible participants. All questions and queries were addressed to their satisfaction. Examples of questions asked included (a) "... will you put my name in your report?" (b) "... will you report what I say to the department of education?" and so on. Following this process, it was indicated to the participants that if they so wished they could decline to participate.

Instrument and procedure

In this study both qualitative and quantitative methods of collecting data were utilized. In essence this was a mixed methods study. It is averred that the goal "...of mixed methods research is not to replace either of these approaches but rather to draw from the strengths and minimize the weaknesses of both in single research studies ... " (Johnson, & Onwuegbuzie, 2004, pp. 14 - 15). In a similar vein, it has been pointed out that when the two methods are used in combination, the weakness of one could be balanced by the strength of the other (Breakwell & Millard, 1995). The aim of utilising both qualitative and quantitative methods here was to use these as some form of triangulating findings. This means that one method was used in some aspects of the study to verify and corroborate participants' assertions and views in the other method. A questionnaire comprising two sections was used to collect data. The first section requested the participants to provide biographical data in terms of age, gender, highest academic qualification and work experience. The second section determined how the change was managed when rationalization was introduced. For example, participants were given definitions on change management where after they had to indicate whether these were done to make people not to resist change. The definitions were obtained from management principles literature (e.g., Moran and Brightman, 2001:111). For example a definition of change management was: "... the processes of continually renewing organisation's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers". Interviews were also used. The aim was to corroborate the responses received in the questionnaires.

RESULTS

Biographical data

Participants were 65 teachers, heads of departments and principals. Table 2 shows the biographical data that the participants were requested to provide. It may be observed from the table that the majority of participants were

men. Participants' ages ranged between 21 years and 55 years ($M = 35.4$; $SD = 9.6$). The table further reveals that the majority (56.9%) of the participants had completed either a degree and higher or a Master's degree. It is worth noticing that most of the teachers (72.3%) had teaching experience of 15 years or more. Where the teaching experience ranged between 5 years and 21 years ($M = 11$ years; $SD = 4.9$).

Table 2 Biographical information of the participants (N = 65)

Category		N	%
<i>Gender</i>			
	Women	31	47.7
	Men	34	52.3
<i>Age</i>			
	20 – 29	27	41.5
	30 – 39	13	20.0
	40 +	25	38.5
<i>Highest academic qualification</i>			
	Diploma (e.g. Diploma in primary education	28	43.1
	Degree or higher(e.g. B.A. or B.A. Honours)	22	33.8
	Master's degree	15	23.1
<i>Position held in school</i>			
	Educator	39	60.0
	Heads of departments	13	20.0
	Principal	13	20.0
<i>Teaching experience</i>			
	5 – 9	14	21.6
	10 – 14	4	6.1
	15 - +	47	72.3

Deliberations on change management

The response from participants gives a picture that change was not communicated to all stakeholders. This is seen in that all educators (100%) indicate that the departmental officials did not talk directly with them (Schmeer, 1999). They maintain that the whole issue of rationalization was given to them by principals and/or heads of departments. Educators also indicated that circulars from the department of education were made available to them. The snag was that people interpreted them differently and as a result they felt that it was going to be appropriate if the departmental officials were coming to schools. This, to educators was said and they believed that if they came to schools, educators will have had a common understanding of the anticipated change. One other interesting response is that all educators and principals indicate that they knew the reasons for the anticipated change. They indicated that they were aware of the changes in the country and had no choice but to accept the change. This said, they however indicated that they could have appreciated it if their concerns were entertained and their feedback was considered as important. It is also interesting to note that when responding to the question if did departmental managers provide them with realistic information the response was that 39 educators were of the view that they were given a realistic information.

Table 3 Frequency distribution and percentages on change management

Change management	Yes/No	Heads of		
		Educator	department	principal
1.Did the departmental managers provide a reason for the change to help you cope with your fear and apprehension	Yes	39 (100)	2 (15.3)	13 (100)
	No	0 (0.0)	11(84.7)	0 (0.0)
2.Did departmental managers provide you with realistic information	Yes	39 (100)	2 (15.3)	13 (100)
	No	0 (0.0)	11 (84.7)	0 (0.0)
3. Were the pros and cons of change made clear to you?	Yes	13 (33.3)	13 (100.0)	13 (100)
	No	26 (66.7)	0 (0.0)	0 (0.0)

4. Did departmental managers allow you to provide feedback?	Yes	0 (0.0)	13 (00.0)	13 (100)
	No	39 (100)	0 (0.0)	0 (0.0)
5. Were you allowed to offer suggestions to help with the change?	Yes	0 (0.0)	0 (0.0)	13 (100)
	No	39 (100)	13 (100)	0 (0.0)
6. Did the departmental officials communicate directly with you?	Yes	0 (0.0)	3 (23)	13 (100)
	No	39 (100)	10 (77)	0 (0.0)
7. Can you say that departmental managers responded to the fundamental need for control, openness and inclusion when implementing change?	Yes	0 (0.0)	0 (0.0)	9 (69)
	No	39(100)	13 (100)	4 (31)
8. Did the proposed change meet your expectations?	Yes	30 (77)	5 (38)	13 (100)
	No	9 (23)	8 (62)	0 (0.0)
9. Were promises made by managers to you kept?	Yes	8 (21)	13 (100)	8 (62)
	No	31 (79)	0 (0.0)	5 (38)
10. Do you feel that you were consulted for this change to take place?	Yes	0 (0.0)	3 (23)	13 (100)
	No	39 (100)	10 (77)	0 (0.0)

DISCUSSION

The results presented here have shown that the participants were relatively mature individuals most of whom (58%) were 30 years or older. They were well educated with 57% in possession of a degree or higher and/ or Master`s degree qualification. Also, 78.4% had good work experience because they reported that they had been working for 10 years or more. It was reported here that stakeholders felt that they were not well informed about the change that took place. An organizational change creates fear in workers affected by the change (Schmeer, 1999). Strong resistance to change is often rooted in deeply conditioned or historically reinforced feelings. Patience and tolerance are required to help people in these situations to see things differently. Bit by bit (Marquis and Tilcsik, 2013). Managing the change through planning, communication and listening to employee feedback can help to alleviate some of the fear. Different people respond to change differently. Those who prefer stability can respond to a proposed change with resistance and hostility without effective management. Change managers must respond to the fundamental need for control, openness and inclusion when implementing a new process in an organization (Levin, 2012). Most of the respondents indicated that they were not taken on board during the deliberations on rationalization.

Ignoring issues relating to change management may result in people resisting the anticipated change (Molepo, 2014). Overcoming resistance to change is a management task that has to be done in such a way that all parties involved are satisfied (Phillips, 1983). Reducing resistance may cut down on the time needed for change to be accepted. This is because expectations for change must be communicated realistically to workers to help the transition. When change is not well managed one may notice some of the following behavioral indicators of change-resistant (Phillips, 1983). Workers will start struggling to identify and learn appropriate corporate behavior. They will be seen to be linking more with the informal communication network and displaying negative reaction to any change initiative (Kotter, 2011). Since workers feel that the change has been imposed on them, they will be seen to becoming more vocal, often inappropriately and refraining from networking with colleagues whom they perceive as a threat to their positions. One can also notice workers permitting interpersonal style to overshadow work or job competence and working alone, with a need to avoid ‘making waves’. As indicated earlier, change can be managed in such a way that resistance to it is minimised. The following are ways that managers could employ to make change easier for the people it will affect (Kotter, 2011). Stakeholders should be educated on change and there has to be communication on the anticipated change. Up-front communication and education helps employees see the logic in the change effort. It is only when people know what the change is all about that they can accept it. It is also very important that if one is educating people on the coming change he becomes truthful and tell the people the truth so that they all can have the same expectation of what is to happen. Stake holders should participate and be involved in the change that has to take

place (Whelehan, 1995). When employees are involved in the change effort they are more likely to buy into change rather than resist it. People tend to have a sense of ownership if they are involved in decision making. If stakeholders are invited and given a chance to voice their fears and to put forward the suggestions, they will have a sense of ownership to the change and as a result they will not resist the change. There has to be assistance and support to the people who are going to be affected by change. Management has to support the employees to deal with fear and anxiety during a transition period. Fears of how much is change going to cost them should be said to stakeholders (Dean, 2009). In the case of respondents to this research, most educators were indicating that rationalization is going to have financial impacts on the moneys since they have to use public transport to convey them to the new school. Management can also negotiate and meet an agreement with stakeholders. One other way that managers can use to combat resistance can be by offering incentives to employees to not resist change. Manipulation and co-option as a way of making people aware of change can also be employed. Co-option involves the patronizing gesture in bringing a person into a change management group for the sake of appearances rather than their substantive contribution (Levin, 2012). A harsher way which at times is the only way out is explicit and implicit coercion. Here, managers can explicitly or implicitly force employees into accepting change by making clear that resisting change can lead to losing jobs, firing, transferring or not promoting employees. This type of behaviour often creates bad feelings or hostilities. Some managers use more subtle, covert tactics to implement change. One form of manipulation is co-optation, which involves giving a resisting individual a desirable role in the change effort. The study has shown that if change is not communicated to all stakeholders, chances are that the people will resist it. This study has shown that if communication is done only to the top management that does not mean the people in lower levels will have that understanding. It is there for important that all stake holders should have a common understanding of change.

LIMITATIONS

While the sample of this study was randomly selected the results presented here are in no way meant to be generalised to all schools in the North West province for instance. It is worth pointing out that change management is a vast field of study on its own hence this paper may not be seen as comprehensive in any way. Because of this, the researchers' aim was to illustrate how a complex area such as change was not really communicated to all the necessary stakeholders.

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MANAGEMENT OF SCHOOL PROJECTS BY DEPARTMENT OF BASIC EDUCATION IN THE NORTH WEST PROVINCE: VIEWS OF SCHOOL STAKE HOLDERS ON THE SUBJECT

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ABSTRACT

In this paper we describe the views of school stake holders on their take on school projects managed by the department of basic education. In South Africa legislation was introduced where school governing bodies (SGB) could decide on who was eligible to provide resources and services to the school, as well as deal with funding and budgeting matters. As being responsible for the finances of the school, the SGB also wields power on issues of school projects. Participants were 65 stake holders with ages ranging between 21 years and 55 years ($M = 35.4$; $SD = 9.6$) from a rural area in the North West province. The results revealed that participants were not happy about the situation where the department of basic education hires people and do not afford schools, especially the SGB any say in projects that are managed by the department. It is recommended that government should look at what governing body members do not know and offer training. Limitations of the study are also advanced.

Keywords: Stake holders, project, project management, school project, school governing body

INTRODUCTION

When one talks about Project management most people relate it to activities that could be undertaken in a number of fields such as engineering, information technology, business, industrial processes and education. Different authors define project management in different ways. For instance Kerzner (2009) points out that project management "... is the planning, organising, directing, and controlling of company resources for a relatively short-term objective that has been established to specific goals and objectives" (p. 4). On the other hand Walker (2007) has argued that "[T]he objectives of the project management process are those of the client, and a role of project management is to ensure that the project organisation works to achieve the client's objective" (p. 6). What seems to arise strongly from these definitions is the fact that (a) project management incorporates an objective that needs to be accomplished; (b) after a project is identified and clearly defined then there is a need to plan; and (c) all factors that play a role in the project need to be constantly monitored. In this study, stake holders refer to local parents including members of the SGB, educators and principals. It is also important to note that, SGB and parents will be used interchangeably since when we mention SGB we will in fact be referring to parents.

THEORETICAL FRAMEWORK

Researchers such as Atkinson (1999) have identified criteria against which projects can be measured. A number of factors are attributed to the possible success or failure of projects in project management. For instance, in the engineering environment six of the most important reasons for failure are identified as, (1) Lack of user involvement; (2) Long or unrealistic time scales; (3) Poor or no requirements; (4) Scope creep; (5) No change control system, and (6) Poor testing (Coley Consulting, n.d.). About lack of user involvement it is suggested that

if nobody feels committed to a project then chances are high that it will fail. What is important therefore is for management to continuously support the project and ensure that staff makes it a priority until it is successfully completed. Regarding long or unrealistic time scales, when project plans are not evaluated this may result in these being completed late. What is important therefore is to explore the volume of work needed and see to it that the time set for completion is realistic. About poor or no requirements, it is important that those who commission a project should clearly spell out what they want. Meaning that they have to give out detailed information on what they want e.g. If there is a need for a school to be built as a project, number of classes, laboratories, staff rooms and everything that has to do with the project should be detailed. Failure to give specific instructions may lead to a final product that is not the initial envisaged project. A problem with scope creep results when a decision is made about a project and as it builds, managers keep on adding other requirements. Here the main issue is that scope creep delays progress and completion times (Bryde, 2003). An example here is when say a house is to be built with all the specification and plan in place. Then the owner decides to change the size and dimensions of some rooms. This means that architects have to change the plan and it must be submitted once again to the municipality for approval. As a result everything stalls, more money is spent and time is wasted because of scope creep.

About no change control system, it is argued that despite "... everything in businesses change, and change is happening at a faster rate ... So it is not realistic to expect no change in requirements while a system is being built" (Coley Consulting, n.d.). What is critical here therefore is that the effects of any change requirements on the timescale, cost and risk of a project must be properly evaluated. Poor testing is about the inability of those who commission projects to verify whether what they commissioned is delivered (Karlsen, 2002). For instance, government may commission the building of houses then officials never inspect the houses before they are occupied and the new occupants complain about all sorts of defects in the houses. It is argued that "... acceptance testing often fails to catch many faults before a system goes live because of (ibid. 132): Poor requirements which cannot be tested, poorly, or non-planned tests meaning that the system is not methodically checked, inadequately trained users who do not know what the purpose of testing is and inadequate time to perform tests as the project is late." The main difference between general management and project management relates to the definition of a project and what the project intends to deliver to the client and stakeholders (Burke, 2004).

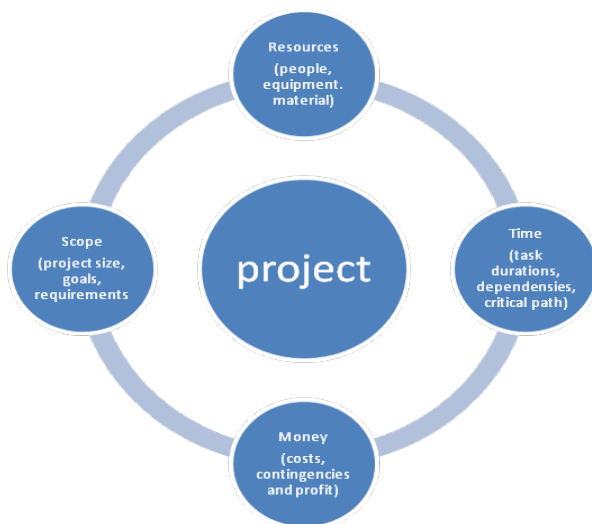


Figure 1 Four basic elements of a project

It is maintained that for a project to be successful the Project Manager has to simultaneously manage the four basic elements of a project: resources, time, money, and most importantly, scope. All these elements have to be seen as interrelated. The project manager has to manage each of these elements effectively. All must be managed together if the project, and the project manager, is to be a success. Most literature on project management expresses the need to manage and balance three elements: people, time and money. However, the fourth element which is scope is the most important and it is the first and last task for a successful project manager. The project scope is the definition of what the project is supposed to accomplish and the budget (of

time and money) that has been created to achieve these objectives. It is absolutely imperative that any change to the scope of the project have a matching change in budget, either time or resources. If the project scope is to build school toilets or classroom with a budget of R100, 000 the project manager is expected to do that. However, if the scope is changed to a building for four widgets, the project manager must obtain an appropriate change in budgeted resources. If the budget is not adjusted, the shrewd project manager will evade the change in scope. The common practice is that scope changes occur in the form of "scope creep". Scope creep is the piling up of small changes that by themselves are manageable, but in aggregate are significant

SOUTH AFRICAN CONTEXT AND BASIS OF THE STUDY

In South Africa legislation allows projects to be run within the school context. In fact, the *South African Schools Act 84 of 1996* (the Act) introduced governing bodies within schools and granted them the responsibility to oversee certain activities (Department of Education, 1996). In South Africa SGB members are expected to also be project managers. The problem however is that in most instances the school governing body members are not necessarily trained in project management. The activities among others included making executive decisions, deciding on who was eligible to provide resources and services to the school, as well as dealing with funding and budgeting matters (Gann, 1998). The main objective of the Act was to promote representative participation in schools, by establishing governance structures meant to contribute to the democratisation of the country (Grant Lewis, & Naidoo, 2004). In order to promote the representative participation, the Act dictated that parents should form the majority of the governing body where one would take the chairmanship position in meetings while the principal would be an *ex officio* member (Department of Basic Education, 2011). This Act effectively also allows school governing bodies to be responsible for their schools' projects. For instance, because of its historical past, South Africa has a majority of adults who are not educated. Researchers (e.g., Mncube, 2007, p. 129) have identified some of the problems parents may have as "... the lack of clear demarcation between the roles of the teaching staff and those of the school governing body (SGB), lack of time, lack of confidence from some parents, ... lack of training which results in lack of knowledge of the Act and roles and responsibilities ...". One important aspect in running a school project is making sure that it is completed successfully. Successful completion is a prerequisite in many ways because if a project fails that may impact negatively on the finances of the school. In a related manner it is argued that the process of managing a project "... revolves around good planning, organising, directing, and controlling resources for a relatively short-term objective" (Kerzner 2009: 4). Also, if projects are to be successful it is important that they are undertaken by good teams led by competent leaders. This being the status, there are some instances where the projects are not managed by schools (SGB). This in the case where projects are seen to be big. What actually happened is that big projects like the building of school toilets, additional classrooms, libraries, tennis courts etc. are managed by the department of basic education utilising the outsourced people from the Department of Works or after using the services of tenders whereby the one who won the tender builds the said structure. These, some stake holders views as a sign of no confidence by the department of basic education in local people and the SGB in particular. The expectation of people in rural areas is that buildings and all other work in schools should be done by local people since this will help in job creation. In cases where these kinds of jobs are outsourced, and few local people get some sub-contracts, local people feel they should be the ones given these contracts and they are the ones to manage these projects.

The theoretical basis in this study was derived from the context of Wideman's (1999) fundamental principles of project management (see Table 1).

Table 1 Fundamental principles of project management*

Principle	Explanation
1. Success	The goal is to produce a successful product. Without achieving a successful product there is no merit in incurring the project management overhead cost
2. Commitment	A mutually acceptable commitment between a project sponsor and a project team must exist before a viable project exists. ... A project team is a knowledgeable and qualified group able and willing to undertake the work of the project
3. Tetrad-Tradeoff	The core variables of the project management process, namely: product scope, quality grade, time-to-produce and cost-to-complete must all be mutually consistent

4. Primary Communication Channel	A single channel of communication must exist between the project sponsor and the project team leader all decisions affecting the product of the project
5. Cultural Environment (or Suitability)	An informed management is one which understands the project management process. A supportive cultural environment is one in which the project is clearly backed by management, and project team members are enabled to produce their best work without unnecessary bureaucratic hindrance
6. Process	Effective and efficient policies and procedures must be in place for the conduct of the project commitment. Such ... must cover, at a minimum, clear roles and responsibilities, delegation of authority, and processes for managing the scope of work, including changes, maintenance of quality, and schedule and cost control
7. Life-Cycle	A successful project management process relies on two activities – planning first, and then doing. ... The project life-cycle, characterized by a series of ‘milestones’ determines when the project starts, ... and when the project is finished

* Adapted from Wideman (1999)

As has already been indicated here, school governing body members are by law expected to be in charge of projects within schools in South Africa. However, we have not seen a study that has investigated whether school governing body members and parents in rural areas of the North West province are actually ready to manage big projects in schools. The aim of this study therefore was to determine the views of stake holders on projects managed and run by people representing the Department of basic Education in rural schools of the North West province. The significance of this study lies in the fact that knowing what the current situation is about the awarding of tenders and management of school projects by those assigned by the Department of Basic Education will enable the researcher to provide guidelines on what should be done to assist stakeholders who want to perform duties relating to running projects at school. This study therefore is significant in two ways, (1) it will provide guidelines on project management issues that should be useful to all stakeholders in this study; and (2) it will advise the department of basic education on how it should address identified problems emanating from conflicts arising from projects being run and managed by people representing the department.

METHOD

Participants

The targeted population comprised of parents including SGB members, teachers and school principals from one region of the North West province. The region is rural and has about 128 schools including primary, middle and high schools. This means that there were 128 principals, about 1 500 teachers and approximately a very large number of both parents and SGB members. This study made use of parents and a number of SGB members still serving schools. So, as long as a person was a parent and/or had been an SGB member they were then considered as eligible for the purpose of this study. To select participants, simple random sampling was used. The first aim was to select a sample of approximately 10% of the schools in the population. The 10% was seen to be an ideal number considering that the population of 128 schools would in essence have meant that there were 2 378 eligible participants. That number of participants would be difficult to reach. In selecting the 10% of the schools a table of random numbers was used and 13 schools were finally included in the study. Specifically, each school was given a number ranging from 1 to 128. The numbers were then defined in the Research randomizer (2011) which generated different sets, and set 15 was selected. In selecting the 13 schools, this meant that automatically the 13 principals were selected. In selecting teachers from each school, the researcher assigned numbers from 1 to n (where n was the number of teachers in a particular school) and the Research randomizer (2011) was used to select one. One SGB member representing each school was selected. Then two parents who have children in each any of that school were selected. This means that the sample was made up of 65 participants, comprising 13 principals as well as 13 teachers and 39 parents. Participation by all individuals was voluntary because the purpose of the study was clearly explained to all possible participants.

Instrument and procedure

This study is conducted within both the qualitative and quantitative paradigms. One of the major distinguishing characteristics of qualitative research is that the researcher attempts to understand people in terms of their own definition of their world (Gay & Airasian, 2000, p. 29). Qualitative research is multi-method in focus, involving an interpretive and naturalist approach to its subject matter. This means that qualitative research studies things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them (Denzin & Lincoln, 1994, p. 2). Quantitative methodology on the other hand, is reported to be about the assignment of numbers to objects, events, observation according to some rules (Rossman & El-Khawas, 1987, p. 106). Patton (1990) adds that quantitative methods require the use of standard measures so that the varying perspectives and experience of people can be fitted into limited predetermined response categories to which numbers are assigned. It is therefore possible to measure the reaction of a greater number of people by way of a limited set of questions, facilitating comparisons and statistical aggregation and analysis of the data (De Vos, 1998). Quantitative studies in essence allow a researcher to analyse numbers in order to reach conclusions about selected samples. In fact, it has been pointed out that quantitative research is about collecting numerical data which is analysed using statistics (Creswell, 1994). The qualitative paradigm was fulfilled by conducting interviews with different stakeholders on their views on projects managed by the department of basic education at schools. In the quantitative paradigm on the other hand, participants were given a questionnaire. The questionnaire requested them to respond to two sets of information. The first set of information was about their biographical data in terms of age, and gender for example. The second set was about their understanding of issues relating to project management within their schools. For example, participants were given definitions on project management related functions. It is averred that the goal "...of mixed methods research is not to replace either of these approaches but rather to draw from the strengths and minimize the weaknesses of both in single research studies ..." (Johnson, & Onwuegbuzie, 2004, pp. 14 - 15). In a similar vein, it has been pointed out that when the two methods are used in combination, the weakness of one could be balanced by the strength of the other (Breakwell & Millard, 1995). The aim of utilising both qualitative and quantitative methods here was to use these as some form of triangulating findings. This means that one method was used in some aspects of the study to verify and corroborate participants' assertions and views in the other method.

RESULTS

Biographical data

Participants were 65 teachers, principals and school governing body members. Table 2 shows the biographical data that the participants were requested to provide. It may be observed from the table that the majority of participants were men. Participants' ages ranged between 21 years and 55 years ($M = 35.4$; $SD = 9.6$). The table further reveals that the majority (58.46%) of the participants had a matric or less.

Table 2 Biographical information of the participants (N = 65)

Category		N	%
<i>Gender</i>			
	Women	31	47.7
	Men	34	52.3
<i>Age</i>			
	20 – 29	27	41.5
	30 – 39	13	20.0
	40 +	25	38.5
<i>Highest academic qualification</i>			
	Grade 12	38	58.46
	Diploma (e.g. Diploma in primary education)	17	26.15
	Degree or higher(e.g. B.A. or B.A. Honours)	10	15.39
<i>Position held in school</i>			
	Educator	13	20.0
	Principal	13	20.0
	Parent	39	60.0

Deliberations on school projects managed by departmental agents

Respondents were requested to indicate if they were happy about local school projects being managed by the department of education and its agents in the form of those who won the tenders to do the projects. Participants indicated that they were totally opposed to what the department was doing. Respondents indicate that educators and principals are more knowledgeable about project management. It is however interesting to note that 74.3 % of parents are of the view that they do not have skills and knowledge in project management. In responding to the question on are they happy about projects in schools, it is interesting to note that 100% of both educators and principals are happy about school projects while 84.7% of parents are not happy.

Table 3 Frequency distribution and percentages in terms of Views on projects managed by department of basic education agents

Views on projects managed by department of basic education agents	Yes/No	N (%)		
		Educator	Principal	Parents
1. Do you have skills and knowledge in project management	Yes	3 (23.1)	9 (69.3)	10 (25.7)
	No	10 (76.9)	4 (30.7)	29 (74.3)
2. Are you happy about projects in schools	Yes	13 (100)	13 (100)	6 (15.3)
	No	0 (0.0)	0 (0.0)	33 (84.7)
3. Should the department outsource projects	Yes	8 (61.5)	13 (100)	8 (20.5)
	No	5 (38.5)	0 (0.0)	31 (79.5)
4. Are you confident that local people can handle projects of higher magnitude	Yes	3 (23.1)	3 (20.0)	37 (94.9)
	No	10 (76.9)	10 (76.9)	2 (5.1)
5. Do you think that local people have necessary skills to do projects?	Yes	9 (69.2)	9 (69.2)	38 (97.4)
	No	4 (30.7)	4 (30.7)	1 (2.6)
6. Are projects managed by departmental agents yielding expected results?	Yes	13 (100)	13 (100)	38 (97.4)
	No	0 (0.0)	0 (0.0)	1 (2.6)
7. Do you know what feasibility study mean?	Yes	10 (76.9)	11 (84.6)	1 (2.6)
	No	3 (23.1)	2 (15.4)	38 (97.4)
8. Do you know what Stakeholder analysis mean?	Yes	13 (100)	13 (100)	2 (5.2)
	No	0 (0.0)	0 (0.0)	37 (94.8)
9. Projects managed by local people will help local people to be skilled	Yes	13 (100)	13 (100)	39 (100)
	No	0 (0.0)	0 (0.0)	0 (0.0)
10. The quality of the final product managed by locals will be high?	Yes	4 (30.7)	3 (23.1)	36 (92.3)
	No	9 (69.3)	10 (76.9)	3 (7.7)

About the department's outsourcing of projects, 100% of principals are happy about that and 61.5% of educators are also happy. What is of concern is that 79.5% of parents are opposed to the projects being outsourced. The above results paint a picture that calls for concern. 76.9% from both educators and principals are of the opinion that local people will not be in a position to manage projects of high magnitude. On the other hand 94.9% of parents are confident that local people have necessary skills to handle projects of higher magnitude.

DISCUSSION

The results presented here have shown that the participants were relatively mature individuals most of whom (58.5%) were 30 years or older. They were fairly uneducated with 58.46% in possession of a matric or lower qualification. It was reported here that stakeholders did not approve that the department of basic education should manage projects in their local schools. These sentiments were made clear when interviews were utilised to collect data. On the question of having skills and knowledge of project management, respondents indicated that they were skilled in building. Most indicated that the skill of building, installing electricity and other building-related skills they had. They indicated that unfortunately due to their rural back ground, they did not have qualification but emphasised that the skills they did have. Some respondents indicated that it was better if projects were managed by school principals. Respondent 12 indicated that “...*principals are aware of our capabilities and our weaknesses...they understand and trust us...if they manage, they will give us jobs so that we can pay for our children`s education*”. Principals have always been preferred for the management of schools project (Molepo & Mji, 2013). They indicated that the term project management was too big for them since they were not educated but insisted that given the necessary materials, they will be able to erect buildings. Excerpts from the interviews illustrate this. Respondent 13 indicated that most of the houses built locally were built by him. He was supported by respondent 4 who stated that “...*my husband build this village...ask everybody you come across and four in every five will say their house was built by my husband*”. This kind of responses made the researchers to want to know why locals were so eager to do the projects in schools. An important contribution that served as an eye opener was made by respondent 20 who indicated that during their community meetings, they were encouraged to vote a certain party that promised them job opportunities in their village. They maintained that they were told that after voting that party, tutors will be brought in to engage them and train them on how to manage and do projects. Respondent 15 indicated that “...*our political leaders are aware that we don't have the necessary skills...what angers me most is the fact that our jobs are given to foreigners who can hardly give us sub-contracts*”. This study has been an eye-opener in that it has shown that most people in rural areas are skilled for manual labour and run short of qualifications. This study has been a real eye-opener for us in that things we took for granted, for example, knowledge of project management terms and the project management functions were not known to stakeholders as we had expected. This study has shown us that a lot of education on the side of stakeholders is needed. The department of education has a big challenge in providing people with skills in project management functions. The outcome from the interviews indicated that local parents were eager to learn project management and they were disappointed since the political parties made promises that they did not fulfil. Locals were actually unhappy with the department sending people to do work in their villages. Parents felt that they were competent to do the work and there was just a need that the local municipality organise workshops that will give locals skills on how to manage projects. On the question; who should do projects in the village? Here the interviewees saw the residents as an ideal people to do school projects on two accounts. In the first argument the interviewees indicated residents by virtue of their village were too far from towns and as such they should be given first priority when local school projects were available. The second argument endorsing residents as school project managers was based on the fact that they were the having building skills and other skills relevant to projects at school. It was during interviews that I got closer to the respondents. It became very clear to me that most of the stakeholders, especially the parents were not in touch with project management functions. The language used in project management was seen to be very foreign to them. It is worth pointing out that participants in this study were individuals who had adequate work experience in their different careers. Based on this, the researchers speculated that they would be *au fait* with project management functions (Molepo & Mji, 2012). The assessment in a nutshell revealed that some functions were understood by participants while others were not.

LIMITATIONS

While the sample of this study was randomly selected the results presented here are in no way meant to be generalised to all schools in the rural villages in North West province for instance. It is worth pointing out that project management is a vast field of study on its own hence this paper may not be seen as comprehensive in any way. Because of this, the researchers' aim to get views of school stake holders on the projects run by department of basic education in the North West province schools was achieved.

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THE INFLUENCE OF ONLINE STORE ATMOSPHERICS ON UTILITARIAN AND HEDONIC SHOPPERS: A FOCUS ON VISUAL STIMULI

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ABSTRACT

The paper examines the influence of visual stimuli on utilitarian and hedonic customers' attitude towards online store websites. Data used in the analysis was collected from 184 online shoppers from Gauteng, South Africa. 73 of the respondents were utilitarian while 111 were hedonic shopping oriented. The findings show that both utilitarian and hedonic customers' attitude towards online stores websites is influenced by visual stimuli functionality and visual stimuli appeal. They also show that the level of influence of visual stimuli differs depending on customers shopping orientation. With the website being the main point of interface between online retailers and their customers, the findings have wide managerial implications on effective design of websites for enhanced shopper gratification and these have been outlined in the paper.

Keywords: Online store website, visual stimuli functionality, visual stimuli appeal, attitude towards website

INTRODUCTION

The many advantages associated with online retailing including the fact that it is considered a very cost efficient and cost effective marketing channel, have resulted in a lot of retailers opening up online stores. Evidently this has resulted in the online market being characterised by growing stiff competition. Wang et al., (2011) pointed out that as the online retail industry continues to witness growing competition, the study of how to attract and retain customers has become critically important. Research shows that one of the major contributing factors to customers being attracted to an online store and reporting good shopping experience is to do with online store atmospherics (Wu et al., 2013). Dailey (2004) defined web atmospherics as the 'the conscious designing of web environments to create positive effects in users in order to increase favourable consumer responses' p. 796. Yoo and Kim (2014) noted that factors relating to online atmospherics such as colours, graphics, readability of texts and layout convey important impressions about online stores which ultimately influence how they respond to stores. Im et al., (2010) observed that while advancements in technology allows for use of audio stimuli, designers heavily rely on use of visual stimuli to appeal to customers. They noted that the reason for this is because visual experience is the primary sensory experience on the web, more so in the context of online shopping.

A review of literature on online store atmospherics shows that while some studies have looked at the influence that different atmospheric elements have on online shoppers in general, not many have, in their investigations, taken into consideration the fact that online shoppers are not a homogenous group of people. Tractinsky (2004) specifically point out that different personalities account for different ways in which people interact and respond to online information. Incorporating personality differences can thus be helpful in providing a better understanding of the influence of online store atmospherics on customers. Such an understanding is key to an online retailer's ability to design stores that produce desired positive effects on its varied customers. Focusing on customers with different shopping orientations i.e. hedonic versus utilitarian oriented shoppers, this study aims at contributing to this understanding by specifically examining the level of influence of online visual

stimuli on utilitarian and hedonic customers. In looking at visual stimuli, the study takes a bi-dimensional perspective. The two dimensions examined are visual stimuli functionality and visual stimuli appeal. The study's specific objectives are to (a) investigate the influence of visual stimuli functionality and visual stimuli appeal on hedonic customers attitude towards online store websites (b) investigate the influence of visual stimuli functionality and visual stimuli appeal on utilitarian customers attitude towards online store websites (c) to examine differences in level of influence that visual stimuli functionality and visual stimuli appeal has on utilitarian customers attitude towards online store websites and (d) to examine differences in level of influence that visual stimuli functionality and visual stimuli appeal has on hedonic customers attitude towards online store websites.

The paper has been structured such that the next section reviews literature relating to constructs of interest in the study and the underlying theory used to explain the influence of visual stimuli on customers. This is followed by the methodology and presentation of findings. Thereafter the findings are discussed, their implications outlined before concluding and providing suggestions for future research.

LITERATURE REVIEW

The underlying theory used in this study to understand the influence of visual stimuli on utilitarian and hedonic online shoppers is the Uses and Gratification Theory. This theory which has its origins in media studies focuses on understanding why people choose specific media sources and the type of gratification that they derive (Ruggiero, 2000). The theory states that individuals' media consumption behaviour is driven by social and psychological needs. According to Katz et al. (1974) the Uses and Gratification Theory is based on the basic premise that audience members are not a homogenous group of people. Although the Uses and Gratification Theory was originally designed to help understand people's use of traditional media, the framework has proven useful to understanding people's engagement with content across varied modern platforms including online content.

A review of literature on studies using the Uses and Gratification theory shows that it can be used to understand varied facets of media and content consumption including specifics on gratifications that people seek; social and psychological factors driving consumption behaviour as well as effects of gratification. According to Eastin et al., (2014) the emphasis of research on gratification and media consumption is on the fact that people have choices regarding type and content of media to go for. In the case of websites, this means that individuals can choose the website to engage with among the many available. Research focusing on social and psychological factors emphasises on the need to explore background reasons why some people may want to engage with specific type of content. In this study the focus is on customers' shopping orientation. Research shows that customers differ in their shopping orientation. In terms of effects, researchers have looked at varied outcomes of engaging with different media types and content. Some of the outcomes include attitudes toward the media type or content as well as intentions to continue making use of particular media platforms (Ha et al., 2015). The outcome of interest in this study is attitude towards online shopping website. The interest in the study is the examination of the influence of visual content on online shoppers' attitudes.

When it comes to shopping orientation, most studies categorise customers into two main groups based on their shopping orientation. These are the utilitarian oriented shopper and the hedonic oriented shopper (Babin et al. 1994). Hedonic oriented shoppers are known to be recreational shoppers, enjoying shopping for its own sake and not necessarily because of the final outcome of the buying process namely actual purchase of product (Reimers and Chao, 2014). Quality of shopping experience is of great importance to such shoppers and a major source of gratification rather than the mere fact that one is able to purchase products. Karande and Merchant (2012) noted that shopping motives associated with hedonic shoppers include adventure, socialising, and pleasure. According to Arnold and Reynolds (2003) adventure shopping is grounded in stimulation and expressive theories noting that adventure shoppers look out for stimulation and the feeling of being in 'another world' while shopping. This feeling is known to make customers easily lose track of time while shopping. Kim et al., (2014) pointed out that hedonic shoppers often view stores as a place to get entertained. Utilitarian shoppers on the other hand are known to be more task oriented placing more value on ability to complete the purchase process without taking too much time (Scarpi et al., 2014). Such shoppers are known to derive little gratification from the shopping activity itself.

While it may not be uncommon for the same customer to be at times driven by utilitarian and other times hedonic shopping motives depending on some contextual factors such as time availability, claims that people exhibit personalities that are mainly associated with one type of shopping orientation and not the other cannot be disputed. Guiry et al. (2006) specifically noted that it is possible to group people into a distinct shopping orientation group based on how one defines oneself. In their study which looked at the concept of recreational shopper, they noted that one's shopping orientation is a dimension of their 'self-concept'. Scarpi et al., (2014) found that this self-concept manifests itself not only when one shops at physical shops but also in online shopping. Just like with physical retailing, it can be argued that gratification on the part of online hedonic as well as utilitarian shoppers depends on the ability to provide a retail environment that resonates with shopping motives. Central to the ability of any online retailer to provide such a shopping environment is how they go about designing their stores (Bridges and Florsheim, 2008). Of special focus in this study is design of visual stimuli.

Many studies note the important role that retailing environments, also known as the retail service-scape plays in influencing customers' perceptions and impressions. Lin, (2004) observed that service-scapes are an important source of evidence in service evaluation. He noted that the importance of service-scapes is of particularly high significance in cases where there are high levels of intangibility. The fact that online shopping does not give customers the opportunity to physically interact with the store environment and the goods on sale leaves customers with not many options but to rely mostly on visual stimuli in evaluating a store and its offering (Ha and Stoel, 2012). Furthermore, in the online shopping environment customers interact with the online website more than they interact with a store's online retail agent where such is made available. In considering visual stimuli this study conceptualised it as a bi-dimensional construct. This is because visual merchandising encompasses both functional and expressive or appeal aspects on store design. At the core of functional aspects are issues of objective properties of a website that facilitate the purchasing process (Boon, 2014; Thorlacius, 2007). Included in this are aspects of layout or organisation of content as well as presentation of information.

The expressive or appeal aspects relate to non-functional subjective design elements including issues of website perceived ambience or impressiveness. Boon, (2014) argued that functional aspects of web-design relate to utilitarian qualities while expressive aspects relate to hedonic qualities. Bearing this in mind this study aims to test the extent to which two aspects of visual stimuli, namely 'visual stimuli – functionality' and 'visual stimuli – appeal' influence customers' attitude towards online stores. Yoo and Kim (2014) found that visual stimuli in general has significant influence on customers' response to web sites. In this study it postulated that utilitarian as well as hedonic online customers will be positively influenced by both visual stimuli – functionality and visual stimuli – appeal. This is in line with Gestalt psychology which as noted by Lin (2004) emphasises on the role of the overall sum of components and the influence as well as relationship of components in producing perceptions. The argument advanced in this paper is that both the functionality as well as appeal of visual stimuli work together to influence customers' perceptions of the online retail service-scape. At the same time, this paper argues that the extent to which the two dimensions influence customer perceptions is likely to differ depending on a customer's shopping orientation. In this regard it is hypothesised that while both visual stimuli - functionality and visual stimuli – appeal may have positive influence on customers' attitude towards an online store website, visual stimuli – functionality will have stronger effect on attitude of utilitarian shoppers while visual stimuli – appeal will have stronger influence on attitude of hedonic shopper. The specific hypotheses tested in this study are that:

H1: Perceived visual stimuli functionality has positive influence on utilitarian oriented online shoppers' attitude towards an online web-site.

H2: Perceived visual stimuli appeal has positive influence on utilitarian oriented online shoppers' attitude towards online store website.

H3: Utilitarian oriented online customers' attitude towards online store sites is influenced more by perceived visual stimuli functionality than by perceived visual stimuli appeal.

H4: Perceived visual stimuli functionality has positive influence on hedonic oriented online shoppers' attitude towards an online web-site.

H5: Perceived visual stimuli appeal has positive influence on hedonic oriented online shoppers' attitude towards online store website.

H6: Hedonic oriented online customers' attitude towards online store sites is influenced more by perceived visual stimuli functionality than by perceived visual stimuli appeal.

METHODOLOGY

Data used in this analysis was collected as part of a large study on online shopping. The study followed a descriptive quantitative research design. The target population for the study was online shoppers from Gauteng South Africa. As there was no list of online shoppers available from which to draw a random sample, non-probability sampling in the form of quota sampling was used to select individual respondents. Quota sampling was chosen because of the need to ensure that both male and female respondents are well represented in the sample.

A self-filling structured questionnaire was used to collect the required data. All items used to measure constructs of interest were adapted from literature and respondents were asked to keep one online store where they had bought from in mind when responding to the questions. Items used to measure visual stimuli functionality and visual stimuli appeal were adapted from Wang et al. (2011) and Demangeot and Broderick (2007). Items used to measure attitude towards online store website were adapted from Nusair and Parsa (2011) as well as Chen and Wells (1999). Data collected from a total of 73 utilitarian and 111 hedonic oriented shoppers was used in the analysis. Customers were identified as belonging into utilitarian and hedonic oriented shoppers groups using a scales adapted from Arnold and Reynolds (2003) as well as Babin and Attaway (2000).

Version 21 of Statistical Package for Social Science was used to analyse the data. The analysis involved testing of the scales for reliability before being used in the main analysis. Cronbach alpha coefficients were used to assess reliability of the constructs. The results of the reliability tests showed that all constructs had alpha coefficients of greater than 0.7. According to Hair et al (2010) Cronbach alpha coefficients of .7 and above indicate high levels of validity. Correlation analysis and regression analysis were the techniques used to test the proposed hypotheses in the study. A 95% confidence interval was used in deciding on whether to accept or reject a hypothesis.

RESULTS AND DISCUSSION

Table 1: Descriptive statistics – Visual Stimuli and Attitude

Construct	Mean	Standard Deviation
Utilitarian oriented online shoppers		
Visual stimuli functionality	4.12	.639
Visual stimuli appeal	4.08	.746
Attitude towards online store website	4.30	.637
Hedonic oriented online shoppers		
Visual stimuli functionality	4.32	.648
Visual stimuli appeal	4.26	.729
Attitude towards online store website	4.26	.654

Table 1 presents means and standard deviations relating to visual stimuli and attitude towards online store website. The findings show that both utilitarian and hedonic customers had positive perceptions about visual stimuli functionality and visual stimuli appeal of online shops under consideration. They also had positive attitude towards the websites of the online stores where they had bought from. The results among utilitarian customers show mean value of 4.12 for visual stimuli functionality, 4.08 for visual appeal and 4.30 for attitude towards online store website. The results for hedonic oriented online shoppers show higher mean values for both visual functionality (mean = 4.32) and visual stimuli appeal (mean = 4.26) when compared to mean values of

utilitarian shoppers respectively. The mean value for hedonic online customers attitude towards online store website was however lower (mean value =4.26) than that of utilitarian shoppers.

Presented in table 2 are results of the regression analysis conducted to examine the influence of visual stimuli functionality and visual stimuli appeal on utilitarian online customers' attitude towards online stores. The results show that visual stimuli functionality had significant positive influence on attitude towards online store websites ($p = .000$; $\beta = .693$). Based on these results hypotheses 1 is accepted. Findings on the influence of visual stimuli appeal also show that it has positive influence on utilitarian online shoppers' attitude towards online store websites ($p = .000$; $\beta = .519$). Based on these results hypotheses 2 is accepted. An examination of the regression coefficients show that the influence of visual stimuli functionality ($\beta = .693$) on utilitarian online shoppers attitude towards online was higher than that of visual stimuli appeal ($\beta = .519$). Hypothesis 3 is therefore accepted.

Table 2: Regression Analysis

Model	R	R Square	Adjusted R Square	Std Error of the estimate		
1	.693	.480	.473	.463		
2	.519	.269	.259	.549		
Model	Independent variable	Unstandardised coefficients		Standardised coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	1.452	.356		4.084	.000
	Visual stimuli functionality	.691	.085	.693	8.095	.000
2	(Constant)	2.491	.359		6.940	.000
	Visual stimuli appeal	.443	.087	.519	5.112	.000

Dependent variable: Attitude towards online store website

Table 3: Regression Analysis

Model	R	R Square	Adjusted R Square	Std Error of the estimate		
1	.631	.399	.393	.510		
2	.682	.465	.460	.481		
Model	Independent variable	Unstandardised coefficients		Standardised coefficients	t	Sig.
		B	Standard Error	Beta		
1	(Constant)	1.501	.328		4.580	.000
	Visual stimuli functionality	.637	.075	.631	8.499	.000
2	(Constant)	1.648	.272		6.067	.000
	Visual stimuli appeal	.612	.063	.682	9.741	.000

Dependent variable: Attitude towards online store website

Presented in table 3 are results of the regression analysis conducted to examine the influence of visual stimuli functionality and visual stimuli appeal on hedonic online customers' attitude towards online stores. The results show that attitude towards online store website is significantly influenced by visual stimuli functionality ($p = .000$; $\beta = .631$). Hypothesis 4 is thus accepted. The results also show that hedonic customers' attitude towards online store websites is positively influenced by visual stimuli appeal ($p = .000$; $\beta = .682$). Hypotheses 5 is thus also accepted. The regression coefficients in table 3 show that the level of influence of visual appeal on hedonic online shoppers attitude was higher ($\beta = .682$) than that of visual stimuli functionality ($\beta = .631$). Hypothesis 6 which states that hedonic oriented online customers' attitude towards online store sites is influenced more by perceived visual stimuli appeal than by perceived visual stimuli functionality is hereby accepted.

DISCUSSION AND MANAGERIAL IMPLICATIONS

The findings in this study provide insight into the influence of visual stimuli on customers of different shopping orientations. The findings show that both visual stimuli functionality and visual stimuli appeal have positive influence on both utilitarian and hedonic oriented online shoppers' attitude towards online store websites. The findings are consistent with arguments by Gestalt psychologists that perceptual organisation is best understood by looking at overall structure and the components making up the overall structure (Lin, 2004). The findings are also in line with the uses and gratification theory. Singh and Dalal (1999) observed that a website can be compared to an advertisement in that it helps ensure that customers are informed and at the same time it is supposed to help a company appeal to customer emotions. It is in every online store manager's interest to ensure that their store is designed so as to provide optimal functional service as well as appeal to customers.

Efforts aimed at ensuring that the online store websites are functionally sound and appealing need to take cognisance of the fact that online customers are not a homogenous group and that the differences between them may help explain their response to online stores design efforts more so as they relate to visual stimuli. Focusing on customer shopping orientation, the findings in this study point to the fact that hedonic customers' attitude towards online store is more influenced by visual stimuli appeal than by functionality. On the other hand, utilitarian customers are influenced more by visual stimuli functionality than by visual stimuli appeal. For managers of online stores it is in their interest to ensure that customers have a positive attitude towards their online stores website. Researchers in online retailing including Mpinganjira (2015) as well as Yoo and Kim (2014) note the important role that websites play in formation of impressions about a company as well as its services. In looking at functionality, managers need to keep in mind the fact that an online store's website is there to help facilitate the purchase process.

The way in which visual stimuli is designed can have a positive or negative impact on ability of customers to efficiently process information provided online. In trying to enhance functionality managers need to ensure that their online stores' websites visual stimuli are designed so as to enable customers to quickly and efficiently obtain information without being delayed by factors that may compromise on this. Such factors include difficulties associated with readability and memorability of text. Paying attention to how information is organised, size of font used as well as amount of information presented can assist managers in enhancing functionality of visual stimuli. In terms of organisation, it is important for managers to ensure that their sites are divided into logical sections that take into consideration product lines and depths of lines carried. Researchers also highlight the importance of avoiding clutter in online store design noting that it interferes with information processing fluency (Orth and Wirtz, 2014). Font size is important as it affects the ease with which information can be read.

Apart from functionality, managers need to also pay attention to efforts aimed at giving their websites an appealing 'look and feel'. Thorlacius (2007) noted that just as there is a sender behind each advert, the website communicates a lot about a company. In general managers need to realise that causal handling of visual effects can bring about a negative image about their store. Sloppy and unprofessional looks need to be avoided as much as possible. Enhancement of website appeal calls for managers to especially look into issues of use of harmony of colours and also of graphics. In deciding on matters of appeal, it is imperative on managers to take into consideration the taste of the target market as well as products on offer. For example an online store selling clothing targeted at the youth market would be expected to have a different look and feel to that selling clothing targeted at professionals. An online store selling holiday packages would have a different look and feel to that selling everyday household grocery items such as cleaning and laundry detergents.

In working on ways of enhancing functionality and appeal of visual stimuli, managers of online stores need to take a holistic view. They need to realise that the influence of website functionality may be compromised by aspects of appeal. In the same vein the influence of appeal on attitude may be compromised where there are functionality problems.

CONCLUSION

Central to success in business is the ability of firms to successfully appeal to customers' needs and wants. Customers are however often not a homogenous group of people. This creates challenges for firms as the differences often entail varied needs and wants to satisfy. Using the Uses and Gratification theory as the underlying theory, this study examined the influence of visual stimuli on utilitarian and hedonic customers' attitude towards online websites. From the findings in the study it can be concluded that both utilitarian and hedonic oriented customers attitude towards online store websites are positively influenced by functionality of visual stimuli as well as visual stimuli appeal. It can further be concluded that the extent to which visual stimuli functionality and visual stimuli appeal influences attitude towards online stores depends on customers shopping orientation.

While the findings have significant managerial implications as outlined above, they are not without limitations. One of the limitations relates to the small sample size of respondents in the study. Another limitation relates to limited geographical area covered during the study. Researchers need to take these limitations into consideration in designing future studies.

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IMPACT OF INVENTORY MANAGEMENT POLICIES ON CUSTOMERS' NEEDS IN MANUFACTURING INDUSTRIES' LOGISTICS IN GAUTENG PROVINCE, SOUTH AFRICA

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ABSTRACT

As one of the key activities of logistics management, inventory management has always been a major activity to ensure companies' survival and growth. A study has been undertaken with the specific objective of determining the impact of inventory management policies on customers' needs within the manufacturing industries' logistics located in Gauteng Province. Quantitative analysis has been employed to achieve the above objective. It has been found that the use of inventory management policies within the manufacturing industries' logistics respond to customers' needs: the more efficiently manufacturing industries implement inventory management policies, the better customers' needs are met.

Keywords: Inventory, inventory management policies, customers, customer service

INTRODUCTION

Companies in manufacturing industries treasure inventory - physical or tangible resources in the form of raw materials, work-in-process and finished products - stored and used in order to meet intra-and interfirm business needs. The resource-transforming, revenue-generating and customer-keeping role played by inventory in companies is unquestionable and will continue to be the strategic weapon for world-class manufacturing companies. Emphasising the vital importance of inventory in business, Kruger and Ramphal (2009) state how unreasonable it is for any organisation to operate optimally without carrying some form of inventory. They add that unavailability of goods and services dissatisfies customers (Kruger & Ramphal, 2009).

Wang (2002) studied the relationships between liquidity management, operating performance, and corporate value in Japan and Taiwan and indicates that inventory is a major capital investment affecting cash flow and profitability. Similarly, Gourdin (2006) points out the positive contribution of inventory to corporate profitability. Capkun, Hamer and Weiss (2009) investigated the relationship between inventory and financial performance using United States' public database and listed manufacturing industries from 1980 to 2005. Their findings show a positive correlation between all the various forms of inventory (raw materials, work-in-progress and finished products) and financial performance within and across manufacturing industries. The study also found that in most industries, firms that use inventory performance as operational strategy outperform their rivals that neglect to focus on inventory performance.

Langley, Coyle, Gibson, Novack and Bardi (2009) emphasise that no matter the approach selected, inventory decisions must harmonise issues pertaining to costs with customer service requirements. Wisner and Stanley (2008) argue that since inventory costs make up a large share of most of manufacturing companies' total

costs, effective inventory management is often regarded as a prerequisite for maintaining competitive advantage, reducing costs and improving profitability. However, for manufacturing industries' logistics to provide products that satisfy their customers, adequate inventory management policies are needed.

In academic literature, there are many published papers that deal with inventory management. However, there are limited studies focusing on the relationship between inventory management policies and customers' needs. The objective of this study is to determine the impact of inventory management policies on customers' needs in the manufacturing industries' logistics situated in Gauteng Province (South Africa). The study starts with a literature review on inventory management policies and on customer service. This is followed by research methodology and the research results and, the discussion of the research results, and the conclusion of the study.

LITERATURE REVIEW

Inventory management policies

Longo and Mirabelli (2008) assert that the aim of inventory control policy is to determine when to emit a purchase order and what quantity to order. In business logistics management and operations management literature, there are two main traditionally accepted inventory management policies – periodic review and continual review. These policies are mathematically-based and their efficacy is dependent on how they are applied in companies.

Periodic review systems require that companies review their inventory level at fixed intervals and determine their reorder quantity by calculating the difference between the actual and target inventory levels (Hill, 2005). Ray, Song and Verma (2010) add that variation in order sizes for different sequential periods and the constancy of the review ordering time are the main features of a periodic review technique. Bowersox, Closs and Cooper (2002) point out that, under periodic review, the basic re-order requires adjustment with extended intervals between reviews. Despite the advantages of periodic review technique, longer term protection against stockout and higher stockout probability are the major drawbacks of a periodic review technique (Tagaras & Vlachos, 2001). These authors propose a timely and emergency replenishing-based periodic review system to address this problem.

There are many authors in operations research and supply chain management who have studied and provided insightful information using optimisation models and simulation procedures to solve inventory control problems under periodic review systems. For instance, Federgruen and Zipkin (1986) consider a single item, periodic review inventory systems under capacity constrained finite production and uncertain demand. The study shows that the optimality of a stationary policy for both finite and infinite horizon problems is achieved if the initial stock level is inferior to a single critical number. Another study by Çetinkaya and Parlar (2004) considers a single product, periodic-review stochastic inventory problem with finite independent planning horizons and with concurrent fixed and proportional shortage costs. The study reduces the stochastic dynamic finite horizon inventory problem to a simple computational optimisation problem achieved by the use of a stationary base-stock policy.

While periodic review systems provide better replenishments coordination for a variety of stocks, continuous review systems requiring low inventory levels perform much better for single items (Eynan & Kropp, 2007). These authors add that, “under continuous review system, a fixed quantity is ordered whenever the inventory level drops to the reorder point. Consequently, the interval between consecutive orders varies based on the rate of demand” (Eynan & Kropp, 2007). Arguably, Dutta, Chakraborty and Roy (2007) state that continuous review inventory is a mathematical approach specifically designed to answer the question of when to replenish an order and what quantity should be ordered.

Hadley and Whitin (1963) present a stochastically-based model for a single product with no constraints. This model is designed through assumptions and estimations. In their study, Schrady and Choe (1971) present a deterministic, multi-product continuous review inventory model restricted by budget and reorder workload in order to minimise the total time for weighting shortages. In an attempt to extend Hadley and Whitin's (1963), Bodt and Graves (1985) study a multi-stage, continuous review inventory control system with a stochastic and

stationary demand. In order to minimise the expected holding inventory costs and the expected backorder cost, the study presents and analyses an approximated cost model (an analogous solution for the single-product model) with joint replenishments and relatively prime order frequencies.

Although it is inevitably important for companies to have a inventory control system in order to meet customers' needs, it is equally important to note that the key to meeting customers' needs and maintaining competitive advantage in a rapidly changing business environment is putting in place proactive, and working inventory management policies.

Customer service

According to Stock and Lambert (2001), customer service is a process involving buyer, seller and the third party that results in value adding of product or service exchanged and in accordance with the contract time frame (short term or long term). LaLonde (1985) define the concept of customer service in terms of levels of involvement of customer service (activity, performance measures and philosophy):

- a. Customer service as an activity. This level regards customer service as a set of tasks accomplished by a firm in order to satisfy various customers' needs. This includes order processing, billing and invoicing, product terms and claims handling.
- b. Customer service as performance measures. This level emphasises specific performance measures of customer service, such as the percentage of on-time and complete order delivery, and the number of on-time order processing.
- c. Customer service as a philosophy. This level positions customer service to a company's commitment to meeting customer service expectations. This comprehensive view of customer service which emphasises quality and quality management is at the core of many contemporary firms' logistics strategy.

Arguing with the definition of customer service in the final level, customer service as philosophy, as provided by LaLonde's (1985), Langley, Coyle, Gibson, Novack and Bardi (2009) note that the definition excluded the value-adding dimension, which is the philosophical goal of corporate customer service. They define customer service as "a process for providing competitive advantage and adding benefits to the supply chain to maximise the total value to the ultimate customer". According to Gu, Li, Zhang, Meier and Kroll (2009), a supply chain is a network of independent entities, which work together in order to provide a product or a service to the final customer.

Wisner and Stanley (2008) draw a distinction between reactive and proactive customer service. They say that customer service is reactive when the firm is able to solve problems encountered by customers. On the other hand, proactive customer service is harder for businesses to provide, but when well implemented, it often exceeds customer expectations and enhances customer relationship significantly. In his call for better customer service management, Johnston and Clark (2001) state that firms need to understand customer expectations and understand competitive forces in the business environment and manage expectations more effectively. Hoffman and Bateson (2002) have identified three types of customer expectations: predicted service, desired service and adequate service. While predicted service refers to a probability expectation where customers anticipate the occurrence of the level of service because of their familiarity with a company, desired service is an ideally expected service that a customer receives as compared with what was predicted. On the other hand, adequate service is a minimally expected level of service that a customer is willing to accept based on experiences.

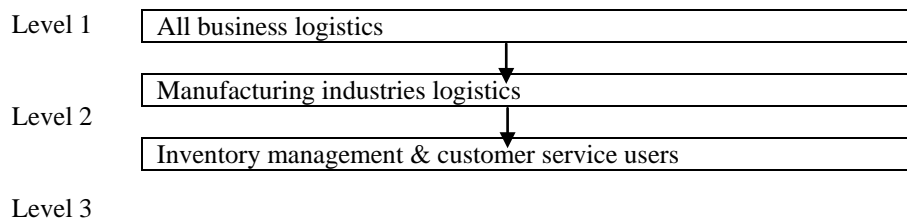
Customer service acts as the ligament that holds together all logistics and supply chain activities and ensures that customers are provided with required types of inventories and services at the right time and place. A well-designed and implemented customer service strategy contributes to operational performance and financial performance in both manufacturing and service industries. On the other hand, a poorly-designed customer service strategy will grind a company to a halt. The success or failure of companies is dependent on the choices that companies make regarding customer service, since these may have either a positive or negative impact on the achievement of corporate goals.

RESEARCH DESIGN AND METHODOLOGY

The sample

To understand the impact of inventory management policies on customers' needs, an empirical study targeting manufacturing industries' logistics was used. These industries were located in Gauteng Province (especially in Pretoria and Johannesburg as no company in the manufacturing industries' logistics was found in Vereeniging) operating in various sectors, including Machinery and Equipment, Textiles, Chemicals and Food, Beverage and Agro industrial products. The sampling approach followed to identify inventory management and customer service users from the target population is illustrated in Figure 1.

Figure 1: Sampling approach



Level 1 represents survey respondents of the entire business logistics, which includes both manufacturing and service industries. This was reduced to the target Manufacturing Industries Logistics per se. Level 2 excludes services industries and focuses only on the manufacturing industries logistics. Level 3 narrows the scope of respondents to those dealing with inventory management and customer service in order to attain the research purpose or objective set for this study. This means that more emphasis was placed on level 3 in the design of the questionnaire statements.

The numerical sample of the respondents per sector and area is depicted in Table 1.

Table 1: Sampling table

SECTORS \ AREAS	JOHANNESBURG			PRETORIA		
	Population Sample	Planned Sample	Realised Sample	Population Sample	Planned Sample	Realised Sample
Machinery & Equipment	28	14	7	15	10	10
Textiles	56	27	10	9	5	4
Food, Beverage & Agro Industrial Products	47	24	7	14	7	3
Chemicals	19	8	4	6	3	2
Total	150	73	28	44	25	19

The population sample extracted from the list of companies registered with the Department of Trade and industry as illustrated in Table 1 shows that a total number of 194 manufacturing industries in Gauteng Province (respectively 150 for Johannesburg and 44 for Pretoria). The planned sample of manufacturing industries in Gauteng Province was 98 of which 73 manufacturing industries for Johannesburg and 25 manufacturing industries for Pretoria. This sample is regarded as reasonable and ensures validity in the design of questionnaire design distributed to inventory and customer service managers, the target population of this study. It should be noted that the realised sample represents 47 (47.96%) of manufacturing industries in Gauteng Province of which 28 % for Johannesburg and 19 % for Pretoria. The differences between planned and realised samples are due mainly to no return of questionnaires sent to some of the manufacturing industries' logistics managers dealing with inventory management and customer service despite multiple time extension.

Data collection

To collect data, a survey questionnaire framed from insights of the literature review was mailed to inventory management and customer service users in different manufacturing industries' logistics in Gauteng. The survey

questionnaire comprised ten open-ended statements in order to capture the users' perceptions regarding inventory management and customer service. This was pilot tested by logistics managers from Immediate Electrical Power & Distribution, Accutech Weighing Service (Pty) and Vector Logistics Solutions) for clarity and practicability in manufacturing industries' logistics.

DATA ANALYSIS

In order to establish variable relationships, Fisher's Exact test for a (2x2) contingency table was used because of the small realised sample size (47 manufacturing industries' logistics) as above indicated. Steyn, Smit, Du Toit and Strasheim (1994) point out that Fisher's Exact test (P test of significance) for a (2x2) contingency table is used in cases where n is small or where the expected frequencies under Ho are not at least 5. It should be noted that the Fisher's Exact test are valid only for 60 per cent of the results of this study and the remaining 40 per cent of the results are merely reported.

The results

In order to achieve the objective of this study, quantitative analysis of dimension relationships is undertaken. In this study, the 0.05 level of significance table is used. Therefore, if p-value > 0.05, it means that the P value is below that needed for establishing the 0.05 level of significance. If p-value > 0.05, it shows that there is no statistical significant difference between the two variables. Otherwise, if p-value < 0.05, the null hypothesis (Ho), indicates that there is no relationship between the two variables, the population can be rejected. If the alternative hypothesis Ha shows there is a relationship between the two variables in the population, the population can be accepted. In order to present the results meaningfully, relationships between dimensions of data are used.

1) Use of a managerial system to coordinate inventory requirements across multiple locations (vv1) versus relationships among departments (v12).

Table 2: Relationship between managerial system to coordinate inventory requirements and relationship amongst departments

vv 1		v 12			
Frequency Expected Per cent Row Pct					
Col Pct		1	2	3	Total
1 - 2		36	4	0	40
		34.783	4.3478	0.8696	
		78.26	8.7	0	86.96
		90	10	0	
		90	80	0	
3		4	1	1	6
		5.2174	0.6522	0.1304	
		8.7	2.17	2.17	13.04
		66.67	16.67	16.67	
		10	20	100	
Total		40	5	1	46
		86.96	10.87	2.17	100
Frequency missing = 1					

From the view of a column percentage, 86.96 % of the respondents were in agreement that collaboration among departments may lead to external customers' satisfaction. Some 10.87 % of the respondents indicated that mutual support among departments may satisfy external customers' needs while 2.17 % of the respondents mentioned that communication may lead to external customers' satisfaction. In terms of row percentage, the abovementioned table shows that 86.96 % of the respondents of whom some 'definitely agreed' and the others 'agreed' that they use a managerial system to coordinate inventory requirements across multiple locations and

respond to the channel members' needs through distribution channels. The rest of the respondents, 13.06 % were neutral on this issue.

Of the 86.96 % of the respondents in favour of collaboration among departments within manufacturing industries' logistics:

- a. 90.00 % of respondents of whom some 'definitely agreed' and the others 'agreed' that they use a managerial system to coordinate inventory requirements across multiple locations and respond to the channel members' needs through distribution channels.
- b. 10.00 % of respondents were 'neutral'.

2) Use of a managerial system to coordinate inventory requirements and to respond to the channel members' needs (vv1) versus customers' complaints about service quality (vv13).

Table 3: Relationship between managerial system to coordinate inventory requirements and customers' complaints

Frequency Expected Per cent Row Pct Col Pct	vv 13		
	3 -4	5	Total
1 - 2	29	12	41
	27.915	13.085	
	61.7	25.53	87.23
	70.73	29.27	
	90.63	80	
3	3	3	6
	4.0851	1.9149	
	6.38	6.38	12.77
	50	50	
	9.37	20	
Total	32	15	47
	68.09	31.91	100

It has to be reported that, of the 68.09 % of the respondents of whom some 'disagreed' that customers within manufacturing industries' logistics complained about service quality while the rest were 'neutral', there are:

- a. 90.63 % of the respondents of whom some 'definitely agreed' and the others 'agreed' they use a managerial system to coordinate inventory requirements across multiple locations and to respond to the channel members' needs.
- b. 9.37 % of the respondents were 'neutral'.

Fisher's Exact test

Cell (1, 1) Frequency (F)	29
Left- sided Pr < = F	0.9275
Right -sided Pr > F	0.2826
Table Probability (P)	0.2102
Two -sided Pr < = P	0.3670

Sample Size = 47

As indicated in the above table, the P test of significance as reflected in the value of $p > 0.05$, leads to the conclusion that there is no statistically significant relationship between the use of a managerial system to coordinate inventory requirements across multiple locations and to respond to the channel members' needs through distribution channels, and the customers' complaints related to service quality ($P: P = 0.3670 > 0.05$).

3) Use of a managerial system to coordinate inventory requirements and to respond to the channel members' needs (vv1) versus service/product to customers at the right time and in the right condition (v14).

Table 4: Relationship between managerial system to coordinate inventory requirements and service or product received at the right time and in the right condition

Frequency Expected Per cent Row Pct Col Pct	v 14		Total
	1	2	
1 - 2	4	37	41
	4.3617	36.638	87.23
	8.51	78.72	
	9.76	90.24	
	80	88.1	
3	1	5	6
	0.6383	5.3617	12.77
	2.13	10.64	
	16.67	83.33	
	20	11.9	
Total	5	42	47
	10.64	89.36	100

Of the 89.36 % of the respondents that ‘agreed’ that customers within manufacturing industries’ logistics receive service/product at the right time and in the right condition, it has to be mentioned that:

- 88.10 % of the respondents ‘definitely agreed’ while the others ‘agreed’ they use a managerial system to coordinate inventory requirements across multiple locations and respond to the channel members’ needs through distribution channels.
- 11.90 % of the respondents were ‘neutral’.

Fisher’s Exact test

Cell (1, 1) Frequency (F)	4
Left- sided Pr < = F	0.5115
Right –sided Pr > F	0.8847
Table Probability (P)	0.3961
Two –sided Pr < = P	0.5115

Sample Size = 47

In the above table in terms of the use of a managerial system to coordinate inventory requirements across multiple locations and to respond to the channel members’ needs through distribution channels and the service/product at the right time and in the right conditions, the P test of significance as reflected by the value $p > 0.05$, leads to the conclusion that there is no statistical significant relationship between the use of a managerial system to coordinate inventory requirements across multiple locations and to respond to the channel members’ needs through distribution channels and the availability of service/product to customers within manufacturing industries’ logistics at the right time and in the right condition ($P: p = 0.5115 > 0.05$).

4) Use of a managerial system to coordinate inventory requirements and to respond to the channel members’ needs (vv1) versus the extension of market shares (v15).

Table 5: Relationship between managerial system to coordinate inventory requirements and to respond to the channel members’ needs and extension of market shares

Frequency Expected Per cent Row Pct Col Pct	v 15		Total
	1	2	
1 - 2	9	32	41
	9.5957	31.404	87.23
	19.15	68.09	
	21.95	78.05	

	81.82	88.89	
3	2	4	6
	1.4043	4.5957	
	4.26	8.51	12.77
	33.33	66.67	
	18.18	11.11	
Total	11	36	47
	23.4	76.6	100

Of the 76.60 % of the respondents who 'agreed' that service delivery extends market shares within manufacturing industries logistics, the following results were obtained:

- Of 88.89 % of the respondents, some 'definitely agreed' and others 'agreed' they use a managerial system to coordinate inventory requirements across multiple locations and to respond to the channel members' needs through distribution channels.
- The remaining percentage of the respondents, representing 11.11 %, were 'neutral'.

Fisher's Exact test

Cell (1, 1) Frequency (F)	9
Left- sided Pr <= F	0.4324
Right -sided Pr > F	0.8693
Table Probability (P)	0.3017
Two -sided Pr <= P	0.6138

Sample Size = 47

The P test of significance as reflected by the value $p > 0.05$, leads to the conclusion that there is no statistical significance between the two variables: the use of a managerial system to coordinate inventory requirements across multiple locations and to respond to the channel members' needs through distribution channels and the extension of market shares within manufacturing industries' logistics ($P: p = 0.6138 > 0.05$).

5) Use of a managerial system to coordinate inventory requirements and respond to channel members' needs (vv1) versus a strategic policy to meet customers' requirements (vv16).

Table 6: Relationship between managerial system to coordinate inventory requirements and to respond to the channel members' needs and a strategic policy to meet customers' requirements

vv 24	Frequency Expected Per cent Row Pct	vv 42			
	Col Pct	1	2	3 - 8	Total
1 - 2	4	29	7	40	
	4.3478	27.826	7.8261		
	8.7	63.04	15.22	86.96	
	10	72.5	17.5		
	80	90.63	77.78		
3	1	3	2	6	
	0.6522	4.1739	1.1739		
	2.17	6.52	4.35	13.04	
	16.67	50	33.33		
	20	9.37	22.22		
Total	5	32	9	46	
	10.87	69.57	19.57	100	

Frequency missing = 1

From the view of a column percentage, 10.87 % of the respondents reported the right product, the right time and the right conditions as a favourable strategy to meet customers' requirements within the manufacturing industries' logistics. The majority of the respondents (69.57 %) were of the opinion that the philosophy of prioritising customers' needs and satisfaction leads the manufacturing industries' logistics to meet efficaciously customers' requirements while 19.57 % of the respondents were of the view that other strategic policies such as

“sales increase companies’ strength, more customers, more money, positive attitude, business sense and management support” are negligible when the manufacturing industries’ logistics do not respond to customers’ requirements. From the view of a row percentage, the above table indicates that 86.96 % of the respondents of whom some ‘definitely agreed’ and the others ‘agreed’ use a managerial system to coordinate inventory requirements across multiple locations and respond to the channel members’ needs through the distribution channel. Some 13.04 % of the remaining respondents were ‘neutral’.

In conclusion, of the 69.57 % of the respondents that mentioned the link between customers’ needs and satisfaction is the right strategy to respond to customers’ requirements efficiently:

- a. The largest percentage of the respondents (90.63 %) of whom some ‘definitely agreed’ and the others ‘agreed’ that using a managerial system to coordinate inventory requirements across multiple locations and responding to the channel members’ needs through the distribution channel is the right strategy.
- b. Some 9.37 % of the respondents are ‘neutral’ on this issue.

Discussion of the results

A mean of 89.65 % of the respondents of whom some ‘definitely agreed’ and the others ‘agreed’ that using a managerial system to coordinate inventory requirements across multiple locations and to respond to the channel members’ needs through the distribution channel would be efficacious. Inter-departmental collaboration within manufacturing industries’ logistics plays a key role in responding to customers’ needs effectively. This prevents customers’ complaints about service quality by ensuring that services or products are received at the right time and in the right condition and enable manufacturing industries’ logistics to extend their market share. It is important to mention that there are no statistical relationships between the variables as indicated in Fisher’s Exact test: use a managerial system to coordinate inventory requirements across multiple locations and respond to the channel members’ needs through distribution channels, customers’ complaints about the service quality, and the extension of market shares.

The analysis of the objective of the study – determining the impact of inventory management policies on customers’ needs in the manufacturing industries’ logistics in Gauteng – in relation to the results as reported clearly indicates that the more the manufacturing industries’ logistics in Gauteng Province employ inventory management policies, the greater the extent that customers’ needs are met.

Managerial implications

The results of this study, as reported but with no statistical relationships between variables, indicate some efficacy achieved when a coordinated inventory policy and a strategically designed distribution channel are used. This suggests that inventory management policies used in the manufacturing industry meet customers’ needs. However, manufacturing industries’ logistics managers should strive to become more effective in their operating system or strategy and better service their customers’ needs. One of the ways to achieve this is through adequate and proactive inventory management policies. This requires intra- and inter-firm coordination and collaboration to ensure a smooth and timely sharing of inventory information as well as proper inventory-cost management and effective logistics making decision, since meeting customers’ needs depends on a firm’s logistics strategy or supply chain strategy.

CONCLUSION

In this paper the influence of inventory management policies on customers’ needs in the manufacturing industries in Gauteng Province has been investigated quantitatively. This study, based on the reported results, shows that the more frequently manufacturing industries’ logistics in Gauteng Province use inventory management policies, and the better customers’ needs are met. This suggests that inventory management policies have a significant impact on customers’ needs or customer service within the manufacturing industries’ logistics located in Gauteng Province. However, manufacturing industries’ logistics managers should continuously find better ways of improving their operating system effectiveness or strategy effectiveness. Implementing adequate and proactive inventory management policies would enable manufacturing industries’ logistics managers to

better control inventory and therefore improve logistics making decision. The findings presented in this study have obvious limitations and they cannot therefore be generalised to the entire Republic of South Africa. However, while the limitations are acknowledged, further investigation is needed to determine the impact of inventory management policies on customers' needs (customer service) in South Africa.

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DO WE NEED TO CUT BACK GOVERNMENTS' FORECASTS: OPTIMISM AS THE RULE OF THUMB?

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ABSTRACT

The purpose of this research is to prove government institutions' forecasting bias toward over-optimism. It has already been shown that private sector forecasts are less biased and more accurate than the ones performed by international agencies. However, it can be argued that this is not as dangerous as potential robust and systematic optimistic forecasting bias of government institutions. On the sample of seven Central and Eastern European countries we found that in six of them government institutions and private forecasting institutions systematically overrate real GDP growth rates. Also, in six of them ministries of finance GDP forecasts are steadily higher than private institutions forecasts. In five countries central banks tend to overrate GDP growth rates. However, central banks tend to be less overoptimistic than private forecasters.

Keywords: Economic forecasts, Policymakers' forecast bias, Central banks' efficiency, Public finance sustainability

INTRODUCTION

Economic forecasting has become an essential part of core business in every major national and international organization. There are also many private institutions, primarily banks, which are trying to predict movements of different economic variables. Scientists and researchers attempts to tackle the future are not lagging behind. Suffice to say, there are approximately 164,000 Google scholar search results for "economic forecasts gdp growth". The main reason behind the popularity of forecasting is in its potential to provide planning guidance for businesses and national policy makers. While the literature is flooded with papers aiming to improve forecasts, papers which deal with the efficiency and accuracy of these forecasts find them to be mostly incorrect. This became particularly evident in 2008, after the crisis hit the global economy and when forecasters, as usually, failed to predict it.

The aim of our paper is not to become another research of general forecasting uncertainties, nor to improve forecasting methods. However, we will look at general one-year-ahead forecasting accuracy since we were truly surprised by their inaccuracy in some countries (especially in Croatia). While keeping in mind general forecasting pitfalls, the main purpose of our research is to prove the government institutions' forecasting bias toward over-optimism. Verification of our hypothesis would have significant implications for central banks' efficiency and sustainability of public finances. More precisely, if central banks' forecasts have a tendency to overrate growth due to political pressures, monetary policy will tend to be over-expansionary which could result in higher inflation and jeopardize central banks' goals as well as with higher than optimal or targeted level of inflation. On the other hand, if ministries of finance overestimate future growth, budget deficit will have the tendency to grow more rapidly than projected due to the shortfall in budget revenues.

At this point, our analysis will be limited to Croatia, Czech Republic, Lithuania, Hungary, Poland, Slovenia and Slovakia in the period between 2008 and 2014¹. We concentrate our analysis on major macroeconomic variable - GDP growth.

LITERATURE REVIEW

The literature on economic forecasting is profuse. Economic forecasting dates back to the late 19th and early 20th centuries. Pioneers of economic forecasting were trying to use statistics and economic knowledge to predict the future, with only one aim – to profit from it. Friedman (2013) in his book explains who were first “economic fortune tellers” and how economic forecasting developed. Interesting fact is that although they failed to predict the crash of 1929, and even today’s forecasters failed to predict the 2008 crises, as well as all other downturns, economic forecasting still draws significant attention.

A bunch of literature on economic forecasting refers to how to improve methods of forecasting (see e.g. Norman and White, 1997, Hendry and Clements, 2003, Clements et al., 2004, Claveria et al., 2007, Ravnik, 2014) but Fides and Stekler (2002, p. 458) conclude that no superior forecasting method. Illustration of all methods of producing and evaluating forecasts with detailed real-world applications can be found in Diebold (2007). Wallis (1989) in his paper surveys developments in macroeconomic forecasting and concludes that forecasting methods have become more formalized and considerable progress has been made. However, Artis (1996) and Ormerod and Mounfield (2000) find that forecasting accuracy has not improved over time.

Forecast accuracy is mostly analyzed for international organizations forecasts. While the IMF’s method of forecasting is not available, OECD’s forecasting methods and analytical tools are available online. The World Bank goes even further and their model can be run onlineⁱⁱ. Consensus Economics (CE) compiles forecasts of many private forecasters and is known as the best predictor (it is a common sense that, if forecasts differ, some combination of them will be better than each of them individually). Batchelor (2001, 2007) compares the accuracy of macroeconomic forecasts for G7 countries (in the 1990s) by the OECD and the IMF to the average forecasts of private sector economists published by CE. The results showed that private sector forecasts are less biased and more accurate (Batchelor, 2001, 2007). After comparison of forecasting accuracy of the Consensus Economics to those of the European Commission, the IMF and the OECD, Novotný and Raková (2010) also came to conclusion that the CE forecasts significantly outperform others. On the contrary, Timmermann (2007) finds that IMF’s and CE’s forecasting performance is similar.

However, studies which assess the efficacy of forecasting, most of the time found them unsuccessful. That means that forecast quality is generally low and forecasts are usually over-optimistic. Nevertheless, Fides and Stekler (2002) stress that researchers pay too little attention to the issue of improving the forecast accuracy record. They found that forecasters seem to underestimate growth during the expansions and overestimate it during the recessions. Novotný and Raková (2010) confirmed a relatively low accuracy for next-year GDP growth forecasts, which are biased upwards by all institutions. Concentrating his research on real growth, inflation and unemployment rate, Aldenhoff (2007) finds that IMF projections also reveal an optimism bias.

Finally, although it is often said that “Forecasting is an art, not a science” (Stekler, 2007), in line with Hendry and Clements (2003) we conclude that, in practice, economic forecasts are a mixture of science (econometrics and other forms of statistical evaluation) and art (judgments about some events).

LOOKING BACK AT FORECASTS

Methodological Remarks and Data

National forecasts are taken from central banks and ministries of finance reportsⁱⁱⁱ. Depending on the publishing dates of these reports, private forecasts are taken from Consensus Economics (Eastern Europe Consensus Forecasts) which is published on a monthly basis^{iv}. Data on the realization of GDP growth are taken from Eurostat and national statistical offices. We utilized the latest available data, being aware of possible revisions. However, our conclusions should be independent of these revisions, since every institutions forecast is put against the same realization data. In our opinion, there is no reason why would any institution have a systematically greater or lesser probability to come closer with its forecasts to the realization data after they were revised. Although some studies (e.g. Batchelor, 2001 and Aldenhoff, 2007) use the preliminary data, McNees (1995, p.14) states that revised data contain more information and provide a better estimate of reality.

Second, we believe that our hypothesis could be easily verifiable by eye-introspection based analysis. To check our conclusions we will follow the usual procedure^v. We will first confront forecasts to realizations:

$$\varepsilon_{yt} = \hat{y}_t - y_t \quad (1)$$

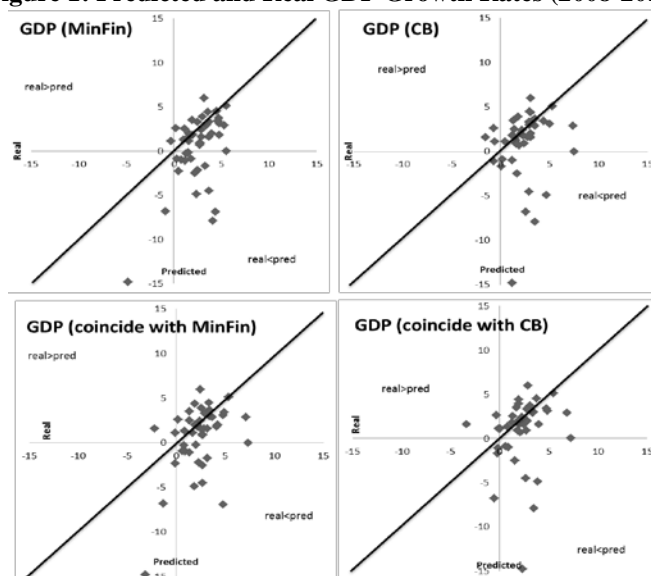
Here, ε_{yt} represents absolute forecast error for GDP growth, \hat{y}_t is GDP growth forecast, while y_t stands for the GDP growth realizations. We will examine forecasting accuracy by utilizing mean error indicator $ME = \frac{1}{T} \sum_{t=0}^T \varepsilon_{yt}$. This indicator will enable us to evaluate general forecasting accuracy and will help us to verify our central hypothesis. In other words, if public forecast providers make systematic errors, then public forecasts should (on average) have greater (positive) forecast mean errors than private forecasters.

Evidence of Overoptimistic Government Bias

This subsection provides the evidence of robust and systematic optimistic forecasting bias of government institutions. Figure 1 shows predicted and real GDP growth rates simultaneously. If the forecasts were perfectly correct than we could draw 45 degree line by connecting the dots. If the forecasters overestimated realized GDP growth rate than the corresponding dot is below 45 degree line on the figure and vice versa. What we can see is that the number of the dots below 45 degree line largely exceeds the number of dots above 45 degree line where they are far closer to the 45 degree line. This means that both – private and public forecasters – overestimate GDP growth rate more often than they underestimate it. However, when they actually underestimate GDP growth rate they do not deviate as much as when they overestimate it.

Still, we cannot claim that there is some large and systematic difference between private and public forecasters. However, data shows that in all countries ministries of finance forecasts are more optimistic than forecasts of private forecasters, except in Czech Republic where mean errors practically match. In the case of the central banks (CB) forecasts this is less obvious since in only three (of six^{vi}) countries there are a considerable positive difference between CB's and private forecasts. In the case of ministries of finance absolute error is significantly higher in Croatia and Slovenia than in other sample countries. On the other hand, Poland's ministry of finance is the best performer. Croatian error is of particular concern as we will confirm later. When it comes to CB forecasts, for Poland we have to reject our hypothesis since Poland's Central bank underestimates growth according to the mean error indicator. Slovenia is again in the worst performers group together with Lithuania.

Figure 1: Predicted and Real GDP Growth Rates (2008-2014)



* Coincide with MinFin (CB) means that the forecasts are taken from the CE which was published simultaneously with MinFin (CB) report.

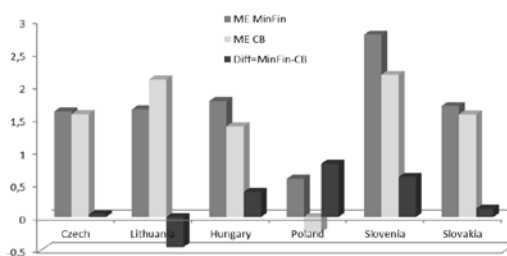
** Predicted GDP growth rates are calculated as average predicted growth rates of all available private forecasters.

Source: Eurostat, national reports, Consensus Economics

Even if forecasts of central banks and ministries of finance are not completely comparable (due to the different publication dates) it seemed to us that it would be interesting to see the difference between their projections. It is obvious from Figure 2 that central banks forecasts almost exclusively perform better (except in Lithuania). This is particularly encouraging in the context of their capacity to, as a member of the European System of Central Banks (ESCB), prepare biannual projections and independent assessments of national fiscal policy by using the standard forecasting and analysis methodology.

In order to eliminate the beginning of the crisis we calculated mean error of forecasts excluding 2009. The results again showed that most of the countries institutions overestimated growth (Poland's and Lithuanian central banks were the only exceptions). On the other hand, most of the private forecasters whose forecasts coincide with CB reports slightly underestimated growth rates. However, almost all private forecasters whose forecasts coincide with MFIN reports slightly overestimated them.

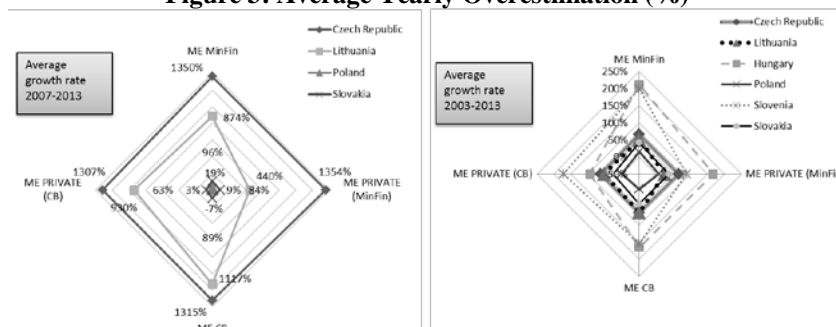
Figure 2: Mean Error Differences of Central Banks and Ministries of Finance Projections



Source: Authors' calculations based on Eurostat, national reports, Consensus Economics

We think that presented figures confirm what we intended to verify. Still, what these figures do not show is how much all forecast providers overestimate growth rates relatively to realized GDP growth rates. It seems to us that 2.5 pp average yearly overestimation is not that high and dangerous when the country grows, for example, 10% on average during the same period. This means that if one overestimates 2.5 pp on average his “over-optimism” equals 25%. However, in the case when the country grows 1% on average (or even falls), than overestimation equals 250%. This is why we show average error relative to average GDP growth rate (or the “over-optimism” indicator) on the Figure 3. It is visible that ministries of finance forecasts are more optimistic relative to the other forecasters. On the left diagram we present this indicator relative to 2007-2013 average growth rate. Croatia and Slovenia (the worst performers in the case of both public and private forecasts) along with Hungary are not shown in the left figure since their average growth rate during this period was negative. For these countries relative error is enormous and this indicator cannot be calculated. The left side of Figure 3 shows high inaccuracy and optimism bias for Czech Republic's and Lithuanian forecasts. To mitigate the effect of a recession in 2009 on average growth rates we calculated the same indicator but relative to 2003-2013 average growth rate (right diagram on Figure 3). According to this indicator Croatia (not presented on the figure because of lack of CB forecasts) is the worst performer where average “over-optimism” exceeds 550%. Croatia is followed by Slovenia and Hungary where average “over-optimism” exceeds 150%. Poland is the best performer with insignificant average “over-optimism” of 4%. Other countries average “over-optimism” lingers around 35%-65% range.

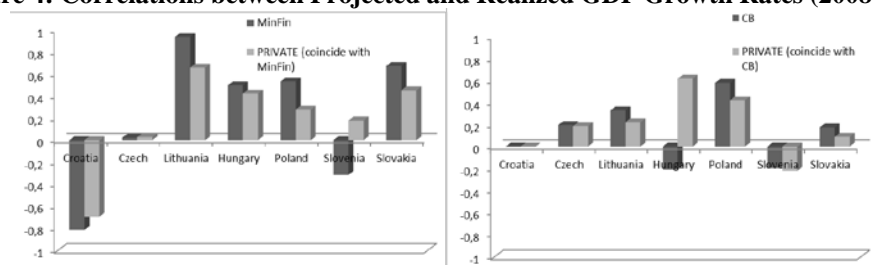
Figure 3: Average Yearly Overestimation (%)



Source: Authors' calculations based on Eurostat, national reports, Consensus Economics

Finally, we wanted to check the correlations between projected and realized GDP growth rates to see how well forecasters predict the “trend”. As it can be seen from the Figure 4, even if governments’ institutions are more optimistic and more inaccurate than private institutions they seem to perform better when it comes to the trend predictions in some countries. This may be due some inside information which are not available to general public (e.g. planned economic policies). In some cases it could also be due to better understanding of the determinants of an economy, since private forecasters generally do not have many business and other relations with the economy for which they are making forecasts. Croatia, Slovenia and Hungary are again the worst performers with even negative correlations (in Croatia as high as -0.81(MinFin)!).

Figure 4: Correlations between Projected and Realized GDP Growth Rates (2008-2014)

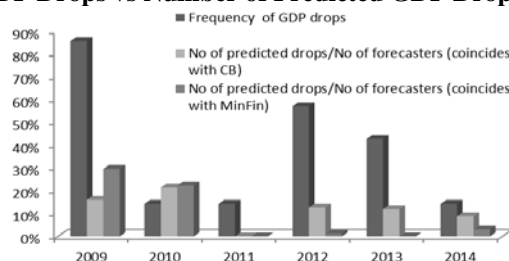


Source: Authors’ calculations based on Eurostat, national reports, Consensus Economics

Possible Explanation for High Forecasting Errors in Some Countries

Data analysis shows surprisingly high forecasts inaccuracy of both private and public institutions in some countries. It is most obvious in failing to predict the fall in GDP. As it is shown on Figure 5, in 2009, 90% of sample countries experienced GDP drop (the frequency of GDP drop), whereas just 16% (30%)^{vii} of all forecasters predicted it. In 2012, 57% of sample countries experienced GDP drop and in 2013 it was 43%. At the same time only 13% (1%) of all forecasters predicted it in 2012 and 12% (0%) in 2013. In all other years only Croatia experienced GDP drop and 3 of 10 (that coincides with CB) and 2 of 13 (that coincides with ministries of finance) forecasters predicted it in 2010 and in 2014 respectively. These findings are in line with Ahir and Loungani (2014) and Fides and Stekler (2002) research.

Figure 5: Frequency of GDP Drops vs Number of Predicted GDP Drops to Number of Forecasters



Source: Authors’ calculations based on Eurostat, national reports, Consensus Economics

The fact that most of the forecasters make similar errors made us think about correlations between forecasts of different projections providers. From the table presented below it seems that in some countries forecasters act like a herd. In Table 1 we present the frequency of correlation coefficients between forecasts of different projections providers which exceeds 0.95. These correlations are more frequent for forecasts published in the same time as ministries of finance reports.

Generally, frequencies are particularly high in Croatia which is undoubtedly the worst performer. Other countries that show relatively high frequencies of large correlations (above 50%) include Lithuania, Hungary and Slovenia, which have also been identified as inaccurate and biased forecasters.

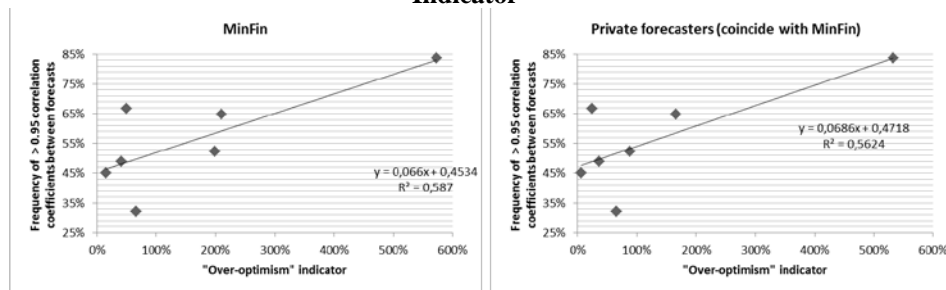
Table 1: Frequency of Correlation Coefficients Greater than 0.95 between Forecasts of Different Projections Providers

	Correlation (coincide with MinFin)	Correlation (coincide with CB)
Croatia	84%	NA
Lithuania	67%	100%
Hungary	65%	37%
Slovenia	52%	44%
Slovakia	49%	33%
Czech Republic	32%	38%
Poland	24%	33%

Source: Authors' calculations based on Eurostat, national reports, Consensus Economics

Positive relationship between frequencies of correlations above 0.95 and “over-optimism bias” indicator (for the average growth rates calculated over 2003-2013 period) is observable on Figure 6. Diagrams are showed for the ministries of finance and coinciding private forecasters and corresponding “over-optimism” indicators.

Figure 6: Frequency of Correlation Coefficients Greater than 0.95 between Forecasts vs “Over-optimism” Indicator



Source: Authors' calculations based on Eurostat, national reports, Consensus Economics

There are 3 possible explanations for this high correspondence and, therefore, for above-average forecasting errors in some countries: (i) it is a coincidence, (ii) all forecasters use very similar and (incorrect) forecasting model, (iii) one forecaster publishes his forecasts first and others just copy his and perhaps add/subtract some random number (or not completely random). Since we do not have evidence for neither explanation, the reader can decide which explanation is most likely to hold.

POLICY IMPLICATIONS

We can conclude that our analysis, although only descriptive, proves our hypothesis. Therefore, our results have significant implications for central banks' efficiency and ability to achieve targeted inflation rates as well as for sustainability of public finances. Namely, overestimation of growth rates could induce over-expansionary monetary policy which may perhaps result in higher inflation and jeopardize central banks' goals. Also, budget deficit will have the tendency to grow more rapidly than projected due to the shortfall in budget revenues. As a consequence, surging sovereign debt could easily expose public finances to unnecessary, and potentially avoidable, risks.

Data shows that countries which overestimate their growth usually have high debt to GDP ratio. If Reinhart and Rogoff (2010, p. 577) and Afonso and Jalles (2013) are correct and high debt/GDP ratios are associated with notably lower long term growth outcomes, than the over-optimism in forecasts is possibly a one-way ticket to low long run growth rates. Namely, correlation between “over-optimism” indicator and general government debt/GDP ratio in 2014 is 0.76.

Finally, our study can be taken only as an indicator of what is happening in the selected countries. Due to the short period of observation, general conclusions cannot be drawn. Nevertheless, our study sheds new light on the dangers of growth rates overestimation. As public debt is growing in this case, therefore increasing borrowing costs (rising interest rates) the burden of servicing the public debt increases. Additionally, the growth

of public debt (especially in periods of recession) hampers productive spending of public funds (public investments) since it is very difficult to quickly reduce current expenditures. Due to instantaneous investment slump, a downward spiral of the economy can be launched.

CONCLUDING COMMENTS

In this paper we have examined one-year-ahead forecasting accuracy of GDP growth in Croatia, Czech Republic, Lithuania, Hungary, Poland, Slovenia and Slovakia in the period 2008-2014. Our analysis provided the evidence of robust and systematic optimistic forecasting bias of both private and public forecasters. In the analyzed period overestimation of GDP growth rate happens more often than underestimation, and in the prior case the error is larger. Also, data showed that ministries of finance forecasts are more optimistic than forecasts of private forecasters, except in Czech Republic where mean errors practically match. As for the central banks forecasts, this was less obvious.

The biggest absolute errors in the case of ministries of finance were in Croatia and Slovenia. On the other hand Poland's ministry of finance is the best performer. As for central banks forecasts, we had to reject our hypothesis for Poland while Slovenia and Lithuania are the worst performers (Croatian data were unavailable). Again, central banks forecasts performed better than ministries of finance (except in Lithuania).

When we calculated the "over-optimism" indicator (average error relative to average GDP growth rate) and mitigated the effect of recession, Croatia turned out to be the worst performer where average "over-optimism" exceeds 550%. Croatia is followed by Slovenia and Hungary where average "over-optimism" exceeds 150%. Poland is the best performer with insignificant average "over-optimism" of 4%. Other countries average "over-optimism" lingers around 35%-65% range. Large forecasting errors seem to be highly correlated with frequencies of forecasts correlations above 0.95.

To conclude, we have showed that macroeconomic forecasters are mostly over-optimistic. There are at least two possible reasons for that: (i) forecasters will rather risk the bad judgment than to be the dire prophet (attacks are less fierce because the crisis is difficult to predict, and there are no penalties), (ii) most countries are not usually in a recession.

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Endnotes

- ⁱ Most countries in our sample do not have publicly published forecasts prior to 2006. However, due to the lack of private forecasts published simultaneously with government forecast we had to limit our sample to this period.
- ⁱⁱ Visit <https://isimulate.worldbank.org/>.
- ⁱⁱⁱ For some countries forecasts are taken from stability reports which are available on European Commission web pages.
- ^{iv} If government's institutions published their forecasts for 2011 in October 2010, than we utilized CE Forecast report from October 2010 to get the 2011 forecasts of private forecasters.

- ^v Our statistical analysis is completely descriptive due to the small sample and shortness of available data. This means that we will not be able to tackle statistical significance of our results. However, we believe that descriptive analysis gives just enough evidence to confirm our hypothesis.
- ^{vi} Croatian National Bank publishes forecasts since 2010 and was not willing to supply us with their earlier forecasts which were not publicly available. We considered this period too short for any analysis.
- ^{vii} The first number coincides with CB and the second with ministries of finance forecasts.

DETERMINING VIABILITY OF AN ACADEMIC PROGRAMME USING THE CLARIFICATIVE EVALUATION

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ABSTRACT

The higher education institutions (HEIs) offer qualifications and enroll students in academic programmes associated with these qualifications. It is only after the academic programmes have been rolled out that it is recognized that some are not viable. The offering of such programmes create problems for the HEI and the students enrolled as they have to be discontinued. The late recognition of this problem is associated with the fact that institutions of higher learning seldom do viability assessment. This paper advocates that Clarificative Evaluation (CE) grounded on philosophical underpinning of empowerment approach to evaluation should be conducted to determine the viability before the academic programmes are rolled out to the students. This paper discusses how this approach can be implemented. This will be done by exploring the conceptual and design stages of an academic programme. It also highlights the benefits of the CE.

Keywords: Institutions of higher learning, academic programmes, feedback, stakeholders, programme theory, programme logic framework

INTRODUCTION

The institutions of higher learning (HEIs) design qualifications and submit them to the Department of Higher Education and Training (DHET) for registration in order to obtain a legislative right to practice and include the new qualifications in the Programme Qualification Mix (PQM). If DHET approves and grant the legislative right to practice and the qualification is included in the PQM of an HEI a second process begins. An HEI develops an academic programme which is submitted to Council on Higher Education (CHE) through Higher Education Quality Committee (HEQC) for accreditation i.e. an ability to practice. The HEQC assesses whether an HEI has the ability to practice based on the criteria for programme input. Below are the criteria for programme input with areas and their relevant aspect used by HEQC.

Areas	Relevant aspects
Programme design	Relation to institution's mission and planning, Needs of students and other stakeholder, Intellectual credibility, Coherence, Articulation, Characteristics and needs of professional and vocational education, Learning materials development
Student recruitment, admission and selection	Recruitment, Legislative issues , Widening of access, Equity, Assumptions of learning, Professional needs , Capacity of the programme to offer quality education
Staffing	Qualifications, Teaching experience, Assessment competence , Research profile, Staff development, Size and seniority, Full-time and part-time staff, Legislation and conditions of service, Procedures for selection, appointment, induction and payment, Contractual arrangements, Administrative and technical staff
Teaching and learning strategy	Importance of promotion of student learning, Institutional type, mode(s) of delivery and student composition, Appropriate teaching and learning methods, Upgrading of teaching methods, Targets, implementation plans, and ways to monitor, evaluate impact and effect improvement

Student assessment policies and procedures	Internal assessment, Internal and external moderation, Monitoring of student progress, Validity and reliability of assessment, Recording results, Security, Recognition of prior learning
Infrastructure and library resource	Venues, IT infrastructure, Size and scope of library resources, Integration of library resources into curriculum, Management and maintenance of library resources, Library support and access to students
Programme administrative services	Provision of information, Identifying non-active and at-risk students, Dealing with needs of a diverse student population, Ensuring the integrity of certification
Postgraduate policies, regulations and procedures	Policies, regulations and procedures, Equity and access, Preparation of students

(HEQC, 2004, p.6)

After HEQC is satisfied that the above conditions are met it gives an HEI candidacy accreditation. It is after these processes have been followed that an academic programme can be rolled out and students enrolled in it.

From the above it is clear that most of the time the HEIs take decisions to offer programme based on the academic programme being compliant to institutional and external bodies' requirements like DHET, HEQC and South African Qualifications Authority (SAQA). Furthermore, it is clear that HEQC as accreditation body does not have a criterion that assesses the financial viability of an academic programme. However, it is understandable as this is the responsibility of an HEI. Before an HEI takes a decision to offer an academic programme it needs to have sufficient information regarding its financial sustainability. The main objective of evaluation is to influence decisions, therefore, it is along these lines that Clarificative Evaluation (CE) is proposed to influence decision regarding the financial viability of an academic programme (Habicht, et al., 1999, p10).

This paper is a discussion document which advocates that an HEI must conduct CE to cost the teaching activities so as to determine whether an academic programme is financial viable or not. To conduct CE before a decision is taken to commit the limited financial resources to offering an academic programme will reduce the risk of investing in wasteful expenditure. For the purposes of this paper financial viability refers to the revenue and costs involved in offering an academic programme. It is often realized later that a programme is financially unsustainable after it has been rolled out. This paper does not imply that the success of an academic programme should be measured only by its profitability but it puts emphasis on value and revenue as factors that contributes to sustainability of an academic programme. Zemky, Wegner and Massy (2005) as quoted by Swift (2012) assert that:

A "for-profit" enterprise aims to maximize profits, while a "not-for-profit" organisation like a university aims to maximise mission-attainment, within the context of marketplace and within the constraints of finance and productivity (p.259). Therefore value maximising is the key for a university. Massy (2004) cited by Swift (2012) explains value maximising in the form of an equation as shown below:

$$\text{Marginal value (contribution to mission)} + \text{marginal revenue} = \text{marginal cost (p.259.)}$$

Although the paper advocates for CE, the evaluand is the design part of an academic programme with a criterion called viability/feasibility of the design given the resource constraints. The paper will focus on how to identify the cost drivers, defined as factors that have a direct causal relationship with resources to be used (Carlson et al., 2009)

Clarificative Evaluation Method

Clarificative Evaluation is one of the five categories or forms of evaluative inquiry. Its main focus is to make explicit the theory which underpins a programme and sometimes is called the logic of a programme. The logic of the programme clarifies the link between assumptions of a programme, its goals and objectives, the implementation process and outcomes. It is advisable to conduct it before the implementation of a programme in order to get feedback on areas of weakness and improvement. The feedback obtained can be used to identify weaknesses in terms of financial sustainability of a programme which could be rectified. The people who work

with the evaluator are the programme planners, the programme staff, funders, decision makers and beneficiaries. The CE will be grounded in philosophical underpinning of Empowerment Evaluation.

The approach to be used is the empowerment evaluation of David Fetterman (2001). The empowerment approach seeks to help the participants to be self-reflective practitioners in order to improve their practice which in this case is the budgetary skill of the participants. The evaluator, who in this case is the author of the paper will be a facilitator or the coach in the process assisting in the development of the capabilities of stakeholders

Why Empowerment Approach?

Central to empowerment approach is the involvement of stakeholders in the evaluation of their programme. There is a Xhosa saying “Umaziwendlelangumhambiwayo or ngoyenauyaziyo” literally translated as “the road is known best by the one who has travelled the road” Van der Berg seems to support this saying when he said

Only he who knows the sea, the river, the stream
The lake, physically can write about what is really like (Van der Berg, 1972, p.77)

Furthermore, Rogers and Funnell (2001, ps.332-333) citing Perkins and Zimmerman also seems to provide the support by explicating assumptions of empowerment evaluation which entail:

- Problems are best addressed by the people experiencing them
- People possess valuable knowledge about their own needs, values and goals
- People possess strength that should be recognized and built on
- Processes can be implemented that developed independent problem solvers and decision makers.

The above implies that the evaluator has to understand the academic programme to be evaluated from the perspective of the stakeholders meaning the evaluator has to be empathetic. Furthermore, the principles of empowerment evaluation namely; Improvement, community ownership, inclusion, democratic participation, social justice, community learning, evidence based strategies, capacity building, organizational learning, accountability (Fetterman) have to be explained to the participants as they are relevant in providing the justification for its use as a way to encourage participation. This is a necessary condition so as to get the buy-in from the participants and their ownership of the results of the evaluation

Problem Statement

Currently, HEQC as an accreditation body does not have a criterion that assesses the financial viability of an academic programme. The costing model currently used is a historical one which ascertains fees by adding a percentage determined arbitrarily to the previous fees yet various scholars (Carlton et al., 2009; Massy 2004) argue that to ascertain the viability of an academic programme there is a need to have sufficient information regarding its financial sustainability. It has become clear that the issue of financial sustainability of an academic programme is a paramount importance. Therefore, a study to determine the viability of an academic programme using the clarificative evaluation method has been envisaged. Clarificative Evaluation (CE) influences decision making regarding the financial viability of an academic programme.

Research Methodology

Rossi et al defines evaluative research as “the systematic application of social research procedures for assessing the conceptualization, design, implementation and utility of social programme”(1993, p.5). The social research procedure or method uses qualitative methods to collect data. Within the qualitative methods the relevant techniques for CE are documents review, sites visits and observations and interviews/meetings with all stakeholders.. Thereafter the data is analyzed and results shared amongst all.

Techniques

Documents review

The first step is documents review. The documents review gives a perspective of the programme at the conceptual stage. It provides the programme history, how it is to be implemented, what informed it i.e. problem to be addressed, the beneficiaries, contextual issues, the resources needed and any other relevant information. The benefits of documents review is easy access to them. The process is cheap as there are no finances to be spent. Furthermore, the documents serve as a bank for institutional memory. Also the documentation contains information that is discreet as a result there is an opportunity of getting unobservable information. The disadvantages are that there could be lots of documents that are disorganized, obsolete, irrelevant and inaccurate. Also getting documents of confidential nature could be a problem.

Interviews/Meetings/Workshops

The second step in CE is the interviews/meetings/workshops with stakeholders. Normally the meetings and interviews take place after the documents review for purpose of clarity and ensuring that stakeholders have the same views and understanding about the nature of the programme. Furthermore, it is at this stage that a logic model framework is developed and presented. The interviewees are key informants, stakeholders who are knowledgeable about the programme.

Site visit and observation

The site where the programme is to be offered needs to be visited for quality assurance purpose. This is to ensure that sites are in good condition, have necessary infrastructure and consumables. If there are discrepancies observed they need to be noted and corrective measures are put in place.

The Participants

The participants or the interviewees are stakeholders, key informants, chosen because they are knowledgeable about the programme. They will be able to direct where particular information can be collected from.

APPLICATION OF CLARIFICATIVE EVALUATION

As indicated in the introduction this is a discussion paper indicating a perspective on how the author plans to implement the evaluation. The costing model currently used is a historical one. The current fees are determined by adding a percentage determined arbitrarily to the previous fees. The way the fees are calculated is a bone of contention for the students who yearly challenge the fee structure. Furthermore, the author, as an evaluator of all new academic programmes never considered the issues of financial sustainability during the approval process. However, it has become clear that the issue of financial sustainability of an academic programme is a paramount importance. The author argues that the CE is the suitable method to use as it will be objective to conduct before the programme is implemented. Underlying this method as indicated in the introduction will be the empowerment approach which would capacitate the departments, schools and faculties to be able to evaluate their programmes themselves. This would assist them with the knowledge that what they submit to governance structures for approval is compliant to institutional and external bodies' requirements and also financially sustainable.

The author proposes modified version of the Activity Based Costing (ABC). The model examines the cost of teaching activities, cost drivers and the resources that will be needed. The results of this exercise are put against the revenues received. The author assumes that HEI in South Africa receive their revenues from the following sources; Fees including bursaries, input grants from DHET as determined by full time equivalent (FTE), output grants from DHET on the basis of the number of graduates, research grant and some HEI generate

third stream income from short courses that they offer, donations from alumni etc. The teaching expenses/costs against these revenues incurred because of introduction of a new academic programme are as follows: course, staff salaries, and infrastructure like venues, laboratories/workshops, libraries, consumables, office furniture and equipment. I have not included costs like land and building which are mainly funded from the institutional funding.

Firstly, all documents pertaining to the academic programme will be reviewed and notes taken. Also at this stage the evaluator would have designed the logic model. The logic is a graphic display of a programme to be solved, its causal processes and activities to be conducted in order to achieve the specified outcomes. It is always assumed that if an input, namely finances are available this would result in all activities related to the academic programme will yield the results. The finances are always given by DHET as an input grant which is calculated using the FTEs. It is always assumed that if this grant is given by DHET all activities pertaining to the academic programme will implement. If they are implemented students will pass and the graduation rate will increase. The increased of the graduation rate will result in high amount of output grant given to the institution. Since not everybody has the knowledge of calculating the input and output grant the evaluator has to conduct a workshop in order to capacitate the stakeholders. Below, tables A&B are the examples of the calculations of these two grants which the staff to be trained.

INTERVIEWS/MEETINGS/ WORKSHOP

After document review, a logic model has to be designed and presented to the key informants. The purpose is to verify from them whether the information is correct and to present the logic model to them. The logic model would clearly specify what activities need to be done in order to achieve the outcomes. The interviews that would be conducted will be semi-structured as there would be questions like “How much would the activities cost in order to achieve the outcomes”? This implies that at this stage cost of activities would be taken place and a workshop would be conducted to determine the cost drivers of the activities. This is in line with Hanover Research Booklet (2010) which specifies the following:

- Identify all activities used to achieve the outcomes
- Determine the cost of each activity
- Assign costs to outcomes on the basis of the amount of each activity used by the outcome
- Re-assign resources to those activities that result in benefits to institutional outcomes and conduct internal benchmarking against other institution (p.3)

The above exercise will need a series of workshops so that with each activity and cost drivers could be identified. For example if there is an agreement that if allocation of teaching venues is identified as an activity then the question would be cost drivers for them. The cost drivers could be the space which is calculated in terms of square meters. The square meters will have to be costed. After the workshops meetings would be called to present what was agreed upon.

SITE VISITS AND OBSERVATIONS

The last step would consist of visiting the actual site to verify whether they are ready for use and to look at space issues. Furthermore, consumables for workshop, science laboratories, computers books.

CONCLUSION

It is anticipated that if Higher Educational Institutions implement the CE method it will lead to the objective evaluation of the viability of the academic programmes and help academic planners to make an informed choice at an early stage. The current system is subjective and the way the fees are calculated is a bone of contention for the students who yearly challenge the fee structure. Consequently, the implementation of the system will lead to more precise cost information for charging the fees and help promote a culture of evaluation where academic staff becomes reflective practitioners critiquing their work.

The CE method would further enable academic staff members to own the programme as they would have democratically participated in the design and development of the academic programme. Finally, the HEI would be able to commit its resources based on an informed point of view based on the evidence at their disposal and assist in curriculum planning.

LIMITATIONS

This research is not yet implemented, but will be conducted in the next months to come. Also there is limited literature in this area. Furthermore, the quality assurance measures should be integrated to ensure that the emphasis is not quantity of graduated produced but on the quality produced. Not yet benchmarked against other universities

TABLE A HOSPITALITY MANAGEMENT 2014								
SUBJECTS	HC	FTE STU	HE CR	NQF	UW FTE	WF	W FTE	SFTE
Culinary Prac	59	5.900	0.100	12	5.9	1.5	8.85	5.9
Culinary Theory	59	3.953	0.067	8	3.953	1.5	5.9295	3.933
Food & Bev Prac	59	5.900	0.100	12	5.9	1.5	8.85	5.9
Food & Bev Theory	60	4.020	0.067	8	4.02	1.5	6.03	4
Financial Management	73	9.709	0.133	16	9.709	1.5	14.564	9.733
Accommodation Management	61	10.187	0.167	20	10.187	1.5	15.281	10.1667
Hospitality Health & Safety	62	4.154	0.067	8	4.154	1.5	6.231	4.06667
Hospitality Communication	61	2.013	0.033	4	2.013	1.5	3.0195	2.03333
Hospitality Information Systems	61	3.05	0.050	6	3.05	1.5	4.575	3.05
Hospitality Management	63	9.45	0.150	18	9.45	1.5	14.175	9.45
Hospitality Service Excellence	63	4.221	0.067	8	4.221	1.5	6.3315	4.06667
Life Skills	60			0				0.13333
Preliminary Wine Certificate	60			0				
Total credits				120				

TABLE B TEACHING OUTPUT GRANT						
	HC	Grad uates	WF	WTOG	BM	Normative
3 year diplomas & bachelors' degrees	8 000	1 600	1.0	1 600	22.5%	1800
4 year professional degree	4 000	750	1.5	1 125	22.5%	900
Postgraduate diplomas	1 000	200	0.5	100	18%	180
Postgraduate bachelors' degree	500	350	1.0	350	18%	90
Honours' degree	500	200	0.5	100	54%	270
Non research master's degree	1 000	200	0.5	100	54%	540
Total	15 000	3 300		3375		3780

Unallocated teaching output surplus for the year: $[(121000-90\ 000)/121000]*1378$ million = R353M Teaching output grant $[3375/12100]*1378m = R38m$ Teaching output grant

LEGEND

HC	: Head counts of students
FTE ST	: Full time equivalent for students
HE CR	: Hemis credit
NQF	: National Qualification Framework credits
UW FTE	: Unweighted full time equivalent
WF	: Weighting factor
W FTE	: Weighted full time equivalent
S FTE	: Staff full time equivalent
WTOG	: Weighted teaching output grant

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LEADERSHIP ATTRIBUTES DRIVING THE TRANSFORMATION AGENDA IN A UNIVERSITY IN SOUTH AFRICA

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ABSTRACT

This study investigates the leaders' knowledge and leadership attributes that have the potential to influence transformation, post-merger and incorporation of the DUT. The research study is grounded in quantitative methods whereby a survey was conducted to 191 university leaders with 133 returned successfully generating the response percentage of 70%. The findings generated the reliability coefficient Alpha of 0.947 indicating the high degree of acceptance and consistent of the results. The findings revealed the highest percentage of 70% regarding the belief that transformation refers to restructuring the institution more than commonly anticipated variables such as race (56%). Furthermore the findings revealed that nearly 40% of the research participants do not feel that the university creates platform for open debates; independent thinking and freedom of speech (30%). This study is expected to contribute to the body of knowledge in the realization of both the institutional and national transformation agenda.

Keywords: Race, restructuring, stakeholder, transformation agenda

INTRODUCTION

Higher education institutions in South Africa have been merged with high expectations and condescending goals which have caused a plethora of challenges including tensions, violent confrontations and clashes amongst the key stakeholders on transformational issues. According to Ncayiyane and Hayward (2007, p. 23), 'transformation' in South Africa elicited various tensions and expectations from different constituencies. Joubert and Martins (2013, p. 112) argue that institutions of higher education continue to grapple with transformation issues due to additional pressure from stakeholders, including students, the business community and donors. They argue that the transformation agenda in UNISA covers the entire spectrum of the strategic planning process, including the vision, mission, values and institutional operations. Zide (2010, p. 650) argues that as part of the transformation agenda, open public debates should be held to interrogate issues of public concern as well as issues of governance, as they affect staff and students alike. While, a plethora of researchers have focussed solely on open debates (Heifetz, Kania & Kramer, 2004; Ramphele, 2008) as the way to provide solutions to challenges faced by higher education institutions. The current politicised South African higher education institutions (HEIs) dominated by the indecisive and politically deployed leaders have triggered this study. This study is influenced by different views previously presented by researchers above with an attempt to provide an empirically proven perspectives on leadership influence on transformation. The primary objective of this study is to interrogate the knowledgeability and leadership attributes that have the potential to influence and achieve the transformation agenda of the university.

CONCEPTUAL FRAMEWORK

The term "leadership" has many definitions but for the purpose of this study the term encompasses and refers to university managers to lead, drive and influence transformation. Olasupo (2011, p. 163) contend that leadership

is a process for social influence that a leader seeks the voluntary participation of subordinates in an effort to reach the institutional goals. This study recognizes the rich interpretations and understandings of the term leadership and invokes, as relevant, the vast discourse as understood by numerous authorities. On the account of this premise, it intends to establish leadership attributes that influence the era of transformation post-merger and incorporation at DUT. The term “transformation” can assume multiple meanings and definitions dependent on the context from which it emerges (Seedat, Khoza-Shangase & Sullivan, 2014, p. 69). Researchers in South Africa have defined transformation in terms of race (Francis & Hemson, 2010); efficiency (Ntshoe, 2004; Seedat *et al.* 2014, p. 70); change (Meyer & Botha, 2004; Ngara, 2003) and change of organizational strategy and structure, systems and processes, measurements and controls, culture and expectations, costs and capabilities (Oloyede, 2007).

LITERATURE REVIEW

The post-merger era of HEIs in South Africa has been clouded by a multiplicity of challenges, including lack of personal, interpersonal skills and cognitive capabilities amongst university leaders. Various researchers (Jansen, 2004; Kotecha, 2003; Seale, 2004) indicate that ineffective and inefficient leadership has been identified as one of the major weaknesses of South African Higher Education, which has impeded the transformation agenda. Mendenhall, Osland, Bird, Oddou and Maznevski's (2008) note the key differences between "global leaders" and "leaders" that global leaders face more uncertainty and greater contextual changes. The successful leader is the one who can interpret the difficult and complexities, and present then in a simplified and understandable way to followers (Service, 2009b). Service and Carson (2013, p. 47-8) aver that leaders all can gain wisdom, by properly reflecting on their mistakes and triumphs and not treating those two imposters the same. As Gergen (2009) notes, developing leaders is a need shared throughout the world. Noted leadership scholars Neck and Manz (2013) posit that all who desire to improve leadership effectiveness must commit to a lifelong journey of purposeful learning. To address global leadership realities, contextually adaptive people who can lead must be developed (Service and Loudon, 2012). There are a multiplicity of challenges and hindrances in transforming HEIs in South Africa which include leaders' indecisiveness and being afraid to make difficult decisions (Mabelebele, 2013; Makgoba & Chetty, 2010, p. 168; Van Niekerk, 2005). Naidoo and Van Der Walt (2005, p. 1) indicate that there is an urgent need for transformation in South Africa, which requires strong leadership to drive the process.

Singh (2001) argues that the restructuring of higher education is a worldwide phenomenon and it is possible to identify some common trends in the restructuring process as seen in many developed economies in the 1990s. Higher educational institutions are increasingly being required to demonstrate efficiency, accountability and productivity from various quarters, notably from the state which is usually the major source of funding for higher education, as well as diversifying their sources of funding (Lee, 2004). Hall, Symes and Luescher (2004, p. 28) argue that as a general qualification, it must be reiterated that the South African restructuring of higher education is unique, to the extent that it is driven by a political agenda of transformation, redress and equity which explicitly seeks to break the apartheid mold of higher education. This is supported by Seedat, Khoza-Shangase and Sullivan (2014, p. 69) that there is a tendency to limit transformation to racial and gender composition of students and staff in gauging whether the institution has transformed. This is also concurred by Chalufu (2002), Cohen (2006), and May and Mason (2007) who had observed tensions post-mergers and incorporations in different HEIs. Zide (2010, p. 199) avers that a management that does not create space and platforms for people to openly air their views is not promoting transformation. Whereas, there are a plethora of researchers who have mentioned interpersonal skills (Davis, n.d. and Niemann, 2010) active listening (Pastor & Mayo, 2008; Spendlove, 2007); the process of being able to listen, link and lead (Fullan & Scott, 2009) as being linked to effective leadership in higher education institutions. There is a plethora of researchers who have cited capacity and talent, working productively, calmly and being able to make difficult decisions (Fullan & Scott, 2009; Mabelebele, 2013; Service & Carson, 2013, p. 48) as some major capabilities required in higher education institutions. According to Hempsall (2014, p. 386), there is a strong sense that traditional leadership skills are no longer as effective as they used to be and that leaders need to develop additional skills to be able to meet the challenges they face.

RESEARCH METHODOLOGY

A quantitative approach (Cresswell, 2009) was employed whereby a structured questionnaire that reached a large number of employees in leadership positions (junior to middle) which made possible for the quantification of the findings. Quantitative designs deal with a large number of respondents, use numbers to generalisable comparisons and conclusions about populations (Ghauri & Gronhaug, 2005) as the case in this study. The empirical study was conducted by means of a survey questionnaire which provided for the collection of large amounts of data. The study employed a stratified random sampling of 191 respondents, ideal to test for the finding's reliability and validity, distributed equitably between academic and non-academic leaders with university leadership between Peromnes Grades 8 and 6 (junior and middle management). The stratified random sampling is a modification of random sampling in which a research divides the population into two or more relevant and significant strata based on one or number of attributes (Lewis, Kaufman & Christakis, 2008, p. 215-223). A host of researchers (Welman, Kruger and Mitchell, 2005 and De Vos, Strydom, Fouche and Delport, 2005) argue that a sample can only be described as representative if it has the same properties or characteristics as the population relevant to the research in question. A structured questionnaire using a five-point Likert scale was developed with a range from (1) strongly disagree, (2) disagree, and (3) undecided, to (4) agree, and (5) strongly agree, allowing for the perspectives and views of the sampled university leaders to be captured through responses to leading statements.

Measuring instruments

As all participants were competent, they was capable of completing the questionnaires unassisted. The statements that were included in the questionnaire used in this study were formulated in accordance with the guidelines by Fullan and Scott (2009); Hemsall (2014); Mabelebele (2013); Makgoba and Chetty (2010); Mendenhall *et al.* (2008) and Service and Carson (2013). Mendenhall *et al.* 2008; Service and Carson (2013); Cohen (2010); Neck and Manz (2013); Seedat *et al.* (2014).

Data collection

The data were collected over a three-month period from May to July 2013. Of the total of 191 questionnaires distributed, 133 responses were received representing a 70 percent response rate. To maintain confidentiality, the questionnaires were distributed and collected by the researcher. The Cronbach's Coefficient Alpha values for individual dimensions were high and a reliability coefficient of 0.947 was recorded.

Data analysis

The quantitative data collected from the respondents was analyzed using SPSS, version 12 for data capturing, presentation, analysis and interpretation.

RESEARCH FINDINGS

The research findings indicate that there is a need for improvement regarding leadership factors influencing transformation and this implies that they need to be prioritised when radical change management interventions are conducted with the aim to achieve an institutional transformation agenda. A frequency analysis was undertaken to determine the exact areas where attention is needed. This study found 56% of the respondents having an understanding of transformation in the context of race. Only 21% of them had a different view. The research findings reveal nearly 70% of the respondents as understanding transformation in the context of restructuring of the institution. Only 13% of the subjects had a declared disagreement with the latter finding. This study shows nearly 56% of subjects regarded transformation as referring to moving away from the comfort zone into the unknown. Only 19% had an opposite opinion. Over 60% of the research subjects understood transformation as referring to changes taking place in our society. The research findings on redressing past injustices, at nearly 60%, are closely equated to the statement on transformation as referring to reflecting the changes taking place in society. Almost 50% of the research participants had an understanding of the transformation agenda of the university; about 30% had a contrary view. This study also demonstrated more than

half (54%) of the research participants as understanding the nature of transformation problems within the university. Only 19% of the research participants had an opposite understanding, which is far less than the disagreement observed in the understanding of the transformation agenda. Furthermore, the study shows more than 40% (42%) of the research participants as understanding transformation solutions of the university. The latter findings also shows a large number of respondents (35%) as undecided regarding university leaders understanding of the transformation solutions, which is the highest as compared to other all variables of the study.

Nearly 45% (44%) of the research participants viewed that independent thinking is promoted in this university. Only 31% of the research participants had a different view which is somehow comparable with the number of “undecided” respondents. This study shows the majority of the respondents supporting the notion that freedom of speech () is promoted in this university. Only 29% of the respondents had opposite views. The research findings shows that 37% of the respondents confirmed that the university leaders understand their personal strengths. Only 24% of the research participants had opposite views regarding this statement. The research findings reveal a high percentages of 48% of the respondents that believed that university leadership is proactive from the top. This percentage is much higher as compared to other variables of the study. Only 23% had opposing views, while 29% remained undecided. The total percentage of 43% of the research subjects were of the perception that university leaders manage without fear. Only 20% of the respondents had a differing view.

DISCUSSION

Objectives: The university leaders’ knowledge of transformation, as based on restructuring (with the largest percentage of 70% as compared to the lowest other variables of the study and backed by qualitative findings), has been echoed by a plethora of researchers. This includes Lee (2004) who states that HEIs are under pressure to restructure where this restructuring is driven by a political agenda (Hall & Lueschen, 2004) and improving managerial efficiency (Seedat et al. 2014, p. 70; Varghese 2004). Almost half (49%) of the respondents had an understanding of the transformation agenda of the university. This is in agreement with Martins and Joubert (2013, p. 112) and Zide’s (2010) argument that the transformation agenda should be aligned to the institutional strategic planning process of the university. The majority of the respondents (54%) having an understanding of the transformation problems within this university, is in keeping with Martins and Joubert (2013, p. 112) that HEIs grapple with transformation issues due to additional pressure from stakeholders. This is also concurred by Chalufu (2002), Cohen (2006), and May and Mason (2007) who had observed tensions post-mergers and incorporations in different HEIs.

Interpretation of the results indicates that quite a large number of respondents hold opposite and undecided views on all factors considered central to transformation. For instance, the extent of sentiments against freedom of speech and independent thinking violates Section 16(1) of the Constitution and Education White Paper 3 of 1997 that promotes fundamental rights of academic freedom. However, these study results are in accord with Shattock’s (2013) and Joubert & Martins (2013, p. 112) argument that academic voices have been distanced from the central institutional policy debate in higher education institutions and there is diminishing freedom of expression (Odhiambo, 2014). Even though these findings contradicted the fundamental rights, as enshrined in the Constitution and White Paper 3 (RSA, 1997) as well as other researchers as presented above, this study interrogates specifically university leader’s openness on debates at the UoT, post-merger and incorporation in South Africa. The highest proportion of disagreement (24%) relating to the respondents’ perception that leaders learn from their mistakes is contrary with Fullan & Scott’s (2009) finding. These researchers mention leaders who are willing to admit to and learn from errors as having personal capability. This finding also confirms the view by researchers (Service and Carson, 2013) that leaders should reflect on their mistakes.

CONCLUSION AND RECOMMENDATIONS

This study observed that transformation in higher education institutions in South Africa is not solely understood as referring to race and redressing past injustices, as evidently shown by the high percentage of the respondents who referred to transformation as restructuring of the institution (70%). This study observed that just under half

of the respondents have an understanding of the transformation agenda of this university. This raises serious concerns about the strategic stance, direction and efforts of the university in achieving the transformation agenda, as more than half of the respondents are either in disagreement with or undecided about their understanding of the transformation agenda. This suggests that the university does not have an agenda or plan to resolve matters brought by transformation in the post-merger and incorporation era of this university. The most notable finding supporting the aforesaid conclusion that a high percentage of university leaders had contrary views and were undecided about their understanding of the transformation solutions within the university. The major limitations of this study was on the research participants is reluctant to divulge information as they were afraid of being victimised by university leaders. For future research it is suggested that this study should be replicated at other merged universities in South Africa as the way to develop a remedial comprehensive plan where commonalities exist in terms of challenges. Future research should focus on the open-ended questions and focussed groups in order to triangulate the aforementioned findings. Future studies could investigate how internal responsive training and developmental programmes could realise the transformation agenda of the university and that of the society.

Therefore, this study came to the conclusion that in order for the leaders to improve the knowledge of transformation, the following recommendations should be taken into consideration:

- 1) The university leaders should embark on the realignment or restructuring of faculties and departments with clear outcomes and outputs in order for the transformation agenda to be realised.
- 2) The university leaders should ensure that all university leaders share the same knowledge on transformation which could be earned by sensitizing the university leaders and interventions of change conducted.
- 3) The university leaders should ensure that institutional structures are deliberating on transformation issues and take measurable decisions and resolutions aimed at bringing about radical changes.
- 4) The university should have an all-encompassing strategic plan with clear measurable transformation goals, outputs and outcomes in place in order for all university leaders to understand and act upon the transformation agenda of the university.
- 5) The university leaders should have an open door policy with a clear communication plan which will increase the visibility and accessibility of the leaders by their stakeholders in order to be able to air their transformational views, suggestions, initiatives and uncertainties without any fear.

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AN EXPLORATORY STUDY ON FACTORS AFFECTING THE QUALITY OF WORK LIFE IN A UNIVERSITY IN SOUTH AFRICA

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ABSTRACT

The radical changes in conventional administrative systems and processes driven by the New Public Management (NPM) philosophy in Higher Education Institutions (HEIs) has degraded the Quality of Worklife (QoWL) of employees. This study investigates the impact of this philosophy on the QoWL of employees at university "A". The study employed a mixed-methods approach whereby 160 structured questionnaires were completed and 16 in-depth interviews were conducted with university employees. The study findings revealed contradictory views regarding the research participants' knowledge of the policies related to the QoWL with equally claiming their availability though inconsistently applied and not enforced by the university leaders.

Keywords: Career development, managerialism, New Public Management, skills development, University "A"

INTRODUCTION

Parsa, Idris, Samah, Wahat and Parsa (2014, p. 108) argue that QoWL should view the organisational environment in accordance with employees' needs (health and safety, economic and family, social, esteem, actualisation, knowledge and aesthetic). While, Sirgy, Efraty, Siegel and Lee (2001, p. 241) affirm that QoWL is determined by employee satisfaction with a variety of responses to their needs provided by resources, activities and outcomes stemming from participation in the workplace. Studies have found that high QoWL employees have a high level of organisational recognition, job fulfilment, job performance and a lower level of turnover and personal hostility (Donavan, Brown & Mowen, 2004; Homburg & Stock, 2004). The success of any organisation depends on the efforts and career advancement (i.e., salary, goal achievement, promotion prospect) of its employees (Parsa *et al.* 2014, p. 109). Botha and Potgieter (2009, p. 246) perceive informal learning, through seminars and conferences, as the most relevant form of learning in HEI, especially by academic staff, and this type of learning directly influences their career development and thus their QoWL. Learning opportunities and skills development have been proven to have a positive effect on job and career satisfaction and to reduce job stress, which results in better QoWL (Rethinam and Ismail, 2008, p. 64). This study is triggered by the perspectives presented above regarding the QoWL in organisations. However, this study also explores another angle, taking into consideration an employee's knowledge of policies related to the QoWL and factors influencing the QoWL with respect to job satisfaction. This study is further necessitated by the poor organisational culture and job satisfaction amongst employees in South African HEIs, inept managers and inconsistent application of policies related to the QoWL.

Increased workload through administrative work and aligning curricula together with policy and procedures and a lack of organisational support, were indicated as the most significant factors of burnout among academics (Rothman *et al.* 2008, p. 418). Cameron (2009, p. 910) states that performance management is a critical part of the South African public service transformation, it has however been "erratically and inconsistently applied". According to Manyaka and Sebola (2012, p. 299), management of employees' performance is legislated and therefore public organisations are given a mandate to manage and streamline the performance of their employees. This study is informed by the arguments raised above, and investigates their

effect on the QoWL of employees. The primary objective of this study is to investigate factors influencing the QoWL of employees in University "A".

LITERATURE REVIEW

New public management in HEIs

In the 1980s, the government and academics alike were not sure if the conventional administrative system was as effective and efficient in managing the public sector as the system that was used in the private sector. This brought about new ways of running the government like a business to deliver service, and this brought about the birth of a new management approach (Hughes 2003, p. 48). In 1991 Christopher Hood (1991, p. 3-19) came up with the terminology "New Public Management" (NPM) to classify the wide range of transformations that were taking place in the United Kingdom. The "NPM" then became a phrase for a wide range of programmes that were seeking to recognise public sector organisations to allow public service providers to be competitive like their private sector counterparts. This study recognises and aligns itself to the perspectives advanced above, though an extension is made by investigating whether newly imposed private sector principles and systems in HEIs affect the QoWL in university "A". "NPM" ideology was grouped into management in government and a new institutional economy which accentuates the markets and competitiveness as a means of giving freedom of choice, and many of the NPM approaches are borrowed from the private sector (Basheka, 2012, p. 53). Hood (1996: 268) argues that the "NPM" is the apparent move away from what now is seen as a traditional progressive-era set of doctrines of good administration emphasising the orderly hierarchies, depoliticised bureaucracies, elimination of duplication and decentralisation, towards what has been described as the "NPM". The South African Presidency Report (2007, p. 101-102) states that one of the characteristics of the "NPM" is performance management which includes rewards and incentives to improve performance. Rabin, Hildreth and Miller (2007, p. 1070) affirm that technological advancement is the driving force behind the "NPM". This study seeks to find out to what extent the principles of the NPM are applied in HEIs in South Africa. This is due to the fact that employees in HEIs in South Africa resist change and have toxic QoWL which has dramatically lowered the culture of performance and productivity. The adoption of NPM principles of managerialism could pave the way for civil servants to accept the private sector principles of speedy, quality, effective, efficient and economical service delivery.

Managerialism has the potential to aid inefficiencies in university systems and processes, as it could help to simplify the complex university management environment. To cope with the identified negative effects of managerialism, middle managers create their own systems outside the bureaucracy and provide more support to peers and subordinates (Davis *et al.* 2014, p. 1). Sukram and Hoskins (2012, p. 96) state that employees will only provide good service if they receive good service from their managers, and they need to be valued by their managers. University management structures have been known for inherited public sector management styles, many hierarchical layers, costly administrative burdens (Chaharbaghi, 2007, p. 319) and bureaucratic systems. Growing evidence exists that higher education is gradually being appropriated by managerialist ideology originating from the private sector (Kolsaker, 2008, p. 513). These challenges include the more managerial nature of HOD work in both statutory and chartered universities (Smith 2002) and an increasing amount of management and bureaucratic work at the expense of their teaching and research (Floyd, 2012). In contrast to the middle managers in administrative departments, some academics find themselves in management roles which they did not necessarily aspire to but that are required in the university management context (Rowley and Sherman, 2003). This study investigates the pros and cons of managerialism as advocated by the NPM philosophy. An extension is made in this study by interrogating the effect of managerialism on the QoWL of employees and their levels of satisfaction.

Cultivate career development practices

Senge (1990, p. 140) states that a manager's primary duties are not limited to planning, organising, leading and controlling but also include creating a favourable environment for employees to lead fulfilling lives at work. In such an environment the employee will utilize the knowledge gained to the employer's advantage, and to develop their careers. Career development was identified as one of the aspects that impact on job satisfaction and

QoWL (Pienaar & Bester, 2009). The Public Service Commission (2008, p. 75-77) recommends that career management in public service should be assessed annually by evaluating the institution's needs in line with specific skills needed. Competencies can be developed by the nature of the job that one performs provided that the job provides stimuli for skills development, motivation, knowledge and opportunities for career or organisational development. Furthermore, recognition and acknowledgement from the supervisor will make one feel satisfied and appreciated at work (Li & Yeo, 2011, p. 40). The researchers state that employees view their career development in the organisation as a way of improving their QoWL. Furthermore, when employees enlarge and enrich their job through training and professional development, they will attribute QoWL to a time period where they will see themselves making progress and becoming employees of increased value in the eyes of their employer (Li & Yeo, 2011, p. 42). Though this study is guided by the views of the commentators above, this study advances their views by investigating factors that negatively affect their satisfaction, reduce their QoWL and lower their subsequent performance.

South African Skills Development Act of 1998 (Act 97 of 1998)

The purpose of the South African Skills Development Act of 1998 (Act 97 1998) is to provide an institutional framework to forge and implement national, public and private sector workplace strategies to develop and improve the skills of the South African workforce. These workplace strategies should be integrated within the ambit of the National Qualification Framework (NQF) in the South African Qualifications Authority (SAQA) Act of 1998 (Act 58 1998) to provide learnerships that lead to recognised occupational qualifications. The Skills Development Act (SDA) influences the health and wellness of employees in that it enhances the development of employees who previously lacked competencies by up-skilling them and therefore reducing their stress levels when they perform their duties (Sieberhagen, Rothmann & Pienaar, 2009, p. 23). Section 2(1) (a) of the SDA further stipulates that its purpose is to improve the quality of life of the South African workforce, their prospect of work, labour mobility, competitiveness, to improve productivity in the workplace and to improve the delivery of social services. Lee (2002, p. 4) is of the opinion that the private and public organisations are considering the SDA as just another system of taxation. The study conducted at the University of Free State (UFS) by Davis, van Rensburg and Peet Venter (2014, p. 1), revealed that despite many requests from top management for input on policies and processes, the participants described their perception that when they (middle managers) do provide input, their input is discarded by top management.

Occupational Health and Safety Act 85 of 1993

The primary purpose of the Occupational Health and Safety Act (OHSA) of 1993 (Act 85 of 1993) is to provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery. Section 108 of the OHSA states that every person is entitled to a safe and healthy working environment. Section 8 of the OHSA imposes an obligation on every employer to provide and maintain, as far as is reasonably practicable, a safe working environment that is risk-free to the health of employees. According to the Industrial Health Unit (1999, p. 2) the OHSA is based on the principle that dangers in the workplace must be addressed by communication and co-operation between the employee and the employer, both parties must proactively identify and control hazards to make the work environment safe. Section 7 of the Basic Conditions of Employment Act (BCEA) 75 of 1997 necessitates an employer to regulate the working period of every employee and take into account the health and safety of employees. While this study is guided by the above prescripts, their violations are being investigated in this study by looking at health and safety conditions in this university and their impact on the job satisfaction and the QoWL of employees.

RESEARCH METHODOLOGY

This study embraced the interpretivist perspective as prescribed by Saunders, Lewis and Thornill (2007, p. 103) as it is investigating the effects on the QoWL of employees at a higher education institution. The preference for this methodological discourse was made as it is deemed relevant to help explore, analyse and investigate the views and perspectives of leaders in cases of management research, particularly in the field of organisational development. In this study, a mixed-methods approach (Cresswell, 2009) was employed which was made up of a structured questionnaire that reached a large number of employees, enabling some quantification of findings, and

in-depth interviews targeting university employees. This mixed method was used to enable triangulation, the (semi-structured group) interviews were a valuable way of doing so through a structured questionnaire (Saunders *et al.*, 2007, p. 147). The interviews were piloted on five employees to gauge their perceptions regarding their QoWL in this university. The pilot study was conducted before using a questionnaire to collect descriptive data. Piloting a study is one widely recognized and accepted method of dealing with reliability and validity which this study has undertaken Mays and Pope (1995, p. 10).

Quantitative research approach

A quantitative research approach using questionnaires was used to solicit data to understand employees' perceptions of the factors which influence QoWL and the extent to which the QoWL influences employee's job satisfaction at university "A". Quantitative designs deal with a large number of respondents, use numbers to generalizable comparisons and conclusions about populations (Ghauri & Gronhaug, 2005) as is the case in this study. This study used probability stratified random sampling which is a modification of random sampling in which a researcher divides the population into two or more relevant and significant strata based on one or a number of attributes (Lewis, Kaufman and Christakis, 2008, p. 215-223). The total of 160 structured questionnaires were distributed to both academic and non-academic employees. There was the total of 142 who were returned successfully generating the response percentage of 89%. As all participants were competent, they were capable of completing the questionnaires unassisted. Items in the questionnaire were based on ten leadership attributes of career opportunities (Botha & Potgieter, 2009; Hamidi *et al.* 2011; Parsa *et al.* 2014; Skills Development Act); job satisfaction and workload (Rethinam & Ismail, 2008); employees health and safety (Occupational Health and Safety Act and policies related to the QoWL (Rensburgh & Peer Venter, 2014). The items were measured using a five-point Likert scale which was developed with a range from (1) strongly disagree, (2) disagree and (3) undecided to (4) agree and (5) strongly agree, testing the perceptions of the university employees through leading statements.

Qualitative semi-structured interviews

The qualitative aspect of this study used non-probability purposive sampling (Babbie & Mouton, 2004, 166), as this study is located within the discipline of human resources management in higher education institutions. Anderson *et al.* (2007, 226) assert that for other business and management research projects the research question(s), objectives and choice of research strategy may dictate non-probability sampling. Interviews were used in this study to obtain information on factors influencing the QoWL of employees at university "A". In-depth interviews were conducted with 16 academic and non-academic managers from Peromnes Grades 8 to 5. These included academic HODs (4); Financial Aid HOD (1); Organizational Development Coordinator (1); Accountant (1); Policy Development Officer (1); Senior Examination Officer (1); Deputy Director: Sports (1); Student Development Officer (1); Director: Human Resources (1); Lecturers (4). The 'phenomenological interview' (Kvale, 1996) was used as the interview method. The data were collected over a three-month period from May to July 2013. To maintain confidentiality, the questionnaires were distributed and collected by the researcher. The Cronbach's Coefficient Alpha values for individual dimensions were high and a reliability coefficient of 0.898 was recorded.

Data analysis and reliability of the interview data

The quantitative data collected from the respondents were subjected to the Statistical Packages for Social Scientists (SPSS) version 12 for data capturing, presentation, analysis and interpretation. The NVivo software (version 10) was used for organizing, analysing and sharing data for the qualitative aspect of the study. The themes gleaned from the in-depth interviews were categorized into nodes or themes. Aligned to the method suggested by Cresswell (2003), analysis of the qualitative data was conducted through transcribing each interview the underlying themes for each question was determined and NVivo analysed through the NVIVO. Several strategies that ensured reliability of data were employed. The Babbie and Mouton (2001) method was applied to achieve credibility, transferability, dependability and conformability. Thus, reliability was achieved by triangulation, debriefing and purposive sampling. A triangulation method is typically a strategy (test) for improving reliability of research or evaluation of findings (Golafshami, 2003, p. 7). Qualitative research findings in this study were triangulated by the structured interviews directed to the research participants that were from

junior and middle levels of management. Furthermore, qualitative findings were also triangulated by different questions posed to different research participants who were at different leadership levels and were responsible to different stakeholders.

Research findings

This section presents the research findings emanating from the themes gleaned from the NVivo categorisation of data process. These qualitative findings are compared and contrasted with the empirical findings emanating from the structured questionnaire. The study found that very few research participants (with the total coverage of 0.95%) had any knowledge of policies and procedures that are related to the QoWL at university “A”. The majority of the respondents who had knowledge also revealed that (total coverage 3.79%) these policies were not enforced, not followed by departments, applied inconsistently and take time to be implemented. There were very few research participants (with the total coverage of 0.73%) who had no knowledge of such policies. One of them suggested that there was a need for performance management policies to appraise and motivate the staff members. The study findings revealed that organizational factors positively affect employee’s job satisfaction and QoWL most, at the university “A”, with the highest total coverage of 18.81%. These factors include research incentives, study grants and leave, and research recognition. This has been contrary to the data gleaned from the empirical findings, where it was found that 42% of the research participants did not agree that employees were satisfied with career opportunities available to them. Only 35% shared the view that employees were satisfied with career opportunities. The research participants also mentioned intrinsic and extrinsic motivation factors, supportive management, opportunities to work with external stakeholders, benchmarking, chances to go overseas and supportive management styles for projects and networking within departments. This finding is congruent with the quantitative finding: almost half (48%) of the research participants disagreed with the statement that the university provides employees with what they need to do their job effectively. Only a third (31%) agreed with this statement. There were a number of the respondents who mentioned factors that positively affect an employee’s job satisfaction and QoWL in their personal capacities (8.35% total coverage). These respondents cited affordable/well priced food sold at the staff shop, location of the institution, compliments from students and study grants. Very few respondents (1.36% total coverage) mentioned any impact[s] on their job satisfaction and QoWL at departmental level. Those respondents who did, mentioned departmental career days with companies as being a factor with a positive influence.

Considering things that negatively affecting employee’s satisfaction within their QoWL, the study findings have shown that again the highest coverage (20.65%) is organisational factors followed by departmental and individual factors. The research participants mentioned poor organisational culture, grade inconsistencies, systems improperly integrated, lack of professionalism, poor hygiene of offices, lack of communication within departments and low remuneration compared with other institutions. The unhygienic conditions in this university has been corroborated by 47% of the research participants who did not consider that employees’ health and safety is a high priority where they work. Only 28% agreed with the statement and 25% were undecided. The qualitative findings agreed with the statement that there is good support from management, however in the empirical findings 50% of the respondents said that employees were often unable to find the information they need to perform their functions. Only 32% agreed with this statement about management support. The respondents mentioned some of the types of support that were lacking: poor and slow Information Technology (IT) system, student politics, bureaucracy, reliance on rumours feedback, high resignation rate, and the feeling that organisational culture in the institution does not encourage open debates on issues. There was a considerable difference between departmental factors (4.38% total coverage) as compared to organisational factors (20.65%). The research participants mentioned a few factors with a negative impact: unfair allocation of duties, HODs being overloaded as they perform a lot of administrative duties, lack of job descriptions and divisions. The empirical findings revealed that 52% of the research participants disagreed with the statement that the workload placed on them is more than they can handle. This finding is contrary to the qualitative finding. Only 34% believed that they were overloaded, which ties in with the qualitative findings (as shown) above.

Almost all the research participants believed that employee’s satisfaction with the QoWL does affect performance at work with the highest total coverage of 11.70%. The research participants highlighted the negative factors: if the set standards are not met, if systems are slow and if employees do not submit work on time, planning without execution, loss of quality staff, restricted budgets, limited office space and resources.

This statement was supported by the highest percentage (46%) of the research participants who did not agree with the statement that the university provides adequate facilities to its staff members. Only 34% had positive views. Only one research participants who cited a departmental affect (0.46% total coverage): when roles are not clearly defined. Also only one respondent mentioned that stress affects the QoWL in university "A".

Discussion of the research findings

The primary objective of this study was to investigate factors influencing QoWL of employees at University "A". It was evident from the study that factors influencing QoWL at University "A" were organisational rather than departmental or individual. What was also noteworthy about this study was that almost all the research participants had the knowledge of the policies influencing the QoWL. Similar participants claimed that such policies were not enforced or inconsistently applied. This finding is parallel with Davis et al. (2014) that employees' inputs on policies are discarded by management in HEIs. The dissatisfaction of the research participants with career opportunities is not in line with a number of researchers. For instance, Piennar and Bester, 2009; Chitakornkinsil, 2009, p. 215; Johnsund and Rosser, 1999; Rethinam and Ismail (2008, p. 64). These authorities mention that career opportunities through learning and development have a positive impact on job satisfaction and the QoWL. This finding also violates the main purpose of the Skills Development Act, which is that of improving the skills of the South African workforce as well as in section 2(1) (a) to improve the quality of life of the South African workforce. The majority of the research participants were dissatisfied with career opportunities. This result is not in agreement with Parsa (2014, p. 109) that success of any organisation depends on career advancement. The contradiction between qualitative and empirical findings on the support provided by the university management is echoed by Sukram and Hoskins (2012, p. 96) that employees who receive good service from their managers provide good service. Furthermore, this finding on the management support of the subordinates concurs with Davis *et al.* (2014, p. 1)'s opinion that managers create their own systems outside bureaucracy and provide support to peers and subordinates. The grade inconsistencies and low compensation, as compared to other institutions, as negatively influencing job satisfaction and the QoWL contradicts Rethinam and Ismail (2008, p. 59); South African Presidency Report (2007, p. 1001-102). These researchers claim that QoWL supports and promotes satisfaction by providing employees with rewards and incentives. The majority of the research participants felt that they work in unhygienic conditions: this situation contravenes section 108 of the RSA Constitution of 1996; section 8 of the OHSA and section 7 of the BCEA. These prescripts state that employees must work in a safe working environment that is risk-free to their health and safety. This phenomenon is supported by the findings of Kruger (2012, p. 20) that in an academic hospital supervisors were not being supportive enough when it came to the health and safety of employees. Poor organisational culture as a factor that negatively affects QoWL of employees, is confirmed by Santiago and Carvalho (2004, p. 248); and by Weinberg and Graham-Smith (2012, p. 68) who state that managerialism in HEIs alters the institutional culture. The notion that HODs are overloaded is supported by Flyd (2012) and Smith (2002) who state that HODs have an increasing amount of management and bureaucratic work. While there were contrary views on various variables presented above, the perspectives of other researchers were not clearly linked to this study as they were not mainly conducted in higher education institutions. In certain areas where there was an alignment, an argument was more on academic staff members than other categories such as administration and administrative-support.

CONCLUSION AND RECOMMENDATIONS

This study observed that university "A" has policies that are related to the QoWL. However, these policies re applied incorrectly, inconsistently and not enforced by the university leaders. This emanates from the fact that university managers are not trained or willing to be capacitated on policy development, analysis, application/implementation and review in this particular institution. This implies that the university managers are not mainstreamed during policy planning and formulation processes: these processes should include consultation with their practical inputs being taken into consideration. It can be concluded from the findings of this study that career opportunities or advancement has been limited in this university which has had detrimental effect on the QoWL. This reveals that university "A" does not have career plans for its employees, this situation negatively impacts on their job satisfaction and lowers their QoWL. As the old dictum says "*change starts from above*", this study revealed different feelings regarding the support that managers give to their subordinates. Lack of support diminishes their high QoWL. Finally, this study concludes that the poor organisational culture was exacerbated

by the absence of compensation strategies (pecuniary and non-pecuniary rewards), by grade inconsistencies and by HODs being overloaded. All these factors degrade the QoWL within this university. It is noted that most of the detrimental effects on QoWL identified by the study findings have an organisational origin. These factors contravene the prescripts which are intended to promote a high QoWL amongst employees in institutions of higher learning. In conclusion, the study findings have discovered that university "A" has not yet adapted to the philosophy of the NPM.

For the university employees to have a high QoWL, employees at all levels should be mainstreamed on the formulation of new policies in order to have ownership of them. Furthermore, since there are existing policies that have an impact on the QoWL, then employees at all employment levels should be sensitised to these, while leaders should enforce and consistently apply them. The university leaders should review training and development policies which would enable their staff members and managers to design their training diary for the forthcoming years, informed by such policies. This would also assist the university leaders to conduct the skills audit, so that deficiencies could be identified and addressed through their PDPs. This would also assist the university to offer relevant trainings that respond to the needs of the university, faculty/department and individual employees. This would increase the job satisfaction, performance and QoWL of employees. The QoWL amongst employees could also be increased, if managers could be trained on how to apply the private sector principles of managerialism: this would assist the university leaders to support their subordinates and peers. A major limitation of the study was that it was conducted with ordinary staff members, and junior to middle managers, without the views of the senior university leaders regarding factors impacting on the QoWL being found. The scantiness of the literature on the views of administrative staff members of the QoWL in HEIs, was the major limitation of the study. To gain such knowledge in a further study would necessitate in-depth interviews and focussed groups targeting senior management positions and other university stakeholders, including the trade unions. This sort of study should be conducted in HEIs with the aim of triangulating the findings of this study.

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EXPLORING UNIVERSITY BUSINESS STUDENTS' UNDERSTANDING OF CLIMATE CHANGE

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ABSTRACT

Our environment is being faced with several devastating challenges which have adverse effects on it and the general ecological system. Climate change has been identified as one of those issues that constitute the greatest threat to human health in the 21st Century as a result of human activities. Certain industries are responsible for emission of dangerous substances into the environment through their business or industrial activities which has led to climate change and other related issues we are experiencing today. In spite of this fact, several reports have demonstrated that the understanding and knowledge of many adolescents about climate change is quite deficient. The purpose of this study therefore was to specifically examine the understanding of University business students about climate change. A total number of 244 male and female business students from a South African University were selected for this study. Data was collected using a 25-item assessment test questionnaire adapted from other researchers. Data analysis was through SPSS software using descriptive statistics. The result showed that majority of the students demonstrated a high level of understanding about climate change issues. For instance, results about causes of climate change revealed that 90% and 63.0% of students correctly reported that climate change has the ability to cause health problems and plants and animals extinction respectively. Though a higher proportion of the students sampled were knowledgeable regarding climate change. We suggest that students could be trained and educated in order to acquire additional knowledge of pressing environmental issues such as climate change early in life. This will go a long way to make them environmentally responsible future leaders and business owners since they are likely to carry the knowledge acquired now into adulthood, use it in decision making and ultimately pass it on to future generations.

Keywords: Business, climate change, students, understanding, university

INTRODUCTION

Before the industrial revolution, environmental disasters were mainly due to natural causes such as erupting volcanoes, earthquakes, typhoons and a host of others which were mostly due to natural causes beyond human control. Nowadays, environmental problems are more of human origin than natural. Climate change is one of such problems and it is caused primarily by industrial activities e.g. combustion of fossil fuels such as coal (World Health Organisation [WHO], 2014). These industrial activities have led to constant and continuous emission of sufficient quantities of carbon dioxide and other greenhouse gases into the environment (Houghton et al., 1996). The South African Department of National Treasury (2010) reported that South Africa is one of the biggest emitters of greenhouse gases in the world which has resulted in climate change. Infact, the 12th highest carbon dioxide emitter (CO₂) in the world (Urban Earth, 2012). All these are having serious adverse effects on human health, plant and animal species. Several reports have noted that of all the many environmental issues facing us, climate change is the biggest problem which has caused a great threat to human health in the 21st Century (Costello et al., 2009). The World Health Organisation (WHO) reported that over 150,000 deaths are estimated to occur annually as a result of climate changes. Moreover, between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, apart from malnutrition, malaria, diarrhoea and heat stress (WHO, 2014). In the case of plants and animals, it is also important to note that many species are already going into extinction as a result of climate change since the environment is no longer conducive for their survival or existence (Intergovernmental Panel on Climate Change [IPCC] 2015; Peng et al., 2004; Reading, 2007, p 125).

In the face of all these challenging environmental issues facing us and our environment, several studies have noted that many people across the world especially in developing countries lack awareness and knowledge about what is going on in around them (Ochieng, & Koske, 2013, Pugliese and Ray, 2009). This is not limited to only one segment or strata of the society but to all. Pugliese and Ray (2009) reported that about 40% of the world population have never heard about climate change and the threat it poses to them. Developing countries are reported to be the most vulnerable to the effects of climate change compared to the developed countries. Yet people in the developed countries are more likely to see climate change as a serious problem than those in developing countries (Ochieng, & Koske, 2013). For instance, it is averred that people in Europe and America are the most likely to be aware of climate change than the others. Furthermore, out of the remaining 60% that are aware, these two regions that is Europe and America happen to carry the greatest percentage (Pugliese and Ray, 2009). The authors went further to report that lower level of awareness is apparent in the Middle East/North Africa, Asia, and sub-Saharan Africa regions (ibid.). African countries such as Kenya, Nigeria and South Africa are reported to have lower levels of awareness compared to others with regards to climate change (Pugliese and Ray, 2009). Particularly about South Africa, it is reported in a research report that many people have heard about climate change and its existence, but their understanding of the science behind is deficient (Neville, Godfrey, Rutledge & Ramchurn, 2010)

We believe that this low level of awareness could be due to lack or limited awareness campaigns or sensitization. In many African countries, awareness about other social phenomenon such as conflict, poverty, corruption and food security are considered as priorities compared to environmental issues such as climate change (Ochieng, & Koske, 2013). Specifically, with regards to young people, several studies have reported that students displayed lack or low level of knowledge and awareness about environmental issues generally. (Hausbeck, Milbrath, and Enright 1992; Toili 2007). For instance, a study conducted among Dutch students revealed that students' "... knowledge about environmental problems was fragmentary and often incorrect ..." (Kuhlemeier, Van Den Bergh, & Lagerweij, 1999, p. 4). Information about climate change is very important for these students now that they are still young. This is because they would eventually be responsible for taking care of this environment. Therefore if they are not adequately prepared for that task now, then there is no hope for the future of our environment and there is every possibility that the state of things will become worse in the nearest future. This fact is clearly stated in a study conducted by Costello et al., 2009 where it was reported that:

Effects of climate change on health will affect most populations in the next decades and put the lives and wellbeing of billions of people at increased risk. During this century, earth's average surface temperature rises are likely to exceed the safe threshold of 2°C above preindustrial average temperature. (p. 1693).

However, if they are well informed about these issues now, then the knowledge and information imparted to them should provide them with necessary skills and knowledge to tackle these challenges properly when the time comes.

Other than exploring students' level of understanding about climate change, this study like other studies also investigated their sources of information. The sources of environmental information according to literature have varied from people to the media, in the form of both print and electronic. Also, these sources have varied from country to country. Generally, the most prevalent source of information among students has been television. For instance in Malaysia students indicated that television (84%) was their main source of information. This was followed by the internet (6%), newspapers (5%), radio (4%) and textbooks (1%) (Said, Yahaya, & Ahmadun, 2007). In New York students identified their sources as electronic media [television, radio, internet] (44%), print media [newspaper and magazines] (19%), school (12%), friends and family (8%) (Hausbeck et al., 1992). Also in Iran a majority of students (43.6%) indicated that mass media particularly the radio and television was their main source. This was followed by newspapers and magazines (19.3%). To a lesser extent, teachers/school (16.4%); friends (9.8%); other sources (10.9%) were also identified as sources of information (Shobeiri & Prahallada, 2007). In the UK students indicated that their major source of information was mostly television including other electronic sources like internet followed by the school and friends (Boyes & Stanisstreet, 2001). In Greece too, television was the source of choice for information about environmental matters (Liarakou et al., 2011). This present study also investigated on students' sources of information about climate change

In South Africa, the concepts of climate change and global warming appear in the secondary school curriculum at the various grade levels and it is believed that students at this level would have been exposed to

these concepts. Based on this supposition, we then decided to test the understanding of our university students particularly business students about climate change issues. This study only focused on business students because of the general belief that issues like climate change, and other environmental matters are only relevant to people in the science, medical and engineering world. Business students of today will most likely grow up to be owners of various businesses in the future. It is a general belief that the so called business establishments we have today are responsible for emission of dangerous chemicals into the environment through their business or industrial activities. If the owners of the various business organizations existing in the nation today had been provided with the necessary information about the environment when then were young, we might not have been experiencing some of the problems we are facing today. It was therefore important to assess their current level of knowledge and understanding about climate change in order to take steps that would help them become environmentally responsible business leaders in the nearest future.

However, in South Africa, not many studies have been conducted in this area that investigated the level of understanding of students (either secondary or university) about climate change. This study could be considered significant because it focused specifically on university business students and to the best of our knowledge, no studies were found that explored the level of understanding of university business students. It is in the light of this that this research study decided to focus on understanding of university business students about climate change. Therefore, assessing their level of understanding about these issues will help us to really know if they really understand or not. The significance of this is that knowing what these students understand or do not understand about climate change issues may provide us some insights into and guidance for instructional planning and classroom teaching centred on these concepts.

METHODS

Participants

Participants for this study were 244 male and female business students from a South African University. The participants were selected from different business related departments in the Faculty of Management Science of the same university.

Instruments and Procedures

Data were collected by means of a questionnaire made up of three parts. The first part requested participants to provide their demographic data such as gender and age. The second part of the survey comprised 20 - items Yes or No scale on climate change issues which was further divided into three namely: General information about climate change, causes of climate change and effects of climate change. The third part was an open-ended question comprising ten items and we requested that students should indicate their sources of information about climate change. The questionnaire used in the second part was a 25 - item scale adapted from other questionnaires (e.g. Whitmarsh, 2009). Three hundred and fifty hundred questionnaires were administered to students. The completed questionnaires were collected a week later.

Data Analysis

Of the 350 questionnaires distributed to participants, 244 (70%) copies were returned. In determining students' level of understanding of about climate change, descriptive statistics were employed. All analyses in this study were computed using IBM's SPSS © version 19.

RESULTS

Biographical Data

The mean age of the students was 16.1±1.75 years. Most of the students were males (55.3%) and in their second year (38.6%) of study. A more detailed biographical data of the respondents is outlined in Table 1

Table 1: Biographical data of students (N = 244)

	n	%
Gender		
Male	135	55.3
Female	109	44.7
Age in years		
16-20	82	33.9
21-25	147	60.7
26-30	12	5.0
31-35	1	0.4
Academic level		
1st Year	39	16.5
2nd Year	91	38.6
3 rd Year	90	38.1
Btech	14	5.9
Postgraduate	2	0.8

Findings about university business understanding of climate change

To determine students' level of understanding of about climate change, we used descriptive statistics to perform this task. Using percentages, an analysis of each item was done to determine the level of understanding of students about causes of climate change. The survey was divided into three sections namely: General information about climate change; causes of climate change and effects of climate. From each section, only few of the items are presented on the tables.

Result of general information about climate change

The results of students understanding of general information about climate change is represented in Table 2. Majority of the students demonstrated high level of understanding about general information about climate change. For instance, 94.7% and 73% of students reported that they have heard about climate change and that they believe that climate is really happening respectively. Also, 72.8% and 52.9% of students correctly responded that Climate change is not beneficial to us and that renewable resources are better than fossil fuels in generating electricity respectively. Lastly, 67.9% and 72.8% of students reported that the climate of South Africa gradually gets warmer every year and that as business students; they are concerned about climate change like science and engineering students respectively.

Table 2: General information about climate change

S/N	Items	Yes	%	No	%
1	Have you ever heard about climate change before?	231	94.7	13	5.3
2	I don't believe that climate change is really happening, it is just an exaggeration	65	27.0	176	73.0
3	Climate change is beneficial to us	66	27.2	177	72.8
4	Fossil fuels such as coal is better than renewable resources in generating electricity	113	47.1	127	52.9
5	The climate of South Africa gradually gets warmer every passing year	165	67.9	78	32.1

6	I as a business/management student, climate change does not concern me it's the problem of those in science and engineering	65	27.2	174	72.8
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Results of causes of climate change

The result of students' level of understanding of the causes of climate change is presented in Table 3. Here it was found that majority of the students had good understanding of the causes of climate change. About 84.8% and 66.8% of students correctly reported that Pollution from industries and human activities such as burning of fossil fuels are major causes of climate change respectively. Similarly, 64.3% and 56.7% of students correctly responded that Carbon dioxide has highest impact on global warming which leads to climate change and leaving lights on unnecessarily can contribute to climate change respectively.

Table 3: Causes of climate change

S/N	Items	Yes	%	No	%
1	Pollution from industries is the main cause of climate change	207	84.8	37	15.2
2	Human activities such as burning of fossil fuels does not result in climate change	80	33.2	161	66.8
3	Carbon dioxide is a gas with the highest impact on global warming which leads to climate change?	155	64.3	86	35.7
4	Leaving the lights or electricity on unnecessarily can contribute to climate change	136	56.7	104	43.3

Result of effect of climate change

The finding of students' level of understanding of the effects of climate change is represented in Table 4. Here it was revealed that a large number of the students had good understanding of the effects of climate change. About 90.0% and 62.8% of students correctly reported that climate change has the ability of resulting in human health problems and it can lead to plants and animals extinction respectively. Likewise, 65.1% and 70.5% of students correctly reported that recent floods in some countries were due to climate change and climate change can result in loss of food production respectively

Table 4: Effects of climate change

S/N	Items	Yes	%	No	%
1	Climate change have the ability of causing health problems in human	217	89.7	25	10.3
2	Climate change does not lead to plants and animals extinction	89	37.2	150	62.8
3	Recent floods in some countries are due to climate change	157	65.1	83	34.4
4	Climate change can result in loss of food production	170	70.5	71	29.5

Students' sources of environmental information

Students were asked choose from a list of different sources where they got information about climate change. It is noticeable from Table 4.13 that from all the list of sources the highest percentages of the students chose internet (40.1%) and television (40.1%) to be their sources of information. These were followed by newspaper (38.9%) and radio (34.8%). At the other end, extra-curricular activities (20.5%), parents (17.6%) and Friends

(17.6%) were the least sources of information. A very low percentage of the students responded that they don't have any sources where they got information about climate change

Table 5: Frequencies and percentages of students' sources of information

Sources	Frequencies	Percentages (%)
Internet	98	40.1
Television	98	40.1
Newspaper	95	38.9
Radio	85	34.8
Magazines	72	29.5
School lecture	66	27.0
Books	58	23.8
Extra-curricular activities	50	20.5
Parents	43	17.6
Friends	43	17.6
No source	35	14.3

DISCUSSION

This study sought to explore university business students understanding with regards to climate change using descriptive statistics. The results of the study are discussed and further compared with those reported in literature. The comparison is meant to provide a context as well as a benchmark of sorts against which the results presented in this study may be assessed with regards to what has been reported on other studies around the world.

Firstly, from section one, our results indicated that students are aware and have good understanding of general information about climate change. For instance, majority of the students (94.7%) responded that they have heard about climate change before. However, the findings of Feldman, Nisbet, Leiserowitz & Maibach (2010) reported that only 38% of their participants below 35years have heard about climate change. The fact that almost all (94.7%) our participants have heard about climate change agrees with the supposition made earlier on that these students must have been exposed to the concept of climate change and other related concepts when they were in the secondary schools. Also with regards to the item that read "climate change is not happening it is just an exaggeration", 73.0% of the students responded correctly to the statement that they believe it is happening. This result of 73.0% response falls within the range found by other researchers from other places (Jamelske, Barrett, & Boulter (2013). On the other hand, in a study conducted by Feldman et al 2010, it was reported that a very low percentage of respondents believed that climate change is happening. For every other item in this section except for one item, more students responded correctly than those that responded incorrectly. However other studies conducted somewhere else reported opposite findings (Dal, Ozturk, Alper, Sonmez & Cokelez, 2014; Dove, 1996; Fortner, 2001; Papadimitriou, 2004). Generally, these researchers reported in their studies that the level of understanding or awareness about climate change related issues was low or limited.

In the second section which talks about the causes of climate change, most of the students responded correctly to all items except for only one item where less than half of the students did not get it right. This shows that students have good understanding with regards to the causes of climate change. For example, 66.8% of students responded correctly to the statement that says "climate change is caused by human activities". This result corresponds to and falls within the range of results reported by other researchers. Specifically, the level of understanding of our respondents was found to be higher than those reported by Jamelske, et al., (2013) who found that 59.0% and Feldman et al., (2010) who also found that 47% of their participants responded that climate change is primarily caused by human activities.

Considering the effects of climate change, a significantly higher percentage of the students responded correctly to all the items. This shows that students had a high level of understanding about the effects of climate change. However this result is in contrast with findings from other studies conducted where it was reported that participants understanding and knowledge about environmental issues in general were low, or insufficient (Hausbeck, et al., 1992; Kuhlemeier, et al 1999; Nwankwo & Unachukwu, 2012).

Finally, concerning students' sources of information about climate change, the largest percentage of the students chose internet and television as their sources. This is not surprising as several other studies have always reported television to be students' most important source of information (c.f., Boyes, & Stanisstreet, 2001; Huang & Yore, 2003; Said et al., 2007; Liarakou et al., 2011). However, the result of this study best agrees with a study conducted in Australia where majority of the participating students also identified the internet and television as their most important sources of information about climate change (Nagel, 2004). It was further reported by this author that students described television and the internet as most significant in teaching them about environmental matters (ibid.). With regards to internet, this finding was very interesting because it suggests that students relied on technology to keep up with environmental matters. On the other hand, extra-curricular activities, parents and friends were not found to be useful as sources of information because they were chosen as least sources by students. With regards to parents and friends sources, this result corresponds with that found among Indian and Filipino students (Chapman & Sharma, 2001). A possible reason for parents especially not being useful sources may be education related, that is their parents might be illiterates. In terms of extra-curriculum activities, it could be that the schools do not organise workshops, seminars, excursions and other activities that can inform students about climate change and other environmental issues. Overall, however, these findings suggest that majority of the students exhibited a good understanding of climate change except for two items where their level of understanding was quite low.

RECOMMENDATIONS AND CONCLUSION

Based on the result of this study, a number of recommendations are advanced: Even though the result of the study revealed that a larger percentage of students exhibited high level of understanding about climate change issues, still some of them had a low level of understanding about the issues. In the interest of those that are less informed, there needs to be more education and awareness about climate change and its impact on human beings, the ecosystem and the environment in general. For those who already have good understanding, we suggest there should be a built up on their existing knowledge. This should not be limited to only the group that participated in this study but for every student at all academic levels whether they are already aware of climate change issues or not.

Also, quite unexpectedly, our results indicated that the highest percentage of respondents obtained information about climate change mainly from the internet and television followed by other sources like newspapers, radio, magazines and school lectures and at the other end extra-curricular activities, parents and friends. As shown by the data captured in table 5, other sources such as the internet, television and newspaper were clearly preferred by students above the school lecture contrary to what one expects from university students. Ideally, one would expect that school lectures should be their primary source while other sources would be secondary. It has been noted that even though the media could be a source of information on environmental issues for students, information obtained through the media might be brief, ambiguous, narrow and hence inadequate (Huang and Yore 2003).

Therefore in order to make students properly aware and informed about climate change and other related issues, it is suggested that universities management should consider integrating climate change or environmental education into various academic programs at various institutions. This will give every student an opportunity to learn about climate change and equip them with an in-depth understanding and knowledge of all areas such as causes, effects of climate change and solutions. In achieving this, trained and competent lecturers in these areas could be employed and also provided with professional development programs. This is because lecturers play a big role in making students aware and understanding environmental issues such as climate change.

Furthermore we suggest that, the Directorates for extracurricular activities could try and include in their programmes activities such as workshops, seminars, campaigns, environmental clubs and excursions or field trips. Through these, we believe that students will be provided from time to time with information regarding climate change and other environmental issues. This may serve as a means of augmenting the knowledge acquired within the classroom environment as our result have indicated that only a small percentage (20.5%) of students received information about climate change through extra-curricular activities. As a matter of fact, 14.3% of the students indicated that they do not even have any source of information about climate change. Hence, it is

very important that every means of information possible should be utilized to educate students about the environment and issues.

In conclusion, government and the private sector should invest in sustainable awareness projects involving students at all levels of education. The values acquired in the course of participating in such projects will be helpful in their career in the future and will be carried on to adulthood and later passed on to the next generation. Such awareness will also go a long way to rectify the situation in which parents and friends are not seen as important sources of information about environmental issues, as observed in this study. In this regard, it is suggested that environmental education should not only be limited to young people. The target population should encompass various age groups within all spheres of the society since everyone at one time or the other has to make decisions about the environment, either relating to them or sometimes affecting other people as well (Brennan, 1974).

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INNOVATION, INTERNATIONALIZATION AND KNOWLEDGE EXCHANGE IN GLOBAL HIGH-TECH MERGERS AND ACQUISITIONS

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ABSTRACT

This paper examines a case study and conceptual context of innovating and internationalizing through mergers and acquisitions. The theoretical context and empirical investigation center on an emerging market multinational company expanding internationally and refining its technological competencies through acquiring firms in a range of sizes from a variety of countries, then unifying the acquired firms under a new meta-brand. The pseudonymous LLC, the focus of the case study, acquired over 50 firms within a pivotal decade in the company history and development. The strategic leadership dimension also surfaces through the high interest of the LLC CEO in both internationalization and innovation. The resulting firm now operates in over 100 countries and emphasizes its product and service technologies in accommodating a demanding business clientele. The findings highlight the importance of technology in lines of business, companies and acquisitions not overtly perceived as high-tech, and the results further indicate the value of innovation for international expansion and for the application of a technology-intensive perspective to international M&A.

Keywords: Leadership, technology, knowledge transfer and exchange, innovation, internationalization

INNOVATION, INTERNATIONALIZATION, LEADERSHIP AND KNOWLEDGE MANAGEMENT AND EXCHANGE IN TECHNOLOGY CONTEXTS

The high-tech as well as technology-related sectors possess huge economic and strategic importance in the technology-driven global economy (Almor, Tarba, & Margalit, 2014). The companies in these lines of business have experienced strategic events increasing our understanding of global mergers and acquisitions (M&A), knowledge management and exchange, and leadership trends (Chaudhuri, 2005; Chaudhuri & Tabrizi, 1999). Various forms and degrees of buying and selling of companies have been manifest in consolidations, divestitures and privatizations in recent past and present mergers and acquisitions waves (Alexandridis, Mavrovitis, & Travlos, 2011; Harford, 2005). Throughout the spectrum of international strategic endeavors, top executives have functioned as leaders and key knowledge management agents (Park & Hollinshead, 2011). From acquisitions to alliances to offshoring, the imperative for internationalization has precipitated a wide range of cross-border partnerships and collaborations. Given also the imperative for technological competencies for enhancing competitive advantage, an increasing number of these international transactions and interactions have involved high levels of technology, whether overtly involving firms in the high-tech sector or less obviously involving firms applying high technology to differing products and services in various sectors. The present paper examines instances of technology-related acquisitions in the fifth through seventh merger waves in the worldwide context of the global market for corporate control. The paper then considers the application of lessons from these acquisitions to the emergent analysis of a case study of numerous technology-related acquisitions conducted under the leadership of a CEO of an emerging market multinational company.

GLOBAL HIGH-TECH MERGERS AND ACQUISITIONS

Assorted compelling examples (chronicled in the New York Times Deal Book) illustrate overtly technology-related acquisitions that have occurred. For instance, the social media and PC-related acquisitions and privatizations exhibit the impact of business environmental factors as well as leadership considerations across merger waves. For instance, the acquisitions (or related activity of divestitures and privatizations) implemented by Dell, Google and Facebook in the transition between the sixth (2003-2008) and seventh (starting circa 2014) merger waves facilitate our understanding of the strategic imperatives and leadership pressures confronting multinational high-tech firms in the modern era. For earlier historical perspectives, we refer to the fifth wave (1993-2000), where there was once Digital Computer, Compaq and Hewlett-Packard, there is now only Hewlett-Packard (Compaq acquired DEC in 1998 and H-P acquired Compaq in 2002). H-P made later large acquisitions of Mercury Interactive in 2006 and Autonomy Corporation in 2011, as well as numerous smaller acquisitions in the past three waves, all designed to strengthen the position of the firm as a software services and printing giant. Dell Computer underwent an acquisition spree during 2009-2012 to move increasingly into a software services and development, culminating with the privatization of the firm in collaboration with Silver Lake private equity partnership in 2013.

The rise of the active and aspiring social media companies, themselves now acquirers (e.g. Facebook + Instagram 2011 + Whatsapp 2014 and separately Microsoft + Skype 2011 + Nokia Devices and Services 2013) represents a new form of software as well as hardware expansion and expertise. Moreover, Google also endeavored to enter, and then relatively rapidly exited, the hardware arena, with the acquisition of Motorola Mobility in May 2012 then the divestiture of the same (except for most of the extensive patent portfolio) sold to Lenovo in 2014. Sheth and Sisodia (2002) argue that industries naturally evolve to contain three key competitors, supporting the idea of consolidations occurring toward a convergence of three main firms. The intra-industry combinations of the more recent past waves are reminiscent of the monopolies and oligopolies of the early twentieth century, indicating that the series of acquisition waves has in some sense gone full cycle, from few to many back to relatively few competitors per industry and from prominent robber barons to eminent superstar CEOs. These types of acquisitions have demonstrated the importance of high-tech acquisitions and executive involvement (Graebner, 2004; Graebner, Eisenhardt, & Roundy, 2010), retention (Ranft & Lord, 2000), and acquiring new knowledge and capabilities (Puranam & Srikanth, 2007; Ranft & Lord, 2002).

LESSONS FOR LEADERSHIP IN INTERNATIONAL TECHNOLOGY-RELATED ACQUISITIONS

The present study originates from the premise that technology and innovation-related mergers and acquisitions are associated especially with aspects of CEO leadership style (Park, 2011, 2012). The interconnections of innovation, internationalization, acquisitions and CEO leadership—and the centrality of knowledge management and exchange—have been notable beginning especially in the fifth merger wave and increasing in prominence in the sixth and seventh acquisition waves. The research project investigates the question: what are the influences of leadership style on innovation, internationalization and knowledge transfer outcomes in the high-tech and technology-related acquisitions phenomenon within the most recent past and the still ongoing merger waves? The question has been examined drawing on a case study of innovation and internationalization through mergers and acquisitions, as inspired by the leadership of vision of the CEO of an emerging market multinational company called by the pseudonym LLC (Park, 2015). The further findings of the study will be presented in greater depth in forthcoming presentations and papers. The present results highlight the importance of technology in lines of business, companies and acquisitions not overtly perceived as high-tech. The results have moreover indicated the value of innovation for international expansion and for the application of a technology-intensive perspective to international M&A. The technology-intensive perspective can be further developed with respect to the mechanisms of knowledge management and exchange across the targets and acquiring firms.

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RELATIONAL POLITICAL STRATEGIES IN THE ARABIAN GULF: IMPLICATIONS OF THE INFLUENCE-BASED SYSTEMS OF REWARDS FOR BUSINESS INTERNATIONALIZATION FROM EMERGING ECONOMIES

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ABSTRACT

This paper provides an overview of a present research project in the Arabian Gulf. Our research summary offers examples of the formative concept, presents our research questions and context, and describes our methodology. We also discuss our contributions, implications and future research directions from the research project.

Keywords: Relational political strategy, internationalization, family business, Gulf Cooperation Council

INTRODUCTION

Stemming from familial and social interactions in widespread practice throughout the Arabian Gulf region, relational political strategy (popularly known as “wasta”) occurs at different levels in the business and educational systems as illustrated by the following examples:

- (1) A recruiting committee at a major university has been meeting regularly to review candidates for faculty and teaching fellow positions. In certain instances, candidates have become known to have affiliations with prominent members of the university. In such situations, the applications are more favorably appraised, the offers expedited, and the overall implementation of the positions greatly facilitated. The family-based connections of the favored candidates ensure their speedier placement.
- (2) The admissions office of one of the most highly desired nursery schools receives a phone call with a question about entry. The waiting list has been long, but the director states to the nearby teacher, “The child of that caller will be placed immediately—the parents are connected to a member of our board.”
- (3) In one of the top secondary schools in the area, an election takes place for class president. The announced winner turns out to be different than the child who had been the frontrunner, who had been reported by the classmates to receive the most votes. Several days later the mother of the observed frontrunner child receives a phone call from the tearful class teacher reporting: “I am a religious person and may God forgive me because your child won the election but I was forced on pain of losing my job to announce that the nephew of the chairman of the board had won the election. Please do not tell anyone that I am making this call, or I would lose my job, but I felt I had to let you know because of how hard your child worked and how many votes he in fact received.” The real winner by a large margin is the child of well-educated US professionals with their own strong ties into the region, but not of sufficient heft to outweigh the influence of the family of the child who had been declared the winner.

RELATIONAL POLITICAL STRATEGY (RPS), MULTINATIONAL COMPANIES (MNC) AND FAMILY BUSINESSES

Throughout the world, relational political strategizing occurs to create advantages for the holders of this form of social capital. While the first and second introductory examples may not seem startling as occasional occurrences in almost any country, the frequency of such events has been especially striking in some areas of the world. The Arabian Gulf and related geographic regions in particular have been characterized by the pervasiveness and the acceptance of the phenomenon. This prevalence subverts meritocratic competition and evaluation systems for awards based on objectively assessed criteria. Our research context focuses on the oil-rich countries where the increasingly competitive entry of MNCs into the larger global economy has been countered by the exercise of influence-based systems at home. The expectations engendered by these practices in the home country act against the type of business behavior essential for competing in global markets. Yet value exists in the broad concept of relational political strategizing. The reflexive exercise of meritless preferences can be transformed to the thoughtful application of connections to create purposeful business advantage. In the full paper, we explore how businesses from emerging economies can internationalize using RPS. In addition we more generally examine how RPS helps to create competitive advantage for these firms by leveraging connections within local networks. The networks and capabilities from these local opportunities can be parlayed into overseas associations toward globalization.

Relational political strategy (RPS) as a concept invokes interactions at the societal, organizational and individual levels. RPS can be contrasted with transactional political strategy, wherein firms develop strategies to respond to specific public policy issues only once those issues have arisen. Instead of waiting and reacting, a firm using RPS proactively nurtures long-term relationships at multiple levels either presently or prospectively associated with the salient issues (Luo and Zhao 2012; Hillman and Hitt 1999). With this relationship-based approach to international strategic management, the connections are already firmly in place when concerns occur. For purposes of the present investigation, we take RPS to subsume relationship-building between MNC top management and host country representatives toward obtaining essential resources and influence. In general the political strategizing of a firm forms an important part of its business conduct. In emerging markets, relationships constitute an especially vital component of economic actualization. For MNCs that are family firms (or are doing business with family firms) in these parts of the world, the relationship mandate becomes even more compelling.

RESEARCH SETTING

Specifically, to gain insights into and recommendations for firms doing business in emerging markets in the Arabian Gulf and nearby areas we must study relational political strategy in the form of *wasta*. Put simply, *wasta* denotes influence. More subtly, it connotes favoritism-based systems of reward stemming from family or other forms of interpersonal connection. While *wasta* may be seen as reinforcing a collective unity, it can also undermine individual and national strength and accomplishments. In general in emerging economies, the GDP per capita may be low but the economic growth proceeds rapidly. In contrast, the GCC (Gulf Cooperation Council) members belong to a group of high-income emerging economies, where the per capita GDP has already reached the level of that in most developed economies but where the total GDP has been low albeit rapidly growing. These oil-producing countries are also characterized by especially strong family structures, family businesses and very high levels of dynastic wealth based on successive generations of inheritance without taxes. The omnipresent family factor reinforces the existence and practice of *wasta* drawing on family connections for the benefit of family members and family businesses.

When does *wasta*—that is, favoritism-based systems of rewards—cross the line from helping hand to corrupting influence? The universal regard for the occasional gesture of assistance to family and friends must be balanced against the corruption potential accompanying the widespread use of such assistance.

CONTRIBUTIONS, EMPIRICAL DEVELOPMENT AND RESEARCH IMPLICATIONS

The extremely intensive use of family social capital in *wasta* distinguishes RPS in the Arabian Gulf from RPS in other developing economies. We theorize that family businesses exist in emergent economies as the dominant form of business because they inherently come to the marketplace equipped with the RPS social capital advantage—where a family exists, relationships exist. Examining *wasta* within an RPS framework illuminates whether *wasta* serves as unethical in concept as well as sometimes in practice. It is already known that MNCs using RPS in emergent economies perform better than those that do not, considering the moderating effects of firm reputation and duration of operations (Luo and Zhao 2012). Our investigation aims to understand whether family businesses predominating as the business form in emerging economies (Zahra and Sharma 2004) can by extension also perform better with the judicious implementation of *wasta*. The present investigation also seeks to understand whether and how the use of RPS by family businesses presents an ethical conundrum. When the business is a family one and there are intrinsically interconnections within the extended family on which to draw, when is it unethical, at one extreme, versus imprudent, at the other extreme, to use or not to use these connections?

We are presently developing this topic as a theory paper, to be followed by the empirical rollout of interview and survey-based data collection among firms in the GCC.

The danger exists in the very reward the firms may seek to obtain. Internationalizing the company may ultimately require a diversification of ownership weakening the original proprietorship power. The use of influence can facilitate the expansion and globalization of the firm—but the RPS structure that facilitated the expansion becomes attenuated by the expansion. A major contribution from this research rests in elucidating the mechanisms of RPS *wasta* for the internationalization of family firms in emerging economies. As an implication of the research, we would subsequently need to understand the self-limiting aspect of that benefit for family businesses as such.

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AN EMPIRICAL STUDY OF THE INNOVATION PROCESS IN AN R&D LABORATORY OF AN OIL & GAS COMPANY

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ABSTRACT

The objective of this paper is to study the process innovation in oil and gas firms with the aim of enhance performance. We reach this goal through a case study analysis of a Brazilian multinational Oil and Gas company R&D laboratory that is recognized as successful to innovate. This study analyses the innovation process by investigating the strategic choices of process innovation (regarding both internal factors and strategic alliances) and the appropriability of innovation outcomes regime. In conclusion, we propose a framework relating the strategic choices and appropriability regime adequate to Oil and Gas firms with similar overall strategy.

Keywords: Process innovation; innovation strategy; appropriability; strategic alliances; oil and gas

INTRODUCION

Since Schumpeter (1934), innovation has been recognized by several authors as a solution to improve firm performance (Deeds & Decarolis, 1999; Faems, Van Looy & Debackere, 2005), or a way to ensure survival in a globalized world, strongly competitive and with high level of uncertainties (Teece, 2007). However, due to the increasing complexity and diversity of technologies, sometimes it becomes impossible to maintain high performance in innovation operating isolated.

Thus, to compete in the technological frontier, besides investing in internal R&D, it is critical to search for external resources to ensure competitive advantage (Chesbrough, 2003). In this scenery, some companies achieve greater success in their efforts to innovate than others, both internally or through alliances (Baum, Cowan & Jonard, 2014; Hall & Bagchi-Sen, 2007). The success in obtaining innovation is even a bigger challenge to technology-based firms (Belderbos, Faems, Leten & Van Looy, 2010). Nevertheless, being innovative do not guarantees that the firm will profit from innovation (Teece, 1986). Therefore, firms need to adopt successful appropriation strategies (Cohen & Walsh, 2001).

Several researchers have been studying the strategic choices adopted by firms that intend to innovate. These strategies involve decisions about choosing between radical and incremental innovation; creative destruction and learning-by-doing; exploration and exploitation; internal and open innovation (Cheng & Huizingh, 2014; Du, Leten & Vanhaverbeke, 2014; Laursen & Salter, 2006).

Product and marketing innovation have been received more attention than process innovation. However, process innovation plays an important role to enhance productivity (Rochina-Barrachina, Mañez & Sanchis-Llopis, 2010), and can bring competitive advantage, mainly in an intensive capital investment industry. This article seeks to contribute filling this gap through a case study research of an R&D laboratory of a Brazilian Oil and Gas company operating in the technology frontier with proven success, answering the following question: How can a firm or a business area achieve excellent process innovation performance through internal activities and R&D alliances and what strategies they should adopt to appropriate the benefits of innovation?

Answering this question, we aim to bring lessons for companies that operate in a similar way. The choice of an R&D lab as unity of analysis is supported by Chesbrough, Vanhaverbeke & West (2006), which stated that "the sub firm level of analysis is particularly salient in understanding the sources of innovation."

THEORETICAL REFERENCES

Process innovation

According to OECD's Oslo Manual:

"technological process innovation is the adoption of technologically new or significantly improved production methods, including methods of product delivery. These methods may involve changes in equipment, or production organization, or a combination of these changes, and may be derived from the use of new knowledge. The methods may be intended to produce or deliver technologically new or improved products, which cannot be produced or delivered using conventional production methods, or essentially to increase the production or delivery efficiency of existing products". (OECD, 2005, p. 32).

Tomlinson (2010) proposes that process innovation is new equipment/technology and input material introduction, organizational changes and improvements in the production process. The study of process innovation is relevant because it requires different management and commercialization strategies than product innovation (Maine, Lubik & Garnsey, 2012). They concluded that alliance-building capabilities, mainly with suppliers (Hagedoorn, 1993), and experimentation are more important for process than product innovation output. To succeed in process innovation, firms have to invest in R&D (Tomlinson, 2010), exploit radical and generic nature of their technology (Maine et al., 2012).

Innovation strategy

Firms intending to innovate should make some strategic choices. Radical vs. incremental innovation, learning-by-doing vs. creative destruction, exploration vs. exploitation, flexibility vs. well-defined objective (Faems et al., 2005) and internal vs. open innovation (Cheng & Huizingh, 2014; Du et al., 2014; Laursen & Salter, 2006) are some of the choices highlighted by literature.

Dewar and Dutton (1986) categorized innovation as incremental when introduced into the product, process etc steadily and gradually, without radical changes. Radical innovation, on the other hand, happens when there is a paradigm change and promotes, through a technological evolution, the creation of a new set of attributes initially not appreciated by current customers, but that enable entry into new markets, acquiring new customers and new applications.

Learning-by-doing (Arrow, 1962) may drive process innovation through a trial and error dynamics, in continuous improvement (Bogers, 2009). On the other hand, creative destruction is the concept of destroying the old technology by creating a new superior one (Schumpeter, 1934).

According to March (1991), exploration of new possibilities occurs by "search, variation, risk taking, experimentation, play, flexibility, discovery, innovation". Exploitation of old successes is "refinement, choice, production, efficiency, selection, implementation, execution". The firm should balance both because exploitation has better financial return in the short term, but the absence of exploration can compromise firm survival in the long term (Belderbos et al., 2010; March, 1991)

Another important choice for the innovating firm is between flexibility (Ghemawat, 1991 *apud* Faems et al. 2005), that allow firms to produce innovation and keep them as options opened; and innovate following an well-defined objective. Furthermore, firms can innovate with own resources, external resources or a mix of both. Chesbrough (2003) introduced the concept of open innovation as "the use of internal and external flows of knowledge to accelerate internal innovation and expand the markets for external use of innovation, respectively". This concept claims that it's possible to develop and expand markets of innovation through paths, ideas or

resources, that are not internal to the organizations, collaborating with the performance, as many subsequent empirical studies pointed (Cheng & Huizingh, 2014; Du et al., 2014; Martinez, Lazzarotti, Manzini & Garcia, 2014). Open innovation can be addressed through strategic alliances.

Alliances are defined as voluntary arrangements between organizations involving exchange, division or co-development of products, technologies or services (Gulati, 1998). This arrangement can be made between the company and various stakeholders such as customers, suppliers, competitors, universities, government, research institutes or several of them at the same time. Several authors (Belderbos, Carree & Lokshin, 2006; Seyfettinoglu & Tasdogan, 2014) studied these various configurations empirically. Cohen & Levinthal (1990) highlighted that success of partnerships is a function of the partners' absorptive capacity, which is "the ability of the firm to recognize the value of new external knowledge, assimilate it and apply it for commercial purposes.". The authors positively relate absorptive capacity to internal R&D investments.

Appropriability of innovation benefits

Appropriability mechanisms are the ways a firm protect innovation from imitation and ensure that it will earn an appropriate share of the rent generated by it (Cohen & Walsh, 2001), that in other ways could go to imitators, suppliers, clients etc (Teece, 1986). Appropriation regime is even more important in strategic alliances that raises misappropriation risks. The higher the risk of misappropriation, the more hierarchical is the alliance governance (Gulati & Singh, 1998) and higher the coordination costs.

According to Hurmelinna-Laukkanen & Puumalainen (2007), there are five types of appropriation mechanisms that compound the firm's appropriability regime: i) nature of knowledge - codified and tacit; ii) institutional protection - IPRs (intellectual property regimes), contracts and labor legislation; iii) human resources management - communication, (im)mobility; iv) practical/technical means - passwords, secrecy, access restriction etc; and v) lead time - market entry, continuous development etc.

Each appropriability regimes may achieve different results depending on the strategical objectives of the firm (Hurmelinna-Laukkanen & Puumalainen, 2007). If the company has short term goals, it should use lead-time and IPRs. If it has long term goals, it should use HRM and IPRs. For an strategy of construction of barriers to competitors, it should use tacit knowledge and practical/technical means. According to Revilla and Fernández (2012), the use of informal mechanisms of appropriation and protection of innovation (based on tacit knowledge and confidentiality) favors large companies.

In strategic alliances there is a paradox between knowledge sharing and protection, as shared knowledge can be used both for cooperation and for competition by the same company. A perceived strong appropriability regime has a positive effect on innovation output (incremental or radical) in alliances with competitors (Ritala & Hurmelinna-Laukkanen, 2013). Also, exploitation alliances have a positive relationship with potential rent generation (long term return), but a negative relationship with rent appropriation (Durand, Bruyaka, & Mangematin, 2008), corroborating that the risk of misappropriation can drain innovator profits.

RESEARCH METHOD

An R&D lab of a multinational Oil and Gas company was chosen due to its success in innovation performance. It was considered as representative variable of this success the number of patents developed, which is a proxy frequently applied to represent the innovation performance construct (Baba, Shichijo & Sedita, 2009; Kim, Park & Lee, 2014). The lab is involved in obtaining over 50 patents during the last 20 years. In addition, it has a continuous process of introducing innovations in the company.

The data were obtained through three visits to the laboratory and in-depth interviews with three researchers, totaling 180 minutes. Documental research was also carried out, which consisted in the access of the company's homepage, internal documents and INPI's (National Institute of Intellectual Property) patent database. The research methodology used was case study analysis, which is appointed by Yin (2014) as ideal when you want to answer "how" questions in a contemporary phenomenon.

RESULTS AND DISCUSSION

The mission of the studied laboratory is to create solutions to prevent obstruction of pipelines that transport oil from production fields located in deep-water to the storage and transport units. These solutions vary due to the characteristics of the produced oil, which requires a great deal of innovation. Among the more than 50 developed and patented technologies, we can mention as an example the Nitrogen Generator System (SGN), which is a thermo-chemical process for the dewaxing of oil export pipelines.

Below, we introduce the findings divided by section and figure 1 summarizes the findings in a proposed model. The thick arrows represent intense or strategically usage of strategies/appropriability mechanisms, and thin arrows represents less intense or not priority usage.

Incremental vs. radical innovation

We observed both incremental and radical innovation occurring. As you can see in the following speech, new ideas that bring radical innovation usually emerge:

"Sometimes you have an idea, you see a benefit to the company ... if the staff of the operational area feel that your idea is a benefit, you fit it in the technological challenges of the company."

However, incremental innovation is more common, what is expected when you deal with process innovation. Next, we can attest the importance of this type of innovation.

"You have an innovation, a patent already exists and you do a branch of it ... if I develop I'll solve another problem."

Flexibility vs. well-defined objective

The company privileges the generation of innovation driven by well-defined objectives. There is a committee that defines the projects the company will work on, and the innovation efforts are directed to attend these previously determined goals.

"We have a so-called technological organizational committee...in this committee is defined the design lines that we have to follow to meet the great challenges of the company ... throughout the project innovations appear"

You can find flexibility of the hierarchical structure, working as matrix for some projects, in order to facilitate the emergency of innovation. Nevertheless, this flexibility is always to attend the well-defined objectives. It is not common to create innovations as options to the future.

"The matrix structure helps a lot that ... in some projects, you forget the formal structure to make it happen fluidly, managers should have flexibility ... management sponsorship."

Learning-by-doing vs. creative destruction

We can find both concepts, learning-by-doing and creative destruction. The company was pioneer in deep-water exploration, for example, and the lab, to solve new types of problems, had to create brand new innovations, superior to the old ones. This kind of solutions are also radical innovation. The following part of the interview exemplifies it:

"It (the company) not only has solutions to problems worldwide as it has some problems that it pioneered ... for example, dewaxing submarine pipeline in deep-water. There wasn't this kind of problem, we open this border... pioneering even in the problems, not only in the solutions."

We could also testify the learning-by-doing process by the next speech:

"In fact innovation and the patent is a result of a research project or even a scientific technical assistance ... to solve an emergency problem."

Internal R&D vs. strategic alliances

The company invest in internal R&D as the main strategy. It is considered strategic to the whole industry.

"Every dollar you spend in the research center turns to \$100... is a feeling that you really win. Making technology is an investment."

"All technological based firm, if it has no proprietary technology in at least some segment, it suffers, it succumbs to other (companies) more robust."

Nevertheless, we notice alliances with suppliers, rivals, universities, research institutes and other companies. Internal R&D favors good innovation performance through alliances because it raises the absorptive capacity. Alliances with universities and research institutes usually happen when the company internally does not have the expertise to develop the innovation and is typical of radical innovation (Baba et al., 2009). It is exemplified below:

"COPPE / UFRJ has knowledge about heat transfer. Therefore, we made a contract with the institution to build a simulator that provides the temperature that SGN will reach the pipeline. It was fostered by ANP (National Petroleum Agency)."

The cooperation with rivals is mainly to share resources and costs. There is a major concern with misappropriation and, for that reason, there are complex legal mechanisms to protect the innovation. These alliances are generally joint ventures.

"Generally JVs between two oil companies, they seek to collaborate with that theme, without necessarily generating a patent ... for example, our company has a waxing problem in production risers in deep-water, a rival company also has (the same problem)... they identify it as a common problem of the oil industry."

"We have a common problem; we make a technological cooperation agreement where companies exhibit what they have on that particular subject and creates the scope of a joint project. The goal is the final solution ... each company goes to one side and from the final solution, both (companies) will benefit from the result that each have developed ...it is shared, patented together."

We could find collaboration with suppliers that corroborates with the affirmative that this kind of alliance is the most common in process innovation.

"In such cases there is a nondisclosure agreement...it (the product) will leave the industrial installation (of the supplier) with the name (of the focal company)...is called provision of chemical service"

"Our company worked hard to build offshore remote units, you don't have people living at the platform, only commands. Then we counted on IT institutions."

It is also notable that there are links with other kind of companies. We could find a patent development between the company studied and a mining firm:

"This company (that shared the patent with the focal company) certainly did all the development...somehow participated in the process...made a technological cooperation that gave a benefit for both companies in their area (mining and oil)."

They also license mature patented innovations to oil and gas service providers to project Brazilian technology abroad. For that, the service providers pay royalties.

"SGN is licensed for at least a three Brazilian institutions ... to project this technology abroad, they are operating outside Brazil ... service providers in oil and gas...an oil company out of the country has a similar problem and it hires a company that provides clearance service ... the institution being benefited pays only when it uses technology (royalty)."

Appropriability regime

It is noteworthy the concern with the appropriation of innovation rents. The lab and the firm as a whole uses some types of appropriability mechanisms. As observed in the company's mission, vision and other documents analyzed, the firm studied adopts long-term strategies, as stated by the company's vision:

"(Until 2030)...being one of the five biggest and integrated energy companies of the world"

By the interviews, we could apprehend that they also seeks to construct barriers against rivals. The adoption of IPRs, tacit knowledge and HRM as appropriation mechanisms are coherent with the overall strategies adopted. These mechanisms are also perceived as strong by the interviewees. That positively relates with innovation performance. Below, we have some evidences of the appropriability mechanisms used.

"All that can be spoken is protocolled ...you have a contract...sometimes involves more than two or three institutions...involves companies in the same industry, universities or research centers." (IPRs)

"Every company uses this way to protect (patent) ... no other company can use my idea without paying royalties...it's a global thing, common, much common" (IPRs)

"The guy has a chemical product and doesn't want to say what product is that ... there are ways to publish a patent without giving so much information ... some details that are essential to produce that product, you does not report...that is really common, every company does it. " (Tacit knowledge)

"It's a way to hold this competence in the company ... granting bonuses to some employees. This position of consultant to be able to stay with a comfortable salary to remain in the company ... in the 90's we had a big evasion of professionals because the company was practicing a lower salary than the competitors." (HRM)

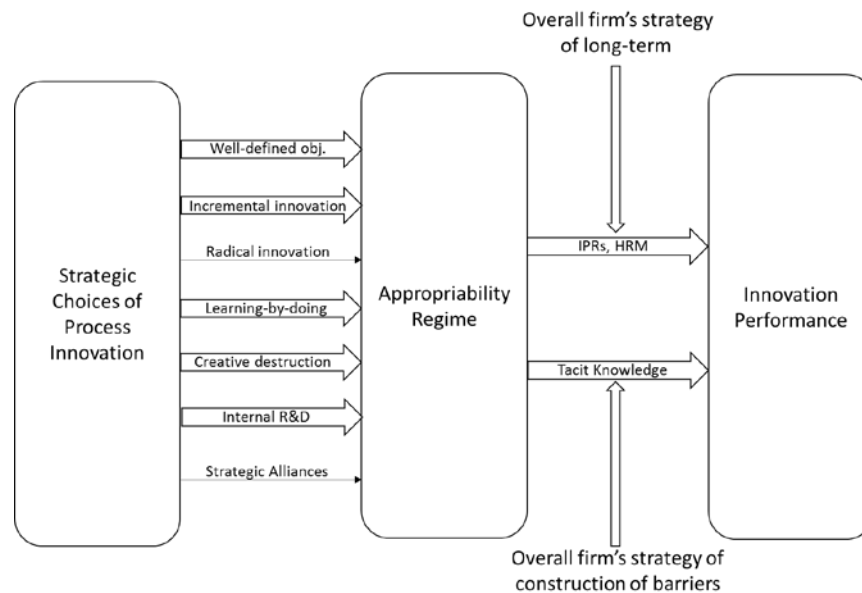
CONCLUSION

The objective of this study was to investigate how the process innovation in an R&D laboratory of an Oil & Gas company occurs. The lab was chosen because it has an expressive amount of patents, which is a recognized proxy for innovation performance. This research contributes to the understanding of the strategic choices to conduct process innovation and the appropriability regime to enhance company's performance.

We could observe that innovative concepts are applied by the lab researchers intuitively according to most of the business academic's recommendations, although the team has no theoretical knowledge about them. The process innovations are adopted internally by the oil exploration and production units; and also directly subsidize the company bottom line through the licensing of technology to competitors, generating direct revenues. Besides a strong hierarchical structure, the researchers operates as a matrix with the aim to attain specific objectives.

As a general recommendation, we highlight that companies must invest in internal R&D to develop owned innovations as main strategy. However, the opportunities of developing strategic alliances should not be neglect, both to patent generation and to licensing. Considering that Oil and Gas companies deal with huge investments, the overall strategy is usually of long term. For that reason, companies should use IPRs and HRM as appropriability mechanisms. The monetary investments needed for an efficient HRM are highly compensated by the returns of less turnover of skilled labor. To introduce barriers to competitors' misappropriation of owned innovation, tacit knowledge is also an efficient appropriability mechanism.

Figure 1: Conceptual framework for process innovation in an Oil and Gas company



In particular, to the oil and gas firms with similar size that share the same challenges, we recommend to the top managers taking in account the model of figure 1. Process innovation happens mainly incrementally, according to the evolution and new uses of current technologies. However, the firm should keep a window open for the possibility of radical innovations to emerge. The strategic alignment must be focused on a well-defined plan and changes in it or emerging innovations should be discussed by the top managers in order to be approved and implemented.

This is a preliminary study and have some limitations with regard to the unique case. As future studies, we recommend the use of more cases to validate and expand the model. In addition, we could advance by conducting a triangulation in order to give some robustness to the research. Other limitation is concerned to the methodology, which does not allow generalizations. Furthermore, we suggest the operationalization of the model through the proposal of hypothesis and the collection of a representative sample to statistically test it.

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HURWICZ METHOD MODIFIED AND THE AMPLITUDE MODEL (TAM)

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ABSTRACT

The decision making under uncertainty have a lot of applications in business. There are a set of methods, of old data, to resolve this problems. Of these traditional methods used to solve problems under uncertainty stand out Laplace and Hurwicz methods. As a reinforcement of these two methods was created The Amplitude Model (TAM), who has acquired proper life. To test the applicability of TAM has been compared to the traditional methods, and even, sometimes integrating with them, particularly with the method Minimax. To deepen these comparisons of TAM with respect to other methods, already a work has been realized with the method of Hurwicz, but after having made this comparison has emerged the possibility to modify the method of Hurwicz, what could present new perspectives. The objective of this paper is to present this last comparison, which is why to enunciate: Make a modification to the method of Hurwicz and validate The Amplitude Model (TAM) in front of it. To reach the general objective and its specific generated objectives it will follow the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS).

Keywords: Decision making under uncertainty, Hurwicz method modified, The Amplitude Model (TAM), HERGAR Problems, comparative study

INTRODUCTION

From many years ago to make decisions is becoming more and more complex, in a turbulent atmosphere and with a steady growth of the knowledge (DeSantis & Gallupe, 1987), that is why it is always necessary to pay attention to the perception, the aversion and the possibilities to minimize the risk (Greco, Matarazzo, Slowinski, 2001; Rommelfanger, 2007). Besides these three primary factors, Hung et al. (2007) have been studied for Decision Support Systems (DSS), it is also important to consider the possibility of regret the decision. But do not forget that every decision problem is developed under different conditions. These conditions are given from three main concepts (García M., Hernández G. & Hernández J., 2012; García M., Hernández J. & Hernández G., 2012): i) The Alternatives, like the possible actions to be continued by the analyst *decisor*, understanding for the last one the person or group that realizes the analysis of the decision making, ii) The States of the nature (SN) or situations of the environment that it is possible to present in a given moment and iii) The Payments (P_{ij}) that are the consequence or result expressed in units of suitable measurement, that is obtained on having chosen an alternative, when a certain state of the nature happens. Of these three concepts, especially the way the states of nature may occur, it is possible talk about different conditions for decision making (García M., Hernández G. & Hernández J., 2012):

Under certainty.- In which the parameters considered are known with certainty, without depending on a probability measure, which will be equivalent to having only a SN.

Under risk.- Where SN are known, and obey a probability measure known.

Under uncertainty.- Is the one in which the SN are all known, but their probability measure is not.

Under ignorance.- Situation in which the SN are not known.

Under competition.- Where the SN are not generated by an outside entity but by a competitor, chasing the same objectives as the analyst. In this case the problems are solved through Games Theory.

In this paper the focus is on decision making under uncertainty. It arises when alternatives are affected by external events. The making decision under uncertainty often appear in the business world, in financial decisions, in marketing decisions and even to plan production, to name a few fields of application. For the study of it have arisen through the years a lot of models, which by be old data they can be called traditional methods. Among those who are most often cited include (Baumol, 1977; Hildebrandt & Knoke, 2011; Hillier & Lieberman, 1974; Levin & Kirkpatrick, 1975; Mathur & Solow, 1994; Milnor, 1951; Puerto et al., 2000): Model Maximax, also known as the optimist model, Model Maximin, known as the pessimist model or Wald criteria, Model Minimax, or regret model, or Savage model, Model of realism, best known as a criterion of Hurwicz (Mathur & Solow 1994) and the model of the average, generally known as a criterion of Laplace. It should highlight the latter two: Hurwicz criterion and the criterion of Laplace. In particular the criterion of Laplace, considers that all events have equal probability of occurrence, so the alternative with the best expected value (VE) will be selected, for it is used: $VE_i = \sum_{j=1,n} P_{ij} / n$, with VE_i the value expected from the alternative i , P_{ij} the payment that gets the alternative i to be given the SN j and n the number of SN.

For its part the criterion of Hurwicz (Binmore, 2007; Diecidue & Wakker, 2001; Ghirardato, Maccheroni & Marinacci, 2004; Pazek & Rozman, 2009; Puerto et al., 2000; Rostek, 2006; Strat, 1990), only it takes in account the biggest and minor present payment in the alternative and with the use of a factor α , alternative that provides the best payment is chosen, using for this: $VE_i = \alpha * \text{maximum } P_{ij} + (1 - \alpha) * \text{minimum } P_{ij}$, where, as noted, α is a multiplicative factor, which takes values between 0 and 1 and VE_i and P_{ij} have the same significance previously indicated.

To reinforce the criteria of Hurwicz and of Laplace it arose The Amplitude Model (TAM) (García M., Hernández G. & Hernández J., 2012, 2014a; García M., Hernández J. & Hernández G., 2012;), which in addition to the expected value takes into account the dispersion of data through the amplitude, which acts as a punishment, hence the expression to evaluate TAM is: $Ai^* = \text{Max}_i \{VE_i + (\beta * VE_i - (1 - \beta) * Ami)\}$, where Ami is the amplitude of the alternative i and β is a multiplicative factor, that though it can take values between 0 and 1, demonstrated in a presentation in Argentina, in the year 2010 and not yet published, that for a correct use of the same one must take a value about 0,8. This factor acts as punishment, of there that for the case of minimization the expression only changes for + the symbol that precede to $(1 - \beta)$.

TAM has been used in form combined with other methods, with Minimax, and it has been validated in front of the other models. To make comparisons against the model of Hurwicz (García M., Hernández G. & Hernández J., 2014a), there arose the idea of modifying the last one. Although they have presented other modifications to the Hurwicz criterion (Gaspars-Wieloch, 2013), that follow a set of steps, the modification proposed here, in contrast, it is very simple and consists in use as the maximum P_{ij} the average of the $n/2$ higher values and as minimum P_{ij} the average of $n/2$ minor values. Of being n odd, the intermediate value will be used in both averages and of are repetitions, every value will be counted so many times as it should appear.

The presence of this simple modification of the method of Hurwicz generates the objective of this work, which can be enunciated: Make a modification to the method of Hurwicz and validate The Amplitude Model (TAM) in front of it.

This general objective carries three specific objectives:

- Submit TAM, which was conducted in the preceding paragraphs.
- Perform a modification of the method of Hurwicz, also presented in the preceding paragraphs.
- Validate through problems created ad hoc, the modification of Hurwicz and TAM.

To reach the general objective and its specific generated objectives it will follow the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS, in Spanish, Metodología Integradora-Adaptable para desarrollar Sistemas de Apoyo a las Decisiones [MIASAD]) (García M., Hernández G. & Hernández J., 2014b), which, among its features include the not pose hypotheses, but following a series of steps. And for its flexibility and adaptability to different types of research (García M., Hernández G. & Hernández J., 2014a; 2014b), can be used it, only the steps that are considered important, from there, similar to what was done in other works (Hernández, García & Hernández, 2014) only the following steps shall be:

- a) To define the problem, that, as is indicated in the objectives is to realize a modification to the method of Hurwicz and validate The Amplitude Model (TAM) in front of it;
- b) To prepare a first prototype, where the first, users of the final product are identified, that is to say the principal readership of this article, that will be all those interested in the decision making, especially those concerned with decision making under uncertainty and including all scholars of new approaches to solving problems that arise under this condition. Moreover, with this first prototype, the structure of the article is established, which in addition to this introduction and given that have already been presented TAM, the method of Hurwicz and its modification, will consist only of a central chapter. In this only chapter, through problems created with this purpose, problems HERGAR, will compare the three methods: TAM, Hurwicz and its modification, thus to study their behavior and have a validation of TAM and of the modification of Hurwicz;
- c) Obtain data, in all the sources of technical literature available, in this case on decision-making under uncertainty and in particular on the method of Hurwicz;
- d) Establish alternatives, that would be the various problems created to validate the two models;
- e) Evaluate alternatives. According to the advantages presented by each model, in each and every one of the studied cases;
- f) Select the alternative, according to the previous evaluation and considering the secondary objectives, whether they are tacit or explicit. The selected alternative may be a set of recommendations, as each situation studied;
- g) Implement the best alternative, illustrate or comment, how it would in practice implementing the use of each of the models studied;
- h) Establishing controls, which would be mechanisms to recognize if the solution or solutions achieved remain relevant over time.

With respect to limitations and scope, no field work will be realized, but the whole analysis is done through a set of problems HERGAR, specially created for this work and it is preceding (García M., Hernández G. & Hernández J., 2014a).

COMPARATIVE STUDY OF THE A MODIFICATION OF THE METHOD OF HURWICZ AND TAM

For major facility and for reasons of space, the discussion will appear in direct form on problems created for this intention. For every problem two tables will be used, in the first of them will be presented the problem, that is to say the alternatives (A_{xy}), the states of nature (S_{Nz}) and the payments (P_{ij}) corresponding. The xy of the alternatives, are digits that identify it. Although in each problem will only be used three alternatives, as a whole one will work with alternatives that go from the A01 up to the A32 and additionally there will be used the alternatives A29a, A29b and A29c, That despite being alternatives are in some way changes in the alternative A29 and it want to highlight these variations. Similarly in the states of nature z it is also a digit, but in this case z only take the values 1, 2, 3 and 4, since for all the problems, one will always work with four SN.

In addition to these first tables is presented the amplitude (A_m) and the solutions obtained by Laplace, through the expected value (V_e), The achieved by The Amplitude Model (TAM) and the achieved by Hurwicz and by the modification of Hurwicz (HurwiczMod).

In the second table, for each problem, It will be presented the matrix of repentance of the model Minimax and In addition, on this matrix will be calculated the expected value of repentance (V_e Arr), The amplitude of the repentance (A_m Arr), the repentance accumulated (A A), all of them to be smaller better, the value of regret model (MiniMAX) and the balance of the regret (Balance), that will be the algebraic sum of the repentance of an alternative, in accordance with the SN that has turned out to be favored. In this Balance, comparisons are made with respect to the minimum that had been won and the maximum that had been lost, for this reason in most cases the result is a value less than zero; in any case this value to be bigger is better. Below in tables 1 and 1ar, presents the problem HERGAR021.

Table 1. Comparison through the problem HERGAR021.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A01	0	4	10	10	6	<i>10</i>	8.8	7.0	7.60
A02	0	6	0	10	4	<i>10</i>	5.2	7.0	5.60
A03	0	5	5	10	5	<i>10</i>	7.0	7.0	6.00

In the table 1, as in the remaining tables, for TAM it will be used $\beta = 0,8$ and it will be used $\alpha = 0,7$ both for Hurwicz, and for modified Hurwicz.

Table 1ar. Regret Matrix and other parameters of the problem HERGAR021.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A01	0	2	0	0	0.5	2	2	2	3.00
A02	0	0	10	0	2.5	10	10	10	-9.00
A03	0	1	5	0	1.5	5	6	5	-6.00

In the table 1ar, as well as in table 1 and the other tables, are highlighted in blue and italics the best option for each of the cases, if this is best option only, in addition is placed in bold. In the problem HERGAR021, TAM Produces an alternative winner, the first (A01), which coincides with the modified Hurwicz (HuM), while Hurwicz (Hur) as the highest and lowest payment same for all, is not able to discern. A slight appreciation, might suggest that HuM is better than Hur. But seeing the problem HERGAR022 in tables 2 and 2ar, where Hur choose the second alternative (A04), while TAM and HuM have no alternative winner, is that this idea is false.

Table 2. Comparison through the problem HERGAR022.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A03	0	5	5	10	<i>5</i>	<i>10</i>	<i>7.0</i>	7.0	<i>6.00</i>
A04	2	3	3	12	<i>5</i>	<i>10</i>	<i>7.0</i>	9.0	<i>6.00</i>
A05	-2	7	7	8	<i>5</i>	<i>10</i>	<i>7.0</i>	5.0	<i>6.00</i>

Table 2ar. Regret Matrix and other parameters of the problem HERGAR022.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A03	2	2	2	2	2	0	8	2	-8.00
A04	0	4	4	0	2	4	8	4	-4.00
A05	4	0	0	4	2	4	8	4	-4.00

In the remaining tables (3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 and 17) and corresponding complementary tables (3ar, 4ar, 5ar, 6ar, 7ar, 8ar, 9ar, 10ar, 11ar, 12ar, 13ar, 14ar, 15ar, 16ar and 17ar) there will be able to be observed different possibilities that can be present, where in some cases the alternative selected by Hur or by HuM, is supported by the remaining parameters, or Otherwise, the alternative that gives as winning TAM, is supported by the majority of other parameters. And even cases where none has sufficient support to suggest that there is a better alternative given, or any of the methods chosen the best alternative.

Table 3. Comparison through the problem HERGAR023.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A06	0	6	6	8	<i>5</i>	8	7,4	5,6	5,80
A03	0	5	5	10	<i>5</i>	10	7,0	7,0	6,00
A07	-2	5	5	12	<i>5</i>	14	6,2	7,8	6,40

Table 3ar. Regret Matrix and other parameters of the problem HERGAR023.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A06	0	0	0	4	<i>1</i>	4	<i>4</i>	4	-2,00
A03	0	1	1	2	<i>1</i>	2	<i>4</i>	2	-4,00
A07	2	1	1	0	<i>1</i>	2	<i>4</i>	2	-2,00

In HERGAR023, Hur and HuM, they give as winning alternative the third (A07), Supported by the remaining parameters and TAM gives winning the first alternative (A06), supported by Ve Arr, A A and Balance.

Table 4. Comparison through the problem HERGAR024.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A08	0	4	4	12	5	12	6,6	8,4	6,20
A09	-2	4	10	12	6	14	8,0	7,8	8,00
A10	3	3	3	7	4	4	6,4	5,8	4,40

Table 4ar. Regret Matrix and other parameters of the problem HERGAR024.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A08	3	0	6	0	2,25	6	9	6	-9,00
A09	5	0	0	0	1,25	5	5	5	1,00
A10	0	1	7	5	3,25	7	13	7	-10,00

In HERGAR024, TAM and HuM, give a winning alternative, the second (A09), which is supported by the remaining parameters, while Hur gives winning the first alternative (A08), with no other support. while in the HERGAR025, Hur and HuM given as winning the third alternative (A09), with support from the remaining parameter, but TAM gives winner the alternative one (A01), with the support of Ve Arr, Am Arr and A A. Very similar to what happens with HERGAR026, only that here TAM, also has the support of MiniMax.

Table 5. Comparison through the problem HERGAR025.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A01	0	4	10	10	6	10	8,8	7,0	7,60
A06	0	6	6	8	5	8	7,4	5,6	5,80
A09	-2	4	10	12	6	14	8,0	7,8	8,00

Table 5ar. Regret Matrix and other parameters of the problem HERGAR025.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A01	0	2	0	2	1	2	4	2	-4,00
A06	0	0	4	4	2	4	8	4	-6,00
A09	2	2	0	0	1	2	4	2	-2,00

Table 6. Comparison through the problem HERGAR026.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A11	-2	6	10	10	6	12	8,4	6,4	7,60
A06	0	6	6	8	5	8	7,4	5,6	5,80
A09	-2	4	10	12	6	14	8,0	7,8	8,00

Table 6ar. Regret Matrix and other parameters of the problem HERGAR026.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A11	2	0	0	2	1	2	4	2	-4,00
A06	0	0	4	4	2	4	8	4	-6,00
A09	2	2	0	0	1	2	4	2	-2,00

The problems HERGAR027 to HERGAR032, are not shown here (tables 7, 8, 9, 10, 11, 12 and their complements 7ar, 8ar, 9ar, 10ar, 11ar and 12ar) for reasons of space, but these problems and their results can be seen in García M., Hernández G. & Hernández J., (2014a), but without neither HuM nor MiniMax columns. In these problems, not shown, it can see situations where alternative that TAM given as winning, which has the support of the other parameters, or where the other parameters are not clearly support any of the alternatives, or where HuM has better support. Is to say results do not allow a clear conclusion from all this. That is why then the problems HERGAR033 to HERGAR036 are included, where a curious situation, which allow a conclusion to be presented.

Table 13. Comparison through the problem HERGAR033.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A27	6	6	6	6	6	0	10,8	6,0	6,00
A28	5	5	6	7	5,75	2	10,0	6,4	6,05
A29	-1	4	5	12	5	13	6,4	8,1	6,40

Table 13ar. Regret Matrix and other parameters of the problem HERGAR033.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A27	0	0	0	6	1,5	6	6	6	-4,00
A28	1	1	0	5	1,75	5	7	5	-7,00
A29	7	2	1	0	2,5	7	10	7	-5,00

Table 14. Comparison through the problem HERGAR034.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A27	6	6	6	6	6	0	10,8	6,0	6,00
A28	5	5	6	7	5,75	2	10,0	6,4	6,05
A29a	-1	4	4	12	4,75	13	6,0	8,1	6,05

Table 14ar. Regret Matrix and other parameters of the problem HERGAR034.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A27	0	0	0	6	1,5	6	6	6	-4,00
A28	1	1	0	5	1,75	5	7	5	-7,00
A29a	7	2	2	0	2,75	7	11	7	-6,00

Table 15. Comparison through the problem HERGAR035.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A27	6	6	6	6	6	0	10,8	6,0	6,00
A28	5	5	6	7	5,75	2	10,0	6,4	6,05
A29b	-1	2	2	12	3,75	13	4,2	8,1	5,05

Table 15ar. Regret Matrix and other parameters of the problem HERGAR035.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A27	0	0	0	6	1,5	6	6	6	-4,00
A28	1	1	0	5	1,75	5	7	5	-7,00
A29b	7	4	4	0	3,75	7	15	7	-10,00

Table 16. Comparison through the problem HERGAR036.

	SN1	SN2	SN3	SN4	Ve	Am	TAM	Hurwicz	HurwiczMod
A27	6	6	6	6	6	0	10,8	6,0	6,00
A28	5	5	6	7	5,75	2	10,0	6,4	6,05
A29c	-1	-1	-1	12	2,25	13	1,5	8,1	3,55

Table 16ar. Regret Matrix and other parameters of the problem HERGAR036.

	SN1	SN2	SN3	SN4	Ve Arr	Am Arr	A A	MiniMax	Balance
A27	0	0	0	6	1,5	6	6	6	-4,00
A28	1	1	0	5	1,75	5	7	5	-7,00
A29c	7	7	7	0	5,25	7	21	7	-16,00

The interesting thing about these last four problems is that only varies the third alternative (A29, A29a, A29b and A29c), which, while maintaining its greater payment, the value of 12, to decrease the remaining payments, it gradually becomes weaker. Note that Hur and HuM begin supporting this alternative, but rapidly HuM discards it to support the second alternative (A28), which is an attractive alternative and supported by MiniMax, although it is not better than the first (A27), the supported by TAM, that ensures a better expected value. This analysis allows see that the modification of Hurwicz presented here, is a real improvement of this method, because it has the ability to see the remaining values of payments and not to keep only the best pay as decision value, as generally handles the Hurwicz normal.

With the problems presented here, especially the last four, can be passed to provide some conclusions and recommendations. Before presenting the conclusions it is important to highlight, that although the problems discussed here represent a hypothetical situation, they can represent any real case. A typical case is when there are had three projects (3 alternatives) and each it is influenced differently if the global economy contracts, it is maintained or improved greatly improves slightly (four states of nature).

CONCLUSIONS AND FUTURE INVESTIGATIONS

Having presented The Amplitude Model (TAM) and the proposed modification of the method of Hurwicz, can say that the first two specific objectives were met. On the other hand, although it is not able to submit all of the problems used to make comparisons, is noted, that according to every problem, it is best to use either technique. But there are not enough parameters to support the conclusion that TAM is better than Hurwicz or its modification. Nevertheless the last four presented problems allow to conclude that the modification of the method of Hurwicz here proposed, it is of supreme utility, since it is capable of admitting that the alternatives do not centre his force only on the biggest value, but the remaining payments must be considered and can modify the decision.

This conclusion can also be extended to TAM, since by comparison with Hurwicz, also allows to recognize the weight of the intermediate payments and not only extreme payments. However, although the latter two conclusions, the overall objective is met, it is not possible to do any forceful affirmation between TAM and the modification of Hurwicz here presented. Of there that could recommend the simultaneous use of both methods and in accordance with the one that receives support of the method of Laplace and of MiniMax, must generate the alternative to select. In any case it can find support in the remaining parameters discussed in this work: Expected value of repentance (Ve Arr), Amplitude of repentance (Am Arr), Amplitude accumulated (A A) and Balance of repentance (Balance).

This last conclusion allows to recommend, that continue using TAM as an independent method and to continue with this line of research, validate of TAM through other techniques and other parameters.

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EXPATRIATE EMPLOYMENT RETENTION IN PRIVATE COMPANIES: MODELLING THE LITERATURE

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ABSTRACT

As the pace of globalisation continues investors are increasing their foreign direct investments (FDI) to realize high rates of interest on their investments (ROI). The retention of their expatriate staff, who have acquired valuable tacit knowledge, thus becomes crucial to sustain competitive advantage. Traditional research has tended to focus on MNC employed expatriate staff, normally on short term postings but research on directly employed, independent expatriates, many of whom spend large part of their careers in a country, has been neglected. This paper draws together key strands in the literature to present a model of expatriate retention that can be empirically tested.

Keywords: Staff retention, expatriates

INTRODUCTION

In many major emerging markets despite abundant manpower and domestically produced capital, there is still the dependency on foreign acquired expertise and machinery required to manufacture merchandise and provide services. For example, the Nigerian government offers incentives for foreign direct investments, concessions to its ports and railways to foreign bidders, whose capital investments enables Nigeria to close its “investment gap” (Uwubanmwun & Ajao, 2012). According to Todaro & Smith (2004) cited in Uwubanmwun & Ajao (2012), ‘FDI’ is more than just the injection of capital; there is a transfer of technical expertise, organizational culture and “cutting-edge business techniques” through expatriates of these companies working in emerging economies, thus positively influencing the challenges that are encountered in the development in the host country.

Employee-turnover is highly undesirable due to its high-costs and an estimated 20-40% of expatriates return from their overseas assignments prematurely (Reiche, Kraimer & Harzing 2011). Thus many organizations seek to lower turnover rates amongst expatriates and find effective ways to manage them and motivate them to perform better. Though literature discusses ‘expatriate retention’, there is little information on this topic for expatriates in emerging markets. Very little research has been previously conducted that focuses on the strategic alignment of human resources including ‘expatriate retention’ in Non MNCs type of organizations that are crucial for developing economies (Okpara & Kabongo, 2011).

Many emerging markets have societies with a ‘collectivist culture’ necessitating local management to promote and hire members of their own clan or extended families, in spite of them not being suitably qualified for the job. As an example according to Hofstede (2001) cited in Okpara & Kabongo (2011), Nigeria has a high “uncertainty avoidance society”, where there is relatively low tolerance for uncertainty; local managers resort to reducing ‘uncertainty’ through laid down “policies, laws and regulations” for better control over unforeseen circumstances. Thus Nigerian society does not accept change readily and would require international managers to be more aware and implement strategies than can enable ‘change’ more readily. Low “uncertainty avoidance” also promotes a “hierarchical organizational structure”, where there is unwillingness on the junior manager’s part to make decisions and important decisions are mostly left to the most senior manager (Okpara, & Kabongo, 2011). For many first time expatriates in emerging economies this often comes across as a ‘culture-shock’. Concepts such as “nepotism”, ‘favoritism’, ‘villagism’ can astound foreign managers. For many local

corporations in emerging economies who employ expats, their contracts are for 15 to 20 years, thus expatriates recruited for key positions in these companies spend a significant portion of their careers in the host country as “Country experts”. It would be interesting to analyse the success of ‘long term expatriate managers’ and investigate factors that make them succeed. Also of interest would be research on understanding how successful expatriates manage cross-culture adjustment and knowledge; such insights could then be incorporated in an organization’s training program for better ‘cross culture adjustment’ of their international staff in emerging markets. As a first step towards the above goals we present a holistic literature review to understand the domain, constructs and dimensions of expatriate retention. The literature review leads to the formulation of an expatriate model and some possible questions that can be empirically tested.

LITERATURE REVIEW

Expatriates and Socio-Cultural Adjustment

‘Expatriates’ can be defined as “individuals who live and work in countries other than their native land” (Tucker, Bonial & Lahti, 2004, Black & Mendenhall, 1990). ‘Expatriate adjustment’ is the process when an “employee leaves a familiar cultural-environment for an unfamiliar one” (Okpara & Kabongo, 2011); it defines inter-cultural adjustment in a manner that can be measured. It involves uncovering issues regarding individuals that could lead to them achieving high levels of adjustment to the new culture/environment (Tucker, Bonial & Lahti, 2004).

Psychological Hardiness

Multinational corporations use various tools and techniques for selecting the right candidate for an international assignment. According to Andreason, (2008) cited in White, Absher & Huggins, (2011), organizations need to focus more on how to ‘select’ the ‘right’ expatriate for an international assignment; there is a need to develop effective strategies for selecting and screening personnel that will enhance the possibility of success of ‘international assignment’. White, Absher & Huggins, (2011) propose that ‘psychological hardiness’ is an important trait necessary for adjustment to the new environment. ‘Psychological hardiness’ is defined as the ability to survive in an adverse environment. Maddi’s (1999a) cited in White, Absher & Huggins, (2011), study has shown that ‘psychological hardiness’ is related to lower levels of physical stress and illness experienced. Thus it is this personality disposition which suggests resilience and strength which might be more suited to the tenacity required for socio-cultural adaptability.

Cultural Distance

White, Absher & Huggins, (2011) suggest that a lesser ‘cultural distance’ of an expatriate’s home country to the host country, results in less stress experienced while trying to adapt to the new socio-cultural environment. Their findings conclude that managers tend to adapt more easily when their ‘cultural distance’ between their home and host country was lesser. They recommend that Human Resource(HR) directors need to be aware of the ‘cultural distance’ when selecting ‘expatriates’ for assignments, as “the greater the cultural distance between the expatriate’s home to the host country, the more the likelihood of failure”. They further recommend that the candidate should be either disqualified or receive training if their individual score and the host country score was significantly different, based on Hofstede’s five dimensions. White, Absher & Huggins, (2011) expected “psychologically harder managers” to adapt better socio-culturally to the new environment, however their results showed no significant reduction in difficulties in adaptability for managers with less cultural-distance to the host country as compared to those with more cultural-distance from their home culture. Thus it was deduced that ‘hardiness’ was not sufficient enough to increase the ‘ease of adaptability’ as affected by the cultural-distance of the individual to the host country culture. Further research is needed to determine if prior “cultural exposure or education or language-congruence” can moderate the cultural-distance effect on socio-cultural adaptability. The implications for HR directors might be to create profiles based on these elements of ‘psychological hardiness’, ‘cultural-distance’ and ‘socio-cultural adaptability’ that is best suited for their organization for recruiting expatriates, alternatively they could create profiles of the most unsuitable attributes specific for their international assignment (White, Absher & Huggins, 2011).

Selection Processes and Cross Culture Training

Many MNC's experience difficulty in retaining their expatriate-staff with many being sent home prematurely (Okpara & Kabongo, 2011) or becoming ineffective. Cross-culture training is thus an important aspect for successful international operations. According to Forster (2006), multinational firms (MNC's) usually employ rigorous and complex pre-move policies in the areas of their selection procedures that may include psychometric and personality tests. Selection processes may involve cross-culture and language training for the expatriate and their families. However, research has shown that over the past 20 years, there has been insufficient attention paid to proper selection and training in their 'non-technical skills' of potential candidates for international assignments (Brislin & Yoshida, 1994, Business International Corporation, 1992, Black & Mendenhall, 1990, Tung, 1988a, 1988b cited in Forster, 2006). Major reasons for a high rate of failure amongst expatriates are the inadequate criteria for selecting expatriates (Black & Mendenhall, 1990 cited in Forster, 2006). The ability to adapt easily to a new culture is the most important criteria for selecting an expatriate for a successful undertaking, this where "cross-culture training" becomes an important part for the success of the international assignment. Cross-culture training introduces the new culture to the potential candidate, sensitizing them towards the new culture and making them aware of the unavoidable psychological stresses involved with adapting while living and working in a new culture.

Cultural Empathy

Researcher such as Mendenhall & Oddou, (1986) cited in Forster, (2006), suggest "cultural empathy" as a crucial element in their training courses (Forster, 2000, Smith & Still, 1997 cited in Forster, 2006) alongside the willingness and aptitude of the potential candidate. 'Cultural empathy training' is the process of developing an increase in the ability to work and live in a culturally new environment. Tung, (1982) cited in Forster, (2006) classifies six types of cross-culture training programs:

- Information or facts about the new geographic location such as "geographic location, climate, housing, schools".
- "Cultural orientation" that informs about various cultural institutions and values" upheld by the local population.
- "Cultural assimilation" programs where inter-cultural interactions are described as "episodes".
- Training in the local language.
- Training to develop flexibility in one's attitude.
- Field experience where individuals experience the psychological stress of adapting fitting in and working with people from foreign cultures.

However, Tung (1982) cited in Forster, (2006) reports that only "20 out of 29 European firms actually use some form of pre-departure training", most of the training involves short, informal briefings about the work environment, some language training and maybe some field experience. Brewster & Pickard (op cit) cited in Forster, (2006) found that without doubt 'cross-culture' training assists in 'adjustment' to the new culture. They also uncovered an important factor that 'adjustment' of expatriates and their families to the new culture was directly related to the "size and cohesiveness" of the expatriate community in the new location. The larger the expatriate community the greater support received by the new expatriate and their families; the greater support facilitated better 'cultural adjustment' (Marchant & Medway, 1987 cited in Forster, 2006). As Forster's (2006) research which does focus on mainly expatriates on comparatively shorter foreign assignments, mainly working for Multinational corporations, their research may not apply to the context we are interested in. Our interest is to investigate the type of 'cross-culture training' that would be most effective in the 'emerging economy', where expatriates spend a large part of their careers in their positions; how they adjusted to the host country working environment and remain in their positions.

Theory of Met Expectations

Caligiuri, et. al. (2001) suggest that cross culture training is relevant for an expatriate's expectations regarding their job to be more accurate. When an expatriate's home country shares more similarities with that of the host country, cross-culture training provided to the expatriate would have lesser influence on the degree to which the

expatriate's expectations regarding the job are "realistic" and are likely met (Caligiuri, et. al. 2001). Training before departure is very relevant as it influences the expatriate's expectations regarding the job and the degree of their adjustment, thus it's crucial for expatriate's expectations to be realistic. For example in some cultures "bargaining" is a common form of shopping for goods; Cross culture training thus can cultivate the precision of an expatriate's expectations by training them on how to bargain (Caligiuri, et. al. 2001). According to these researchers devising a training program to suit an expatriate especially tailored for them would be the best method through which an expatriate's "expectations of their job being met", that leads to a successful tenure.

Mentors

Research conducted by Wanberg, Zhu, Harrison, & Diehn, (2011) state that in order to improve the success rate of adjustment to the new culture, expatriates suggests that "people need to be made available to potential candidates to have informal talks about the challenges and difficulties experienced working in the new country versus back home". Expatriates wanted to be assigned 'mentors' who could guide new comers in the customary processes of the new country. The mentor could be the 'best resource' who informs the expatriate of the 'real deal' of relocating and working in the new environment. A few expatriates even felt that one's "social and personal life" was to be given top priority if 'adjustment' were to occur more successfully, as it was not possible to be successful at work in the long term if one's social network outside of work was not successful. Many expatriates suggested having a 'forced social event', designed to bring expatriates together and share experiences and insights, especially with the newly arrived ones (Wanberg, Zhu, Harrison, & Diehn, 2011). 'Seasoned expatriates' could then shed light on what strategies worked for them and helped them want to retain their jobs.

Expatriate- 'Organizational Embeddedness'

"Retention" of expatriates can be related to "organizational embeddedness"; the "entirety-of-forces" that keep employees in their present jobs and their desire to carry on (Greger & Black, 1990). Expatriate retention in multinational corporations (MNC's) was studied by Greger & Black (1990) to help reduce the high rate of expatriates returning prematurely from their international assignments thus incurring high losses to corporations. The authors formulated hypotheses of the various factors affecting "commitment and adjustment" of expatriates to the new work culture that affected the expatriate's decisions to remain in their jobs. Greger & Black (1990) then related their hypothesis to empirically data collected from expatriates working in countries in Pacific Rim and West European countries. Their research focused on "job-related" as well as "non-job-related" elements associated with an expatriate's intention to carry on in their assignment (Greger & Black, 1990). The results of their research pointed to the 'non-job' related factor of "making adjustments to local-nationals" being a crucial element that affected retention of expatriates. However their methodology had some limitations regarding the validity of their external and internal conclusions. The researchers had posted surveys to expatriates and thus the response time and rate was affected due to inconsistencies in mail service, the mobility of expatriates and factors such as 'adjustment' and 'commitment' need more longitudinal time frame to be properly studied. Moreover, the study was limited to top American executives only, thus the understanding of "global expatriate retention" was limited (Greger & Black, 1990). The author's research will investigate factors that facilitate "organizational-embeddedness" (Reiche, Kraimer & Harzing, 2011), motivating expatriates to perceive an 'organizational-fit' and remain in their organization and not consider leaving. Our research will investigate reasons for failure of 'expatriate-adjustment' that usually leads high expatriate turnover in. We present a model that could be empirically tested.

Career Development and Advancement Opportunities

Kraimer, Shaffer & Bolino's (2009) study examines 'expatriate retention' from the view of "career management". Their study focused on analyzing the effects of "experiences of expatriates" and "organizational support for their career" that led to "advancement in their careers" after they were repatriated to their home country. Lazarova & Caligiuri (2001) cited in Kraimer, Shaffer & Bolino's (2009) suggest that 'repatriation' is challenging- many repatriates return home to resign after a few years. This causes great concern to corporations that spend millions of dollars on international assignments and then lose out on 'knowledge acquired' and 'experienced expatriates'. Kraimer, Shaffer & Bolino (2009) focused on repatriate's beliefs of their "under-employability" that mediated the relationships of "career-advancement and their intention to resign". The

researchers proposed that the number of ‘overseas assignments’ was negatively related to an expatriate’s career advancement in an organization. Additionally they perceived “organizational support” related positively to “career advancement” and negatively to “intentions to resign” when repatriated. The researchers concluded that “cultural and managerial skills” acquired and a successful completion of the last overseas assignment was positively related to an expatriate’s advancement in their careers. Kraimer, Shaffer & Bolino’s (2009) research has important implications for both the organization to better ‘manage’ expatriate’s careers in order to retain them and for expatriates themselves when considering an overseas assignment’s impact on their career advancement. Their ‘sample size’ being relatively small could not detect “statistical significance in regression equations” (Kraimer, Shaffer & Bolino, 2009). They only used ‘surveys’ as the method of data-collection, thus their results could not include in-depth analysis and could be affected by “common-methods variance” (Podsakoff, MacKenzie, Lee & Podsakoff, 2003 cited in Kraimer, Shaffer & Bolino, 2009) and “percept-percept-bias” (Crampton & Wagner, 1994 cited in Kraimer, Shaffer & Bolino, 2009).

Intrinsic and Extrinsic Motivational Factors

There are numerous intrinsic and extrinsic factors that motivate expatriates to relocate and work in foreign countries. Research has shown ‘life-styles’ remains the main incentive for expatriates to remain away from home, aside from extrinsic factors such as financial benefits, work-experience, the climate and personal development such as learning new languages (Anon, 2006). It is hypothesised that “job-satisfaction” plays a crucial role in the turnover rate of expatriate (Bluedorn cited in Naumann, 1993), ‘expatriate turnover’ being fairly higher than ‘domestic-turnover’ ranging from 20 to 50% on all international assignments (Mendenhall & Oddou, 1985 cited in Naumann, 1993).

Job Satisfaction

‘Job-satisfaction’ is derived from extrinsic-satisfaction that could be from “rewards as bestowed by the organization, superiors, peers and in the form of compensation, promotions, recognition” aside from the usual incentives of “housing, education, travel-allowances and compensations” (Naumann, 1993, Fish, 1996). Expatriates might find working in an unusual environment to contribute even greater intrinsic-satisfaction. The unique cultural environment can be viewed as challenging and interesting thus learning to ‘adapt’ to this unique culture, results in high levels of intrinsic-motivation (Naumann, 1993). Other intrinsic factors could be the influence of the assignment on career prospects or advancement of the individual’s international-career and professional-development, thus Fish (1996) suggests paying attention to an “individual’s intrinsic development and career advancement” to better retain expatriates (Fish, 1996).

Cultural Intelligence (CQ)

Another crucial dimension of expatriate-retention is the individual attribute of ‘Cultural intelligence (CQ)’ which relates to ‘emotional-intelligence’; this is defined as “an individual’s capability to interact effectively in circumstances characterized by diversity in culture” (Earley & Ang, 2003 cited in Templer, Tay & Chandrasekar, 2006). Cultural intelligence (CQ) consists of the expatriate’s “cognitive CQ” (which is the human-mental ‘introspective’ thinking for modelling of intelligent thinking systematically), “meta-cognitive CQ” (which is defined as ‘knowing about knowing’), “behavioral-CQ” (the pre-disposition to withhold ‘judgment’ before acting/behavior) and “motivational-CQ” (Templer, Tay & Chandrasekar, 2006) that enables a person to adapt to foreign cultural surroundings and work productively.

Motivational CQ

‘Motivational-CQ’ is an intrinsic form of motivation based on ‘self-efficacy’ that leads to better adjustment to the new culture (Ang, et.al. 2004 cited in Templer, Tay & Chandrasekar, 2006) on the expatriate’s part. Ng, Van Dyne & Ang (2009) cited in Ming, Mobley, & Kelly, (2013) defined “cultural intelligence (CQ)” as a moderator that meliorates the “learning capability” of an individual, when they earnestly engage in the four phases of “experiential learning” (i.e. experiencing, reflecting, conceptualizing and experimenting) which nurtures their leadership development on overseas assignments. Earley & Ang (2003) cited in Ming, Mobley, & Kelly, (2013) state that CQ is a dynamic resultant condition rather than an inborn trait, thus individuals can develop and

improve their CQ's (Earley, Ang & Tan, 2006 cited in Ming, Mobley, & Kelly, 2013). 'Motivational CQ' of individual's causes them to focus and apply their capabilities to learn about and function effectively in cross-cultural environments. Higher motivational CQ enables individuals to want to interact with different cultures; experiencing different cultures and learning from setbacks. Their resilience and high interest level enables them to persist and learn from their experiences (Ang, 2006 cited in Ming, Mobley, & Kelly, 2013).

Behavioural CQ

'Behavioural CQ' is an individual's ability to withhold their inner perceptions and reservations, react and behave appropriately in the unfamiliar situation. This capability significantly enables expatriates to build relationships and improve communication which is important for international assignments. While experiencing a new culture it can lead to a "culture shock", instead of this being a barrier, individual's with high CQ use it as a 'learning experience' to enable themselves to comprehend "complex mental frameworks", allowing them to arrive at accurate conclusions and behave appropriately in their interactions with different cultures, thus utilizing their meta-cognitive CQ (Ming, Mobley, & Kelly, 2013).

Development of CQ

Prior international experiences allow for exposure to different cultures and hence development of CQ. Expatriates on their overseas assignments are exposed to different legal, social and economic systems thus learn and develop their cognitive CQ. According to Grotenhuis & Weggeman, (2002) cited in Ming, Mobley, & Kelly, (2013), "overseas work-experience, is not just content knowledge of a specific culture but allows for tacit knowledge, which is not explicit" and only acquired through participative encounters and observing in different contexts. Thus actual experiences are reflected upon and assimilated as "cultural experiences", which forms the basis for the individual to actively experiment by behaving in a culturally appropriate manner. According to Kolb (1984), "concrete experiences (CE)" encounters form the basis for "reflective observations (RO)" to decipher and comprehend the encounter. 'RO' enables viewing from various perspectives and "suspending judgments", critically analyzing and challenging one's own presumptions and appreciating different points-of-view. Thus new cultural knowledge is assimilated through "abstract conceptualization (AC)", which allows the individual to make sense of a similar situation in the future and act appropriately or behavior executed through "active experimentation (AE)" (Kolb, 1984).

Prior International Experience

Ming, Mobley & Kelly, (2013) propose that the 'length' of an international experience relates positively to the CQ-level. The development of level of CQ varies according to the individual's learning style, the "divergent learning style" being most effective. The "divergent" learning style is where individuals are imaginative and emotional, they are able to connect their feelings with their experience in a particular situation more solidly, are able to check their presuppositions and adjust their presumptions (using their meta-cognitive abilities). Thus learning from the actual experience to better understand the differences/similarities of culture (using cognitive abilities) and they are enabled to act according to the situation (Ming, Mobley, & Kelly, 2013). Development of CQ and expatriate adjustment takes time, according to Bhaske-Shrinivas, Harrison, Shaffer & Luk, (2005) cited in Ming, Mobley, & Kelly, (2013) it could take five years approximately for an expatriate to feel fully integrated in society and develop a satisfactory CQ. Implications for HR heads is that although international experience itself is not a sufficient guarantee for developing CQ; it is the 'learning style' of the expatriate, through a self-initiated evaluation of their personal learning style and understanding of its potential of being most conducive to developing their CQ from their overseas experience, expatriates can further develop their CQ. According to Ming, Mobley, & Kelly, (2013) "meta-cognitive CQ" is most essential 'learning capability' required to develop CQ. It involves a process through which individuals obtain and grasp knowledge by planning strategies, observing, then revising 'mental frameworks' of cultural practices (Ang, et. al, 2007 cited in Ming, Mobley, & Kelly (2013).

Organizational Support and Culture

Further organizations need to incorporate a “supportive learning culture” that would foster the development of CQ amongst its international staff, in order to develop its global operational capabilities. Ming, Mobley, & Kelly’s (2013) study does not reflect the effect of organizational support on the acquiring of CQ for expatriates. According to Chen, et. al. (2010) cited in Ming, Mobley, & Kelly, (2013) “environmental factors such as social support provided by the organization in the host country” has significant bearing on the development of CQ of the expatriate that better help ‘adjustment’ to the new culture and in turn affect ‘retention’. ‘Contextual factors’ need to be studied in which will provide insight into the relationship between international experience and development of an expatriate’s CQ. This researcher’s constructivist view, takes into account the ‘context’ in which ‘reality’ occurs, as perceived by the individual. Thus questions asked during semi-constructed interviews are structured to allow the researcher to gain insight and attain an in-depth view of this relationship.

Intrapersonal Intelligence and Self-Efficacy

Present CQ research relates cross-culture capabilities to intelligence theorization and concentrates on cultural adjustment at an “intellectual (mentally), physical (behaviorally) and a motivational level”. Templer, Tay & Chandrasekar (2006) found that expatriates with high CQ have the “capability of learning from appropriate cues in the new cultural settings and build their repertoire of behavioral responses to them”. Zhao, Deng, & Kemp, (2013) finding that ‘motivational CQ’ and the environment might drive changes in behavior and enhance behavioral CQ, leads to concluding that expatriate’s enthusiasm and passion regarding working in a new cultural environment, motivates them to better adjusting in the new culture, making it easier for these expatriates to adapt to various cultural differences and accept challenges they experience. The researchers find that “mental CQ can be developed by a willingness to learn (motivational CQ) and experiential CQ” which results in adjustments in behavior. Thus it can be concluded that “intra-personal intelligence” and self-efficacy are a crucial part of cross-culture adaptation, where “intra-personal intelligence” is the knowledge about one’s self; knowing one’s strengths, weaknesses, intelligences and passions (Gardner, 1993 cited in Zhao, Deng, & Kemp, 2013) and self-efficacy is an individual’s perception regarding their abilities to perform at a desired level (Bandura, 1977 cited in Zhao, Deng, & Kemp, 2013).

Implications for Organizations

The implications for HR heads and organizations are that CQ is crucial in today’s global business economy to remain competitively advantaged and prosper. Expatriates can develop and improve their CQ and organizations can assess potential expatriate’s CQ level through psychometric tests and foretell their adjustment to the new culture and performance. Zhao, Deng, & Kemp, (2013) state that “experiential learning” is the most effect way of acquiring a deeper knowledge of the new culture which leads to better adjustment and hence more appropriate behavior, thus an “ongoing, on-the-job” training needs to be part of the expatriate’s development agenda. Zhao, Deng, & Kemp, (2013) qualitative study was based on a single cross-culture context, i.e. they interviewed Australian expatriates working in Australian firms in China, thus there could be some bias. As research of the dimensions of CQ is still in its embryonic stage, different findings by various researchers can lead to theorizing on inconsistent, not precise or even incompatible findings (Gelfand, Imai & Fehr, 2008 cited in Zhao, Deng, & Kemp, 2013). However, a diversity of fresh findings will assist in gaining the concept and foundation of CQ research. Thus there is scope for future research on the inter-relationship between the three facets of CQ; mental, motivational and behavioral (Zhao, Deng, & Kemp, 2013).

Cross Culture Training to Include CQ Development Techniques

Rosenblatt, Worthley & MacNab, (2013) suggest that existing cross culture training and other educational approaches to development of CQ use different methods and training styles that tend to be a “cafeteria style of training” and hence become problematic, as it lacks a conceptual framework for the various kinds of training to be linked to and how it relates to various individual needs (Rosenblatt, Worthley & MacNab, 2013). Additionally they suggest that current training techniques rely on cognitive skills to create awareness and obtain knowledge, but slight attention has been focused on development of meta-cognitive and motivational capabilities that are crucial for cross culture adaptability. Ng, Van Dyne & Ang (2009) cited in Rosenblatt, Worthley & MacNab, (2013) argue that CQ development offers a substantial framework that addresses positive results of cross culture training that include alteration of motivational, behavioral, cognition and meta-cognition in a more holistic

manner. Further, CQ development would enhance cross culture adaptability across various culture instead of being culture specific, which is crucial not just for expatriates in international settings but also useful for working effectively in a ever changing demographic workforce and culturally diverse societies as globalization spreads.

Contact Theory and Expectancy Disconfirmation

Rosenblatt, Worthley & MacNab, (2013) proposition is grounded in “contact theory” and Bhawuk’s (2009) cited in Rosenblatt, Worthley & MacNab, (2013) research regarding “experiential cross-culture learning”; they argue that perceived optimal cross culture contact is related to experiencing “expectancy disconfirmation”, which is the experience of expecting a certain kind of behavior in response to a specific interaction but experiencing an entirely different one (Bhawuk, 2009 cited in Rosenblatt, Worthley & MacNab, 2013). This ‘experience’ relates to CQ development, where the individual’s level of CQ develops from involvement in an “experiential CQ education” in a cross culture ‘contact’. Allport’s (1954) cited in Rosenblatt, Worthley & MacNab, (2013) explains “contact theory” as “optimal contact” that has a pre-requisite of having numerous conditions such as “equal status” amongst participants, common objectives, “personalized contact” and support by authorities of the contact, as crucial elements perceived in the optimal cross-culture contact needed for CQ development through ‘experience’. Rosenblatt, Worthley & MacNab’s (2013) study with University students was limited as they did not find it feasible to design a “true experimental version” of the project with a control group. Other important factors especially related to expatriates in Nigeria is the age of the expatriate, the ‘stage-in-their-lives’(marital-status and children’s ages),job-status, educational-level, length of service, job-position, empowerment, role clarity, cultural novelty and co-worker support form important criteria for expatriates in deciding if they would accept the international assignment or not. Intrinsic factors that impact ‘expatriate retention’ are also the characteristics of the job such as the ‘extent-of-autonomy’, participative decision-making, ‘psychological stresses’ experienced, feedback-received and organizational-formality. Perception of these ‘organizational factors’ by expatriates, have a significant impact on them wanting to continue on in their positions and hence affect expatriate-retention. Other organizational factors are the opportunities to form friendships and task-identity, which can positively or negatively affect expatriate-retention (Severt, Xie & DiPietro, 2007). In conclusion, cultural intelligence (CQ) remains a crucial factor that impacts ‘expatriate retention’ as ‘self-monitoring’ has an influence on emotional, behavioural and cognitive intelligence (Gupta, Singh, Jandhyala & Bhatt, 2013). As selection and training of expatriates affect expatriate adjustment and performance; the personality variables of selected expatriates with respect to their ‘CQ’ and the cross-culture training they receive has important bearings on expatriate retention (Harrison, Chadwick & Scales, 1996).

RESEARCH GAP

From the literature review it is apparent that numerous factors influence expatriates retention, thus ‘expatriate management’ requires deeper analysis of current ‘expatriate retention strategies’ in organizations. Current literature on ‘expatriate retention’ focuses mainly on factors that influence expatriate retention in multinational corporations, where expatriates spend a few years in a particular country before being transferred to a new country. To what extent is this relevant to retention of expatriates working in privatized firms? This research trajectory therefore is uniquely different from previously conducted studies on ‘expatriate-retention’ as previous studies were mostly concerned with employees of multi-national corporations (MNC’s). Expatriates employed by indigenously-owned firms or host country-based foreign-owned firms tend to spend a major part of their careers in the same country, unlike those employed by MNC’s; hence previous studies on ‘expatriate-retention’ would not apply to them. The ‘engagement’ and ‘retention’ of these ‘expatriates-experts’ with tacit knowledge acquired during their tenure becomes crucial for firms to sustain competitive advantage.

CONCEPTUAL FRAMEWORK

The following themes emerged from the review of literature and a theoretical model illustrating these factors affecting ‘expatriate retention’ is developed as shown in figure 1.

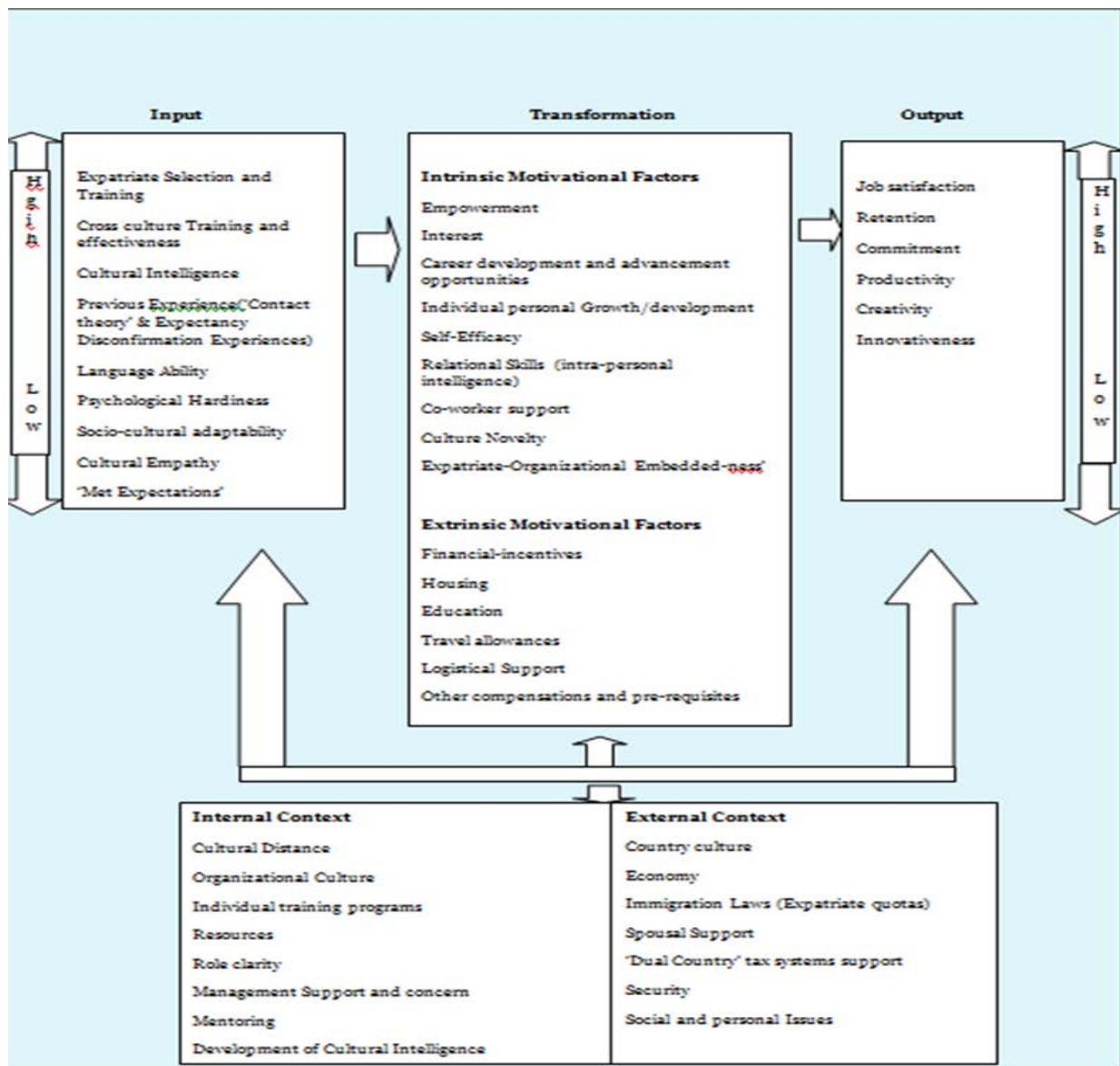


Fig 1 A model of expatriate retentions (authors, 2015)

- Definition of 'Expatriates' (Tucker, Bonial & Lahti, 2004, Black & Mendenhall, 1990) & Adjustment (Okpara & Kabongo, 2011).
- Psychological Hardiness & Cultural Distance (White, Absher & Huggins, 2011).
- Selection Processes (Forster 2006) & Cross Culture Training (Mendenhall & Oddou 1986).
- 'Met expectations Theory' (Caligiuri, et. al. 2001).
- Mentors (Wanberg, Zhu, Harrison, & Diehn, 2011)
- Organizational Embeddedness (Greger & Black, 1990)
- Career Development & Advancement Opportunities (Kraimer, Shaffer & Bolino, 2009)
- Intrinsic & Extrinsic Motivational Factors (Fish, 1996)
- Life Style (Fish, 1996)
- Job Satisfaction (Bluedorn cited in Naumann, 1993)
- Individual Development (Fish, 1996)
- Cultural Empathy (Mendenhall & Oddou, 1986 cited in Forster, 2006).
- Cultural Intelligence (CQ)-Motivational CQ (Zhao, Deng, & Kemp, 2013), Behavioral (Templer, Tay & Chandrasekar, 2006)

- Development of CQ (Rosenblatt, Worthley & MacNab, 2013)
- Prior Exposure (Ming, Mobley & Kelly, 2013)
- Intra-personal Intelligence (Gardner, 1993 cited in Zhao, Deng, & Kemp, 2013)
- Self-efficacy (Bandura, 1977 cited in Zhao, Deng, & Kemp, 2013).
- Organizational support and culture (Ming, Mobley, & Kelly, 2013)
- 'Contact Theory' & 'Expectations disconfirmation' experiences (Rosenblatt, Worthley & MacNab, 2013).

It is the intention of the authors to empirically test the above model in industries where private sector expatriates are common such as the oil and gas sector, shipping industry, the 'fashion industry' or the 'Fast Moving Consumer Goods' industry.

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HOMELESSNESS IN JOHANNESBURG INNER CITY, SOUTH AFRICA

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ABSTRACT

Homelessness is a situation where one lacks habitable housing and is excluded from the affiliate bonds that link settled people to a network of interconnected social structures. Homelessness on the streets in South Africa is a slow moving tragedy that arouses anxiety in government and civil society. Street homelessness sits at a chokepoint for metropolitan city regions development planning, and is set to increase as recessionary unemployment rises. Moreover, some government commissioned studies reveal that the homelessness situation is worsening. Given the latter notion, I assert that some areas of homelessness in South Africa are not sufficiently researched; for example, Johannesburg Inner City. My point of departure in this project is that homelessness in South Africa is multi-faceted; deeply interrelated with questions of power, the economy, human dignity and social justice. I maintain that recognizing homelessness as a social justice issue and developing a National Action Plan (NAP) seems to be a reasonable starting point.

Keywords: Homelessness; Social Constructionism; social justice; Johannesburg Inner-City; South Africa

INTRODUCTION

Homelessness on the streets in South Africa is a slow moving tragedy that arouses anxiety in government and civil society (Cross, Seager, Erasmus, Ward and Donovan, 2010, p.5). Where street homelessness is concerned, some government commissioned studies reveal that the situation is worsening. 'Street homelessness sits at a chokepoint for metropolitan city regions' development planning, and is set to increase as recessionary unemployment rises (Cross and Seager, 2010, p.157). With the latter notion in mind, I assert that some areas of homelessness in South Africa are not sufficiently researched; for example, Johannesburg Inner City, the proposed research site. My point of departure in this project is that homelessness in South Africa is multi-faceted; deeply interrelated with questions of power, the economy, human dignity and social justice (Daya and Wilkins, 2012; Morrow, 2010; Naidoo, 2010; Cosser, 2000; Constitution, 1996).

Morrow (2010) notes that 'Any attempt to confront homelessness in contemporary South Africa must start with a sober recognition of the formidable, many-faceted and historically rooted nature of the problem' (p.61). Daya and Wilkins (2012) also state the importance of exploring the affective dimensions of homeless people's lives, connecting their embodied and material experiences with their emotions, feelings and desires, in order to try and understand them as more than simply socially and spatially excluded others (p.373). Essentially, and as a basic human right guaranteed by the South African Constitution, Act 106, of 1996, everyone in South Africa must be enabled to put down roots in safe, affordable homes in viable communities on land with secure tenure (Cosser, 2000; Constitution, 1996). This is in keeping with the government's Eight Batho Pele (People First) Principles intended to overhaul social service delivery in a post-apartheid dispensation. However, in this project I hold that this is not the situation as yet.

The tone of the above-cited literature shows that many researchers agree that there are many different dimensions of South African homelessness, with regard to actual living situations, how homelessness is experienced and grappled with, and that homelessness and street homelessness in particular is a social problem in South Africa. However, some attribute homelessness to individual or personal deficiencies and situate the

causes of homelessness at a personal level, calling for micro-level interventions (cf. Daya and Wilkins, 2012; Naidoo, 2010; Cross et al., 2010; Cross and Seager, 2010). In my opinion, this perspective is mistaken, ill-informed and too simplistic and at best, lacks depth. I argue instead, that homelessness as a social problem in South Africa is systemic in its very nature and therefore macro-level policy interventions seem more appropriate. Also, recognizing homelessness as a social justice issue and developing a National Action Plan seems to be a reasonable starting point in my view. Because I will be interviewing homeless street dwellers including those that live in shelters by choice, my tentative definition of homelessness is

‘A situation where one lacks habitable housing and is excluded from the affiliate bonds that link settled people to a network of interconnected social structures’.

THE JOHANNESBURG INNER CITY CONTEXT

The context of my research site has been adequately described by Murray (2010), who asserts that

Johannesburg was first and foremost the ungainly creature of the feverish quest to extract gold from deep below the earth’s surface, with cheap labor; the gold-mining industry owed its existence to the seemingly insatiable appetite for this particular precious metal. From the late nineteenth century until the early 1970s, the historic urban core of the city expanded upward and outward more or less in tandem with the fortunes of the gold-mining industry. From the start, city planners, municipal authorities, and property developers constructed the Johannesburg cityscape to comply with the grand utopian imaginary of Western modernity. Like other Victorian cities implanted in sub-Saharan African during the time of colonial rule, Johannesburg came into existence at the geographical margins of the great metropolitan centers of Europe and North America, outside the cosmopolitan circuits of Paris, London, Berlin, Vienna, Rome, Milan, New York, and Chicago. As a consequence, they were never quite capable of reconciling the local and the indigenous with the imitated and the imported. This “pyramid of mining” (to use a phrase coined by Lewis Mumford) shaped Johannesburg into a vibrant wealthy city whose leaders believed it would become a permanent European beachhead on the African continent’ (pp.10-12).

Today, Johannesburg is characterized by unemployment and lack of low cost housing. Cross et al (2010) assert that this spatial mismatch between housing location and livelihood needs undercuts the efforts to provide viable public housing for the homeless; suitable public housing spaces are rarely available in the high-demand city areas where the homeless find their livelihoods (p.10). This is the situation in Johannesburg Inner City as well. The research site is chosen because I once lived in that vicinity and therefore I am socially aware of the environment. I have previous knowledge of homelessness issues and have ongoing interest in the dynamics of that context.

AIM OF THE PROJECT

The aim of this research project is to investigate the two discourses of homelessness in South Africa, their roots and implications for the present and future social work education as well as the practice of the profession in South Africa. The project takes interest in social workers in so far as they provide services to the homeless people; and in stakeholder organization as an important role player with a vested interest and playing advocacy role within the homelessness research field. I use this aim as a key to explore *Homelessness Constructions in Johannesburg Inner City*, and engage Social Constructionism as a conceptual framework. Meaning, I explore how the homeless people and homelessness are socially constructed in the context of Johannesburg Inner City, South Africa. I also investigate the driving forces and other variables at play in causing homelessness, that is, improve my understanding of homeless people and their situation in Johannesburg Inner City. In this project I use an inductive approach.

RESEARCH QUESTIONS

1. To explore pre-colonial, colonial and post-colonial discourses in the history of South African homelessness.

2. To investigate how homeless people in the Johannesburg Inner City context use language including protest language code or 'tsotsitaal' to conceptualizing, explain and account for their homelessness.
3. To develop an understanding of the everyday life and interactions of street dwelling and how the homelessness phenomenon plays itself out in Johannesburg Inner City, South Africa.
4. To explore the service providers' discourse on homelessness and how the social workers' narratives of homeless people are related to the prevailing power structures governing the provision of homelessness social service in a Post-1994 South Africa.
5. To examine stakeholder organization documents or official files with a view to establish how they came to perceive of homelessness as a problem in Johannesburg Inner City; what issues informed their activities then and how they have changed over time, and what triggered the change; standpoints and attendant events.

PROJECT DESIGN

The research project will finally be presented as a compilation thesis comprising common introduction and four thematic papers structured as follows:

Paper One: The history of homelessness in South Africa is discussed from secondary sources, namely, stakeholder organization documents, with special reference to Johannesburg Inner City. Social Constructionism is engaged as an approach. Homelessness related issues to be discussed include how the stakeholder organization apprehended homelessness as an issue in South Africa, the issues that informed their claims-making activities then and how they have changed over the years e.g. from Pre-colonial, Colonial, Apartheid and Post-Apartheid government dispensations. In this paper I argue that the socially constructed ancient concept of *Ubuntu* and the *Batho Pele* (*People First*) Principles are particularly relevant concepts to consider in elucidating these claims.

Paper Two: This paper is about the life histories and everyday life of homeless street-dwellers and the primary data will be collected during fieldwork in Johannesburg Inner City. The approach I use is ethnography and discourse analysis. How people present themselves and their lives, e.g. as 'happy-ending stories' or 'sad stories'; an account of who and what have been helpful and hurtful in their situation, is at the core of this study as are the observations of interactions, including possible discrimination or exclusion practices within the social service sector, be they perceived or real.

Paper Three: This paper is devoted to social work practice as it relates to the homeless as a special interest group. It explores how social work practice and record keeping might be related to homeless people's constructions of their own lives (as presented in paper two, oral life histories). In this paper documents or social workers' official files, are perceived as actors (Prior, 2003). The data will be collected from the Johannesburg Inner City homelessness social workers' 'official closed intake' files during fieldwork in June - September 2014. With the help of the social worker guiding me on how their filing system works, my plan is to select files with the most relevant and appropriate information for the project, after that make photo copies for analysis purposes. However, before removing the latter from the relevant offices, I will use a thick black marker to erase the homeless people's identifying information, e.g. names and any information that has the possibility to link the information to a specific homeless person.

The organizations to be included in this exercise are 'drop-in centers' and 'temporary housing shelters'. It is envisaged that the analysis of their documents, e.g. policy papers as well as official closed intake files will highlight how the social workers' narratives of homelessness are affected by the prevailing practices and power structures governing the provision of homelessness social service in the Post-1994 South Africa. These might be policies on homelessness and local municipality by-laws. The possibility that the social workers' narratives might question or even challenge the current service provider intervention approach/ model (to be revealed through paper two based on fieldwork) will also be explored. For this part, interviews will be conducted with respective social workers as service providers.

Paper Four: At this stage I am not sure what the structure of this paper would be. It might well be that it will be informed by unanticipated themes emerging from the analysis of papers two and three. Given the notion that language is embedded in cultural and socio-political dimensions, I might explore the possibilities to analyze

‘tsotsitaal’, the code language of the street homeless people. As a result, I would like to leave possibilities open regarding this paper.

THEORETICAL GAZE

The project is guided by the following theoretical perspectives:

1. *The Social Construction of Reality/ Social Constructionism*: My previous research activities on homelessness including an enduring keen interest in the field lead me to conclude that both the stakeholder organization and social workers documents (closed intake files) are part of the construction of reality, facts and truth about the homeless street-dwellers and the homeless phenomenon in Johannesburg Inner City; therefore I take a view that they are co-creators of the homelessness body of knowledge (Hacking, 1999; Rubington and Weinberg, 1995). I assert that they should be engaged as the basis for research – given that these documents are themselves the results of the stakeholder organization and social workers’ everyday judgments and decisions in their everyday interactions with the homeless people. The latter forms the notion on which the project is premised (Prior, 2003; Talja, 1999; Fairclough, 2003; Cameroon, 2001; Phiri and Perron, 2012).

2. *Interactionism*: My intention is to explore the possibility to perceive the social workers and the stakeholder organization documents in an interactive context. This means that the document itself is perceived as action and the social workers and stakeholder organization officials as actors who write them (Prior, 2003; Blumer, 1969; Moustakas, 1994). I plan to examine the latter actors’ interaction with these documents, that is, how the documents inform, define and shape their everyday professional work and the homelessness body of knowledge.

3. *Ethnography*: This will include life histories of the homeless people, their interviews and follow-up of living cases (shadowing). Observations of both the homeless people and social workers will be done in their natural context as they carry out their everyday affairs of life and business, respectively (Fine, 1993; Gubrium and Holstein, 2001; Holstein and Gubrium, 2001; Gubrium and Holstein, 1999; Emerson, Fretz and Shaw, 2011).

4. *Discourse Analysis*: To analyse the data collected, discourse analysis will be engaged (Talja, 1999; Cameroon, 2001; Fairclough, 2003).

CONCLUSION AND MANAGEMENT IMPLICATIONS

Examining homelessness constructions from the homeless street-dweller perspective and comparing them with those applied by service providers and stakeholder organization officials seems to be an unexplored research area in South Africa. Moreover, investigating the field of homelessness engaging a perspective that perceives documents (social workers closed intake files) as actors (Prior, 2003) seems to be an unconventional and unproven method. Therefore, I argue that this project is well placed to shed uncommon light on how the homelessness phenomenon plays itself out in the Inner City of Johannesburg. For social work education including the attendant research and the practice part, it is envisaged that the results will promote a more service user friendly perspective that fosters a culture of perceiving the homeless as a special interest group. For policy-making I will pursue a belief and notion that homelessness is a social justice issue. On a broader perspective, it is envisaged that the project will generate latest information on the homelessness constructions, a comparative analysis of the past and present stakeholder organization issues and how the homelessness phenomenon plays itself out in Johannesburg Inner City, the everyday life of the homeless people and their ever-changing situation. Overall, it is envisaged that the comprehensive results of this project, taken to heart, will enhance and create conducive conditions for service providers and other stakeholders to be more sensitive and inclusive in their program offerings to their homeless service users. I maintain that recognizing homelessness as a social justice issue and developing a National Action Plan (NAP) seems to be a reasonable starting. The study is conducted under the auspices of the School of Social Work, Lund University in Sweden.

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UBUNTU IN PARTICIPATORY COMMUNITY DEVELOPMENT

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ABSTRACT

Based on a three-year case-study conducted at the Educare community in Boksburg - Gauteng Province of South Africa, this paper examines the concept of Ubuntu (humaneness) from a Participatory Community Development perspective. Using Swanepoel's five phases Community Development Model as a conceptual framework, it is aimed at contributing to a cumulative process of understandings of this ancient concept of Ubuntu including its application in facilitating Participatory Community Development intervention with a view to resource Community Development practitioners, scholars, researchers, policy makers and other stakeholders. The overarching lesson learnt is that to harness local potential, after engaging people in capacity-building efforts, it is important and possible to allow them to make informed decisions and choices about their situations because it enhances the sustainability of the envisaged community development intervention, allowing people to take control of their lives in meaningful ways that are respectful to their respective cultural belief systems.

Keywords: Ubuntu; Themeli Educare Center; participatory community development; South Africa

INTRODUCTION

The concept of *Ubuntu* (humaneness) is significant for everyone who wishes to understand the heart of African people and their age-old cultural belief systems, norms and traditions. According to this ancient concept of Ubuntu an individual's worth is perceived and defined within the context of a social relational collective. This is communicated through several African proverbs including '*Motho ke motho ka batho*' – literally translated as '*I am because you are*'. By implication, the concept of Ubuntu denotes a notion that it is possible to perceive this concept as an attitude or a Spirit. Subsequently, Ubuntu as a Spirit relates closely with a determination to get the job done even under seemingly impossible conditions, with fellow human beings in mind as co-beneficiaries of an individual's ultimate achievements. In that Spirit then, the motivation behind life and living is that everyone takes responsibility for others as well as for themselves.

The Themeli Educare center context

The Educare Centre under study and the environment within which it operates had many problems and challenges, for example, lack of sewerage, supply of clean water for individual households and education and care (Educare) for children whose parents are gainfully employed. At the time of conducting the initial study in 1996-1998, which was later extended until 2006, my observation was that most residents of such informal settlements allocate themselves Residential stands without the due permission of the local municipality concerned and designate the areas concerned as residential areas. Along with this development of informal settlements, several Educare facilities had mushroomed in those respective areas. One such facility was established by Kagiso in 1995 together with his wife Mosa, who are residents at Ramaphosa informal settlement and also work at the center as owner-managers. Kagiso convinced his wife, a qualified professional school teacher who was at the time unemployed, to help with the administration of the center. When the center started they only had fourteen registered children and two teachers, Mosa being one of them. In 1998 when I terminated the initial formal interaction with the center, it had 69 registered children aged between 6 months and six years and employed four teachers on a full-time basis.

This Educare center was situated within an environment characterized by shacks used as houses, shops, shebeens and day care centers like Themeli Educare. Ramaphosa informal settlement is divided into two phases. Phase one was being developed in terms of infrastructure. For example, there are about 500 house stands, hygienic toilet facilities and water taps in each yard. Phase two comprises about 600 shacks altogether, and the area was not yet developed in terms of the above mentioned infrastructure.

The Educare center under study is situated in phase two where at the time of the research there were no hygienic toilet facilities but pits adapted to serve as toilets. There were no water taps in individual yards (unlike in phase one). Taps were situated at the corner of each street, which means that each street used one tap communally. There were no primary health care facilities in the entire community except for a mobile clinic facility offered once a week by the Boksburg Local Council (now part of Ekurhuleni Metropolitan Council) on Tuesdays from 09:00 to 15:00. There were no school facilities or buildings. Local community children attended school at a neighboring community called Reiger Park, which is about 500 meters away. Also, there was no Police Station, to name but a few amenities. The nearest towns were Germiston and Boksburg which are about five to seven kilometers away respectively. On observation, informal settlements in the early nineties had become prevalent habitats mostly for African unemployed or low income earners in South Africa.

How I became involved with the Educare

I first met Kagiso at the meeting of local Educare Network members in Johannesburg. It was during this encounter that Kagiso gave me an introductory talk about their center and invited me to visit, after learning that I am a professional social worker. The brief of the invitation was that I should help develop their organizational policies and help with fund raising projects. This marked the beginning of a working relationship the outcome of which is the case study presented in this paper.

The participants in the process

The participants in the process were men and women between the estimated ages of 25 and 40 years who were parents of the children registered at the Educare center. All of them were employed and had some form of income that enabled them to pay their children's fees at the center. They were involved in the process by way of attending meetings, sharing ideas and volunteering their services and time during the Educare center's events and excursions. The attendance at meetings which were organized through Kagiso's letters of invitation to parents hand-delivered by their children varied from 20 to 35 people. Occasionally attendance was between 50 and 55 people. It is important to mention that at all meetings there were some parents who were consistent in their attendance. This positive attitude demonstrated by the latter parents helped motivate me to continue with the role and responsibilities of being a facilitator. Furthermore, I am inclined to assume that the consistent attendance of meetings by some parents could be accounted for by the meaning they attached to attending meetings and participating in the attendant activities.

On observation, the concept of meaning and meaning-making on the part of the participants accounts for, mainly, the commitment and dedication evidenced by their willingness to attend meetings and volunteer their services at the different activities of the Educare center. According to Fairclough (2006) there are three analytically separable elements in the process of meaning-making: the production of the text, the text itself, and the reception of the text. Each of these three elements has been given primacy at different points in the recent history of theories of meaning (p. 10). But it seems clear that meanings are made through the interplay between them. Overall, the social effects of speech and conversation translated into texts, as in all the meetings recorded in this case study depended upon processes of meaning-making by the participants themselves (Fairclough, 2006; Gubrium & Holstein, 2001; Myer, 1998).

The next session is a presentation and discussion of the Community Development Model used during the study.

SWANEPOEL'S COMMUNITY DEVELOPMENT MODEL

Swanepoel's (1997) five-phase community development model was used as theoretical framework in the process of interacting with the primary stakeholders of the Educare center, namely, co-owners and fellow employees alike. Mainly, the latter describes a participative community development process as comprising of the following five phases: contact making, needs and resource identification, planning, implementation and evaluation. Additionally, the *Ubuntu* perspective was used to enhance understanding of the themes under discussion. Of this perspective, (Phiri, 2008, p. vii) asserts that '*Ubuntu* is a social and local (South African) constructed concept for an expressed community inspired Spirit, coupled with appropriate corporate action, motivated by fundamental needs of individual members with an end to share what little resources there are'.

Contact making

The objectives of making contact and attending the attendant series of meetings were: to request Kagiso to introduce me to the entire Ramaphosa community through what (Swanepoel, 1997, p. 35) calls a "community walk"; to create a common understanding of my involvement with Themeli Educare center; to establish a relationship with the stakeholders and foster feelings of acceptance for me and one another and to share experiences among each other. The issues raised during the first meeting are: unemployment; lack of schooling facilities in the community; water supply by the local municipality; Employment conditions at the Educare and late payment of monthly school fees.

Listening to the experiences and perceptions of the parents, teachers, Kagiso and Mosa about their working relationship during the meeting, I realized that I had to make more time available to listen to more of their stories and experiences individually and together during my subsequent weekly visits to the day care center. I also acknowledged the determination of all role players to find a lasting solution to their common needs and problems regarding their children's welfare through dialogue during and in between meetings. The predominant theme in that meeting was the sense of determination on the part of all role players to go on, coupled with enthusiasm to find a workable solution to whatever problems they encountered. I established a relationship before and after the meeting with parents and teachers with a view to encouraging their participation and to build on the positive working relationship at the center. To accomplish the latter, I used Ubuntu, respect, empathy, warmth and acceptance. By the end of the meeting, consensus had been reached that I attend subsequent general meetings of the parents' body which were held quarterly at the day care center. I would also be introduced to other parents who were absent so that my role as a facilitator could be explained again and clarified.

Swanepoel (1997) maintains that the attitude of the community worker is of prime importance. 'The correct attitude opens doors while the wrong one locks them' (p.37). Heeding the latter, I focused mainly on the Ubuntu perspective, respect for all stakeholders, building relationships of trust throughout my interaction with the Themeli community members.

Needs and resource identification

Swanepoel (1997) holds that needs identification starts informally during the contact making phase and undergoes a formal phase when a project is instituted (p. 108). Because this phase was characterized by a series of meetings, I used Freire's (1972) problem posing and dialogue strategy as my conceptual frame of reference. This allowed the participants to discuss and analyze their problems critically and to come up with possible solutions. As the objective of this phase was to identify needs and resources, sometimes the Needs Identification Phase overlapped with the Planning and Implementation Phases. In between the many meetings that characterized this phase, the Boksburg Transitional Local Council affected a water-supply cut at Ramaphosa community for both Phase I and Phase II where Themeli day care center is situated. This happened from the beginning of June until the first week of August 1998. There were times when scheduled monthly meetings could not take place as a result of this. Nevertheless, I did continue making my weekly visits to the center in spite of the discontinued water supply.

During the contact making phase Kagiso requested me to help with ideas on how to raise funds for their Educare. At that time, the seriousness of this expressed need was not clear to me until I attended my first meeting of the general parent body, where Kagiso discussed the issue of late payment of school fees. At that meeting it occurred to me that funds raised for the day care center were used to sustain food supplies and for the general maintenance of the center, especially during difficult months when parents made late monthly payments or no payment at all. Parents make late payments because according to them the money they earn is not adequate. They suggested forming a *Stokvel* to augment their “little salaries”.

The Needs and Resource Identification phase was followed by the Planning phase which the action group decided should be done immediately, followed by the Implementation phase. The reason cited was that there was no need to waste any more time as the members knew what they wanted. According to the action group members, the need to act on the mandate given to them by the parent body (during one of their meetings which I did not attend) to write the envisaged *Stokvel* constitution, have it typed and to have it circulated to other members for amendment and approval, getting the Standard Bank account opened and giving the details thereof to bona fide members needed to be addressed with urgency. This would demonstrate the determination and courage on their part to act on and take ownership of their own decisions. For me as the facilitator, the consensus reached on this project was very encouraging and rewarding. Thus, the need identified was to start a money generating initiative called *Stokvel*. The *Stokvel* idea was a creative way of responding to the parents’ need to augment their salaries – as expressed from their ‘own frame of reference’.

To this end Henderson and Thomas (1989) assert that sensitivity and flexibility are key words when working around needs assessment issues (p. 415). Complementing the latter, Swanepoel (1997) contends that ‘it is important for the worker to find out what the people perceive as their needs, as community development cannot start until at least some of the people have the attitude of wanting to do something’ (p 34). In facilitating the self-determination principle during this phase, I used Rogers’ (1987) Person Centered Approach, with particular reference to proposition 4 which states that ‘The organism has one basic tendency and striving, to actualize, maintain and enhance the experiencing organism’ (p. 487). The overarching theme in the needs and resource identification phase was the need for financial empowerment which, according to group members, could be realized by starting a *Stokvel* project. The view of the group members was that the primary aim of the *Stokvel* would be to augment the income of parents whose children were registered at Themeli day care center. Throughout this process I made sure to express a belief in them as people with a potential to realize their envisaged collective goals, with me as facilitator playing the role of a guide and enabler.

Planning

Swanepoel (1997) defines planning as ‘bringing together three elements, needs, resources and objectives and then to relate them to the fourth element, namely, action’ (p.79). Following the needs prioritization exercise, the group members decided that an action plan needed to be developed in order to realize the solution to the identified problem, namely, starting a *Stokvel* project. Prior to the development of the plan, the group was involved in in-depth discussion and brainstorming. I facilitated the latter, the objective of which was to enable the members to map out the realities of their situation in answering the questions: What would be the terms of reference of their *Stokvel*? How soon would the members be ready to start the project, for example, making their financial contributions and opening a bank account? Who else would help in writing the *Stokvel* constitution (remembering that Mosa had volunteered to write the latter with my assistance)?

According to Burkey (1993) ‘An outsider who comes with readymade solutions and advice is worse than useless. He must first understand from us what our questions are, and help us articulate the question better, and then help us find solutions’ (p.131). I allowed the action group members to discuss their plan of action and only interjected where my guidance was needed. From the discussion the following decisions were reached: each member’s monthly contribution would be R50-00; the name of the project would be the Pull-together *Stokvel*; membership would in the first instance be open to the parents whose children were registered at Themeli day care center, and when additional vacancies were available, only the Ramaphosa community members would be accommodated on a first-come-first served basis; the maximum number of eligible members would be limited to twenty initially; *Stokvel* business meetings would be held once a month; the date of the first meeting for all prospective, registered and fully paid-up members was scheduled for October 4, 1998, where

feedback of all activities of the action group members would be formally presented and the proceedings of the meeting minuted.

The fact that I encouraged group members to have a brainstorming session in order to come up with different ideas and solutions was empowering and enabled them to increase their thinking and decision making capacity. During the planning phase I offered Stokvel constitution writing skills training to action group members, something I believe boosted their confidence and enhanced their self-esteem.

Unanticipated events

In response to the request made by Kagiso for me to help with raising funds for the center, an application for funding was made to the Gauteng Department of Education – ECD and Primary Education Policy Unit under the auspices of IMPILO EDUCARE PROJECT. Before a decision was made to award the grant to Themeli Educare center, the grant application process dictated that there must be a project site visit by the project coordinator, which was organized and accomplished. This visit was subsequently followed by a visit by the then Gauteng Education M.E.C. (Member of Executive Committee) Mrs Mary Metcalfe and the STAR Newspaper Education Reporter – Jacqui Reeves, who published the respective news article on May 5, 1998. The result of this unanticipated event was that Themeli Educare center was granted an amount of R4000-00 renewable annually for the next three years, with the possibility of additional and extended funding based on satisfactory annual progress reports. This event happened between Planning and Implementation phases.

Implementation

This is the phase where planning done in the previous phase had to be put into action. It must, however, be mentioned that small plans as well as small-scale implementations were carried out in the previous phases as they complemented this ‘implementation’ phase. Swanepoel (1997) refers to implementation as ‘The coming to fruition of a process that started during the contact-making phase and progressed through the need identification, objective setting, organizing and planning phases’ (p. 162). The meeting at which implementation was discussed took place on August 5, 1998 and was attended by four members who may be referred to as the ‘action group’. In that meeting the participants started by reflecting on the topical issues and events that had taken place in their recent past, for example, the water supply cut by the Boksburg Transitional Local Council in Ramaphosa.

After checking with the meeting, Mosa, who was doing most of the reporting, I was requested to facilitate the election process. During the discussion a decision was made that candidates could be nominated, but the person nominating needed to motivate why they thought that person should be elected; and another person had to second the nomination, with motivation also. Finally, the Executive Committee was elected and consisted of action group members who had been actively involved from the start of the project. The committee consisted of the Chairman, Secretary, Treasurer and one additional member. The meeting decided that it was only fair to elect the people that had been actively involved from the start of the project. This was interpreted as a gesture of appreciation for the hard work that went into preparing for this *Stokvel* project. After the election the committee was congratulated by all members who promised them their support.

Evaluation of the process and project

The following evaluation is based on Swanepoel’s (1997) model criteria, namely, appropriateness or ‘fit’ of the project and feasibility of the project (pp. 176-177):

Appropriateness or ‘fit’ of the project

According to this criterion, it must be determined whether the needs, objectives, action plan and the action itself fit one another. In this project, the need was identified by Themeli Educare community members themselves, and steps to be taken were prioritized according to urgency, and appropriate action was taken. The appropriateness of the project was therefore confirmed because the project was meant to satisfy a specific need, namely augmenting the financial resources (salaries) of the parents by establishing a *Stokvel*. The fact that as registered and paid-up

members they would each take a turn in receiving the *Stokvel* corporate income was a significant relief because a *Stokvel* could satisfy the subsistence need as it would boost and augment their current income. As for Mosa and Kagiso, the hope was that the R50-00 monthly contribution and the resultant corporate income would spell an end to the problem of late payment of monthly school fee by parents.

Feasibility of the project

This criterion evaluates the use of resources available for a project, including human resources. According to Swanepoel (1997) the following *three* questions must be asked in order to determine the feasibility of the project (p. 176):

Is the objective within the reach of the action group?

The answer to this question was in the positive given that the objective to start a *Stokvel* project was realized; the feasibility criterion was therefore met.

Are there sufficient resources to reach the object?

The answer to this question was also positive in that the project was within my professional skills and knowledge, including the fact that I had the local cultural competence. I also had knowledge of the available government resources that the Themeli Educare community could possibly access. The resources included IMPILO PROJECT which funded the day care center with an amount of R4000-00 annually for three consecutive years starting from the year 1998. The action group in particular and all the participants in the project were a great and valuable resource in that they contributed their time, willingness, determination and possessed the will to succeed.

Is the project completely dependent on external resources to reach the objective?

I would have to say the answer to this question is in the positive because there was a balance between external resources namely, the facilitator, the government financing and the internal resources namely, the participants themselves together with their monthly contributions. The three resources, although mutually exclusive, they complemented each other. In my view, community members needed all the resources they could get in order for them to realize their *Stokvel* initiative ideal, which they did. Regarding the Boksburg municipality water supply cut for the entire Ramaphosa community, it was not possible for the parent's committee members to honor appointments for meetings. Although I kept visiting the community on a weekly basis to inquire and track progress on the process, at that time it seemed as though there was no progress regarding the envisaged project, namely, *Stokvel*. Nevertheless, the fact that I visited the community weekly, this gesture earned me credibility with the corporate parents' body at Themeli Educare center, in my view.

Overall, engaging Ubuntu perspective, the Participatory Development Process demonstrated the extent to which Themeli community members were empowered. The action group members were involved at every stage during the course of the project. Not only were they consulted on all issues, but they also participated in *Stokvel* constitution writing skills and training sessions aimed at empowering them. Thus, the action group members were not only given encouragement so that they gained confidence, they also acquired knowledge to be able to make choices and informed decisions about the present and future aspects of their personal and community life as a collective. This is the overarching essence of *Ubuntu* (Phiri, 2008, p. iv. The empowerment process also enabled action group members to negotiate development issues on behalf of the entire parent body. As a result, the action group members in particular, acquired life skills, knowledge and confidence through their participation in the process.

CONCLUSION AND MANAGEMENT IMPLICATIONS

The overarching lesson learnt is that to harness local potential, after engaging people in capacity-building efforts, it is important and possible to allow them to make informed decisions and choices about their situations because it enhances the sustainability of the envisaged community development intervention, allowing people to take control of their lives in meaningful ways that are respectful to their respective cultural belief systems. Given the preceding presentation, it seems reasonable to conclude that the elements of participatory development process may be summarized as follows:

- It is a learning process whereby knowledge is acquired through interaction between individuals, groups and institutions and involves internal mobilization of resources.

- It is an unpredictable process moving from the known to the unknown and should be an empowering process whereby people gain experience through the facilitator or development worker and through collective action. It is therefore a collective process.
- It involves the identification of problems and needs by participants together with facilitators and the forming of partnerships.
- Premised on the notion of Ubuntu, it is a reflexive, dialogical and local-culture sensitive process in its very nature.
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PLAY AS A MEDIATOR OF INNOVATION ACTIVITIES IN SMALL AND MEDIUM SIZE ENTERPRISES

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ABSTRACT

In this article, we discuss the introduction of elements from the world of play – in particular, collaborative games – and experiential learning in the methodological approach of a new innovation management technology named JOIN – JOgo da INovação (Innovation Game). We analyze the initial impacts of the use of this new language on the implementation and diffusion of innovation activities in four Brazilian SMEs, two in traditional industrial sectors, one in engineering services and one in IT. So far, the experience reveals the method favours creativity and engagement and contributes positively with the quality of the solution proposed and the time spent in ideation.

Keywords: Innovation, management technology, creativity, play, tools

INTRODUCTION

The main goal behind this research is to contribute to the diffusion and systematization of innovation activities in small and medium size (SMEs) companies in Brazil and elsewhere, whether working in traditional sectors or in high tech industries. This article discusses the methodological approach integrated in a new innovation management technology named “JOIN - JOgo da INovação” (innovation game), developed in the Instituto Euvaldo Lodi (IEL/BA), a member institution of the Industry Federation of the State of Bahia – Brazil, sponsored by a Public Announcement (FINEP, 2014). The JOIN project started in September 2012 and was brought to market in July 2013. The technology components include enterprise social software, a reference book, a set of visual tools and innovation games, training program, consulting and a website. Since its launching, JOIN has been adopted by 40 SMEs in the State of Bahia and has been transferred to another sister institution (IEL) in the State of Pernambuco, Brazil.

The founding premises of JOIN are (i) the assumption that innovation cannot be reduced simply to technological improvements in products and processes but includes impacting novelty in marketing, management and business models and (ii) innovation is a human-centred collaborative activity, anchored in creativity. The particular issue concerning JOIN is the language and application method used to facilitate diffusion among entrepreneurs and within the firm, a challenge not yet satisfactorily solved by analogous technologies. The method refers both to how to implement JOIN in the organizational environment and to how to make it work in the everyday life of the company. With respect to the methodological approach, the project group started from the belief that innovation is in essence a creative activity. So, if it is important to stimulate creativity to make innovation happen in the company, it seemed necessary to include the creativity component in the technology for it to deliver value as an organizational innovation. According to Huizinga (2002), creativity

expresses itself freely in the fields of play. In this article, we explore the world of play and experiential learning to analyze the methodological approach behind JOIN and discuss its potential in the effective diffusion and systematization of innovation in SMEs, based on multiple case studies. We believe that this research brings some useful insights to innovation management for researchers and professionals in different cultural environments.

LITERATURE REVIEW

Innovation, Creativity and Play

The very first challenge an innovation management technology faces is to fight the pre-conceived belief that innovation refers only to the development and application of scientific and technological content to new products and processes – the so called technological innovation. This limited understanding of innovation has been pushing the absolute majority of Brazilian SMEs in traditional sectors, both industry and services, away from the vibrant innovation economy. They refrain from investing consistently in innovation management and HR development in related disciplines a lot because they believe “innovation is not for them”. Dealing with SMEs, it is essential to emphasise that innovation is not limited to high tech initiatives but covers the implementation of new or significantly improved products (good or service), and processes, new marketing methods – including changes in the product design and packaging, and new organisational methods in business practices, workplace organisation or external relations (OCDE, 2005). Moreover, it is important to highlight that innovation is not necessarily the implementation of revolutionary novelties: it also describes simple incremental changes which provoke meaningful impact on the business performance: novelties which companies implement on their continuous effort to improve their products, processes, methods and competencies to keep being competitive. Furthermore, the user-centric approach proposes that innovation does not refer to the mere introduction of novelties in the economic environment but must 'generate new value for the user'. The focus on value creation emerges as a way to minimize the risk of rejection inherent in innovations. The user-centric approach (Kelley & Littman, 2001) appears to be a potentially valuable perspective on the universe of SMEs, an orientation to innovation effort aimed at offering customers and users in general more efficient, effective and valued solutions.

This broad understanding of innovation leads to the definition of innovation activities as all scientific, technological, organisational, financial and commercial steps which actually, or are intended to, lead to the implementation of innovation. So, innovation activities go beyond formal R&D and include “a number of activities such as later phases of development for preproduction, production and distribution, development activities with a lesser degree of novelty, support activities such as training and market preparation, and development and implementation activities for innovations such as new marketing methods or new organisational methods which are not product and process innovations. Innovation activities may also include acquisition of external knowledge or capital goods that is not part of R&D” (OCDE, 2005, p. 18). From this broader perspective, innovation and innovation activities are more familiar to SMEs managers who are usually able to recall innovation efforts they have experienced and their impact on the organizational environment and on the business. This new look on innovation frequently calls attention to the relevance of developing innovation management capabilities.

Overcoming this cultural barrier seems to require a new communication approach. Traditional lectures and workshops seem not appropriate to handle this challenge. Furthermore, field research reveals that previous initiatives on the innovation management field by local consultants and consulting firms had not succeeded for reasons which include: (i) traditional top-down method; (ii) low flexibility, highly prescriptive solution; (iii) lack of IT support; (iv) no integration of employees during program structuring; (v) too complex and difficult to visualize the whole proposal; and (vi) lack of support during implementation phase. An innovative way to talk about and handle innovation management is needed to reach local SMEs and deliver real value. The traditional approach centred only on the consultant, the entrepreneurs and the C-level team does not seem to favour diffusion and workforce engagement.

The project team was convinced the key issue of the project was not the conceptual base of the technology, since there is a dense and systematized body of knowledge on the subject (Fagerberg, Mowery & Nelson, 2004; Stal et al, 2006; Tigre, 2006; Moreira & Queiroz, 2007; Tidd, Bessant & Pavitt, 2008; Reis, 2008;

Zawislak et al, 2012); the real challenge was methodological: the *how* and not the *what*. Research efforts helped build the definition of innovation behind JOIN: innovation as an organizational orientation (Siguaw, Simpson & Enz, 2006) focused on the continuous and systematized search and/or development of new or significantly improved solutions – products, processes, marketing or organizational methods - which are better than the choices available or in use, to better solve users' problems, needs and desires, whether they are external or internal users. In this sense, innovation constitutes a managing style, a way to face and overcome the challenges that configure the day-to-day life of SMEs. Although relevant, product innovation is not the key for success in the long term: more relevant is the organizational capacity to generate and implement innovations of different types on a daily base; the firm ability to adapt and respond to opportunities and threats, strengths and weaknesses (Ibidem).

The project team focused then on building a solution which was (i) easy to implement, i.e.: easy to communicate, easy to customize and easy to be appropriated by those who interact in the organizational environment; and (ii) broad in reach, i.e.: which embraces all types of innovation - not only product and process – and can help SMEs develop an innovation orientation, defined as “a knowledge structure composed of a learning philosophy, strategic direction, and transfunctional beliefs within an organization that define and direct the organizational strategies and actions toward specific innovation-enabling competencies and processes. These appropriately developed innovation-enabling competencies lead to innovation outcomes, specifically ideal innovation form, type, and rate that, in turn, affect firm performance”. (Siguaw, Simpson & Enz, 2006, p.1)

To support the gradual consolidation of this innovation orientation, the solution should help SMEs implement and run a structured, procedural and systemic set of activities, inherent to the whole company and not only to a specific functional area. The project team needed to identify a methodological approach which would favour both the implantation of the technology, and the effective conduction of innovation activities in the organizational setting. After all, the more instable the environment the more creative and innovative the SMEs must be to survive and perhaps expand.

The team concentrated on investigating the genesis of innovation. Since the implementation of a new management technology is an organizational innovation itself it sounded reasonable to learn how innovations are born to help JOIN bloom in SMEs. According to Zawislak (apud Tidd; Bessant; Pavitt, 2008), to innovate, the enterprise captures information in the competitive environment, combines it with its own knowledge and technology, applies a good amount of creativity to this mix and develops new valuable solutions which maintain or increase its market share in a profitable way. *Innovation is the exploration of new ideas; the ability to transform ideas and knowledge into better products, processes and methods; the ability to adapt and survive in a changing environment. Innovation depends largely on the firm ability to find new ways of doing things to gain strategic advantage* (Tidd, Bessant & Pavitt, 2008). In the universe of SMEs, heavily constrained by lack of resources, 'finding new ways' implies finding creative solutions to compensate for the shortage and the difficulty of access to tangible and intangible resources, solutions that contribute to improving the company's performance in the market. Innovation is therefore an eminently creative activity. It takes creativity to access, disaggregate and combine ideas, information, knowledge, concepts, technologies, materials etc. in an effort to propose better solutions to society. It seems necessary to stimulate the exercise of creativity in the workplace for innovation to happen. Studies on the nature of creativity highlight that we all have creative ability and its use is a matter of decision and practice (Sternberg, 2006; Kelley & Kelley, 2012). Creativity, which is easy and fluid in children, is gradually inhibited throughout life by the restrictive practices enforced in schools, organizations, at home etc. (Ibidem). Creativity tends not to flourish in very controlled and serious environments.

In the classic *Homo Ludens*, Huizinga (2002) points out that creativity expresses itself freely in the fields of *play*. When involved in a game, the player is transported to a parallel universe in which the rules and restrictions of the real world are temporarily suspended and new behaviours - conventionally unwanted and inhibited - are allowed and often encouraged. This freedom to think and act in the safe environment of a game facilitates the connection of seemingly distant and unrelated contents (Mainemelis & Ronson, 2006), an important component of innovation.

Huizinga (2000) argues that *play* refers both to a way of life and to a specific activity. *Play* is a primary category of life; it is not exclusive to human beings: animals also play. *Play* is older than culture; it is the creator element of culture. *Play* is a space of trial, meaning and learning. Ideas, words, art and sports are not born of

scientific or logical thinking but of a creative act of "conception". One of the most significant aspects of *play* is that it is fun. Another point is that *play* is connected with no material interest and no profit can be gained from it. Huizinga (2000) identifies two distinct ways of life present in the history of civilization: *play* and *seriousness*. But *play*, he says, does not exclude seriousness; on the contrary, it includes it. There are extremely serious games. Any game, both for children or adults, can be played within a full spirit of seriousness. In the sense on a game, *play* refers to an activity or a specific and voluntary occupation, carried out within limited time and space, guided by rules freely consented by the players but absolutely obligatory, having an end in itself, accompanied by a feeling of tension and joy and an awareness of being different from 'everyday life' (Ibidem). From Huizinga we learn that *play* is, at the same time, a behavioural orientation towards a fun and creative way of living and an activity with very specific characteristics which enables the exercise of imagination. Play is the generating element of culture.

Over the past two and a half centuries, the work space and the space of *play* have been drastically separated, and the dialogue between the two worlds, originally two extremes of a continuous scale, has become increasingly more difficult, according to Huizinga (2000). Nevertheless, Mainemelis & Soron (2006) argue that these two worlds are not totally disconnected. They identify two different forms of play in the organizational environment: *play* manifested as a form of engagement with work tasks and *play* as a form of diversion, relaxation. Both modes are sources of creativity, the authors say. As a form of engagement, *play* facilitates the cognitive, affective and motivational dimensions of the creative process, generating positive emotional conditions for the development of high quality work. When *play* is a form of diversion from organizational tasks "it fosters the peripheral socialrelational dynamics that encourage creativity in the first place" (p. 81). By studying the manifestations of *play* in the organizational environment, Mainemelis & Ronson (2006) identify a positive impact of *play* on the completion of work and on the social context in which it is inserted. In addition, neglecting one of the components of human intelligence – creativity (Sternberg, 2005), the company may harm employees' performance and, consequently, damages its own performance.

Drawing on our analysis and the extant creativity literature, we conceptualize play as the cradle of creativity in organizations. We suggest that by temporarily suspending ordinary conventions, structural obligations, and functional pressures, and by encouraging behaviours whose value may not be immediately evident, play stimulates, facilitates, and even rehearses creativity. (Mainemelis & Ronson, 2006, p. 81)

Not only does innovation depend on creativity but it also depends on collaboration. The confrontation and combination of different points of view, originated in different fields of knowledge and practice, tend to favour the generation of better, more sustainable and efficient solutions (Ridley, 2014; Kelley & Kelley, 2012). Combining *play* and collaboration we come to collaborative games (CGs). The main goal of CGs is to have people work together to overcome a common challenge but the real motivation behind them is the pleasure of playing. Since collaboration is the core resource for the group to reach its goal, interdependency makes the other players essential for success (Santos, 2012); interacting and negotiating are critical capabilities the players practice. Researching the impacts provoked by the introduction of CGs on the teaching-learning process, Orlick, McNally & O'Hara (2007) claim CGs constitute good tools to promote social and behavioural changes towards the construction of a more humanized life. The authors say the CGs can develop cooperative behaviour both during and after the games because they allow the players to live successful cooperative experiences and a personal feeling of acceptance which favour the total engagement of participants in the activity and the practice of cooperation beyond it. Deutsch (1949) alerts to the fact that collaboration does not neutralize the competitive and individualistic behaviours inherent to human nature, it just accommodates them towards a common goal. The agonistic element in games partially responds for the good and bad emotions they cause and these emotions are also related to competitive and individualistic needs and interests.

Last but not least, games are a precious resource in experiential learning, according to Kolb, Boyatzis & Mainemelis (1999), for whom learning is the process of creating knowledge through the transformation of experience. The Experiential Learning Theory (ELT) proposes that concrete experiences are the learners' base for observation and reflection, which generate new abstract concepts and possibly new implications for actions. When these implications are tested, they generate new experiences which nurture the learning process. In the learning process, the apprentice repeatedly touches the four phases: he experiences, reflects, conceptualizes and acts. Learning results from the creative tension between concrete and abstract, active and reflective. The authors

argue that the door to enter the process varies according to genetics, life experiences and demands from the environment.

The ELT model portrays two dialectically related modes of grasping experience - Concrete Experience and Abstract Conceptualization - and two dialectically related modes of transforming experience - Reflective Observation and Active Experimentation. [...] According to the four-stage learning cycle, immediate or concrete experiences are the basis for observations and reflections. These reflections are assimilated and distilled into abstract concepts from which new implications for action can be drawn. These implications can be actively tested and serve as guides in creating new experiences. (Kolb, Boyatzis & Mainemelis, 1999, p. 3)

Changing culture is a learning process, which often generates high levels of anxiety, discomfort and psychological insecurity. Many questions arise in this process: What new skills will I need to learn? Will I be able to learn and adapt? What new roles will I play? How will power relations be afterwards? How will my peers regard me? For its transformative nature, changes are seen as threats and, in most cases, face high level of resistance. We must create psychological safety in people to minimize the pain of the change process (Schein, 2010). Schein (2010) recommends starting the process of change acting on a concrete problem that is relevant to the company [how to implement an innovation management technology in the company], from which we can assess the elements of culture that favour or hinder the change and propose objective actions. In this effort, Buckminster Fuller (2013) believes that the use of tools [such as games] favours the learning of new ways of thinking and acting, consisting of important resources in the reconfiguration of organizational culture.

The literature review strongly supports the use of *play and games* as the methodological approach for the diffusion of the new management technology. This alternative method seem to serve various objectives: promote workforce engagement, create experience and facilitate learning, provoke fun and diminish tension caused by change, reduce resistance to change, stimulate creativity and collaboration and also generate concrete ideas for innovations, which reinforces the method effectiveness. This receptive environment seems fertile for the consolidation of an innovation orientation in SMEs. However, as Mainemelis and Ronson (2006) point out, for *play* to deliver its full potential, it is essential that the company take it as an integral part of organizational life and encourage it explicitly.

THE JOIN TECHNOLOGY

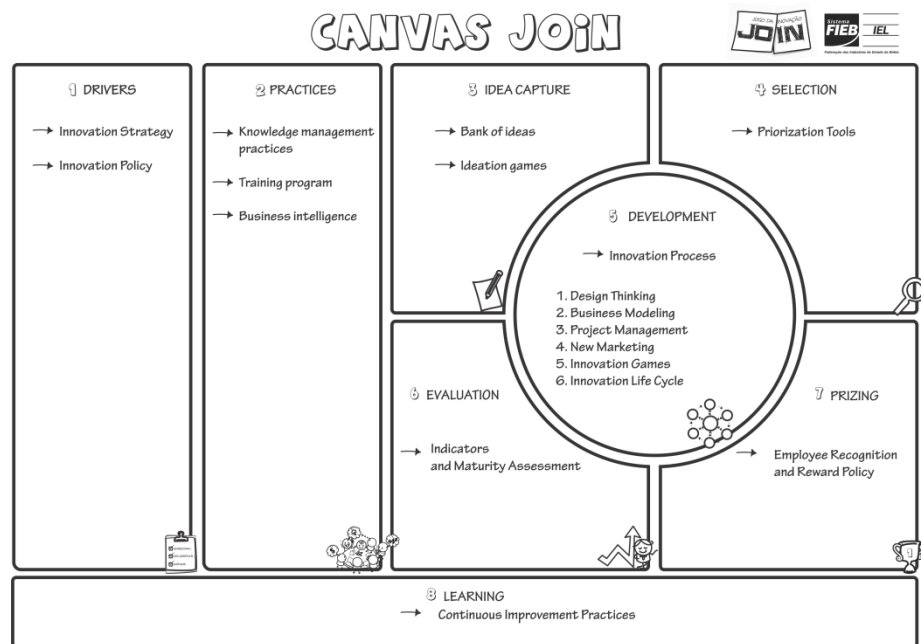
The design challenge of the JOIN Project was to deliver a management technology that contributes to the structuring and systematization of innovation activities, particularly in SMEs – target audience from funders - as a means to leverage their competitiveness. Despite the original target, JOIN seems to be applicable to any size company, since it is a framework and not a prescriptive model. The technology was developed by a group of 20 CNPq (National Council of Research) fellows, from very different areas of knowledge, from administration to design, including economics, engineering and communication.

A management technology itself, JOIN proposes to facilitate the application of academic and scientific knowledge to practical problems of corporate life, providing instruments - tools, games, methods and techniques - that facilitate the effective use of the knowledge embedded. In this sense, JOIN is a means by which something is done so that a certain end is reached, an instrument: a man-made means to an end established by man, following an instrumental and anthropological definition of technology (Heidegger, 2010). According to Heidegger (2007), end and means lie within the scope of technology as well as the instruments, which constitute its main feature. The application of JOIN in the organizational setting is led by an innovation committee of seven to nine people, from different hierarchical level, areas and professional backgrounds, guided by a consultant in the first year. The program covers 100 hours of consultancy and 50 hours of training. Figure 1 shows a visual presentation of the eight building blocks of JOIN.

The manifestation of play in JOIN includes: (i) the language used to communicate theoretical principles – an analogy with the world of football; (ii) aesthetic elements such as colours and sketches; (iii) a KINECT based video game quiz with basic concepts in the area; (iv) innovation and ideation games, both in person and online; (v) working templates which transform complex contents – strategy and project management, for instance – into more accessible and practical issues; and (vi) a gamified recognition and reward program. In

addition, the technology suggests the incorporation of leisure and cultural activities in the workplace, as paths to unleash creativity and promote interaction.

Figure 1: CANVAS JOIN



Source: JOIN, 2014.

JOIN relies on well-known game activities, such as World Cafe (Campos, 2010), Six Hats (Naguel, 2012) and the portfolio offered by institutions such as Innovation Games (Hohmann, 2007) and Luma Institute (LUMA, 2012). In a day-to-day base, the games are used to develop ideas for innovation of different kinds, facilitate collaborative planning and decision making and conveying and consolidating knowledge. The consultants practice the games with the innovation committee and then support them in using them with other players, including employees, clients, suppliers, experts, customers etc., making it easy to bring together different perspectives onto the problem situation.

While developing the technology tools, a particularly rich experience was the transformation of the method known as Design Thinking in a 90-minute collaborative game: the JOIN Match. Design Thinking is an interactive, collaborative and experimental method for generating and validating creative ideas (Kelley & Kelley, 2013; Vianna, 2012; Liedtka & Ogilvie, 2011). It is particularly useful in the early stage of the innovation process known as "the fuzzy front end of innovation". It is a human-centric approach to innovation, based on people, culture, stories and prototypes (Grando, 2012). Design Thinking considers creativity a skill that can be retrieved and developed, by using a well articulated cooperative process of developing ideas (Kelley & Kelley, 2013).

The JOIN Match is structured in five nonlinear steps: Empathy, Problem Definition, Ideation, Prototyping and Testing. The players can always take a step back in front of inconsistencies, lack of information or lack of ideas. These five steps lead developers through two Diverge – Converge cycles. Diverge means to open the mind to new ideas, freeing imagination and gathering the largest possible number of ideas, without editing or censoring them. Converge implies selection, filter, combination and synthesis of the ideas into a creative proposal.

The appropriation of the Design Thinking method by employees seems to favour the participation of the workforce in the company's innovation efforts, which contributes for the culture change. This integration would result from the learning of a well-structured method of developing ideas, able to generate creative solutions that contribute both to overcome obstacles that the company would possibly face during the systematization of

innovation activities, and for the effective implementation of innovations in the economic system. The idea is to give employees a relatively simple tool for the development of creative ideas; a route to think about innovation and the improvement of working conditions: improvement of processes, methods, practices and even the internal environment, potentially able to enrich repetitive, common work in low and medium technology-intensive industries content. It was believed that the conversion of Design Thinking in a game ideation would facilitate communication and appropriation of the concept by employees. Additionally, the effective driving game in the organizational environment should result in other beneficial effects, as seen from literature review.

The JOIN Match is widely used during the technology implementation. Here are some examples of innovations initiated in a JOIN Match: employees and potential customers worked together (i) to develop the concept of a new furniture solution for closets (product innovation) and (ii) to ideate the new store the company planned to open (marketing); employees worked together (i) to design a communication program to improve information flow inside the company (organizational) and (ii) to redesign the evaluating and developing processes of clients' demands for improvement in the company's ERP (process).

DISCUSSION

The analysis presented below is based on the case studies of the eight enterprises which composed the first group of SMEs to join the project, four of which are industrial companies (toys; clothing (2) and furniture) and four are services providers (construction; engineering and project management; IT and equipment rental). Seven of them are mature companies, having been in activity for over 10 years. The 64-hour training program focused on the entrepreneurs started in July 2013 and the meetings in company in August 2013. The research was conducted in August 2014, a point in time when the implementation agenda should have been covered. The field research includes (i) semi-structured interviews with the entrepreneurs, members of the innovation committees, JOIN consultants and an external observer from Darden Business School: a student of the Master Program, taking part in an exchange program called "Global Field Experience"; and (ii) action research, since one of the authors of this paper coordinated the implementation of the technology in four companies of the sample.

The implementation of the technology is organized into two phases, conducted by a consultant and the innovation committee (IC). Phase 1 includes structuring the Drivers and the Practices, and planning the Bank of Ideas and the Learning effort towards continuous improvement - blocks 1, 2, 3, 6, 7 and 8 in Canvas JOIN. In Phase 1, the IC also develops a pilot project to experience JOIN innovation development process - Blocks 4 and 5. The company is opening up for the new. And as the new can cause fear and resistance, the idea is to try it in a relatively safe environment, with a few specific actions involving a small group of people (the IC), as proposed by Schein (2010). It is a chance for the company to experience, learn, see value and then, step by step, multiply and integrate the workforce. Phase 2 is the diffusion phase. The starting point is an event where the company presents the workforce its innovation program and opens the Bank of Ideas with an ideation game involving the entire workforce. Depending on the number of employees, the company can conduct more than one event.

No significant differences could be observed in Phase 1 among the eight companies regarding the difficulty to apprehend and customize the technology content or their response to the content and methodological approach. The interviewees attribute this to (i) the newness of the content and the method; (ii) the instrumental nature of the technology, which facilitates understanding and application; (iii) the incorporation of *play*, which favours learning and produces positive sensations in the group; (iv) the focus on collaboration and workforce integration and (iv) the commitment of the project team. However, we could observe differences in the pace to cover Phase 1: the companies in IT and engineering and project management moved forward faster, which may be attributed in the first case to the nature of the activity, and in the second case, to the organizational capacity to absorb management technologies such as ISO and PMBOK and also generate it.

Seven companies in the sample did the event which triggers the diffusion of the technology in the company. The eighth company was still initiating its activity and all employees were involved in the IC. In all seven cases, there was strong engagement of entrepreneurs and IC members in the preparation and realization of the event, which, in some cases, happened outside the plant. In all cases, a collaborative ideation game was played and the Bank of Ideas was opened. The games were selected according to the level of education of most participants. The goal was to include everyone in a collaborative exercise focused on creating solutions to

organizational problems and/or to the company's products portfolio. The idea behind the activity is to present a technique that favours the construction of innovation concepts, in order to qualify the participation of employees in the company's innovation activities; there is knowledge being communicated through the game, but its full absorption certainly requires repetition. No resistance to participation was observed. Employees engaged in the activity naturally, they acted spontaneously, and the restrictions normally imposed by hierarchy did not seem to affect the ideation process. In general, the participants reported having experienced positive feelings, which could also be observed in facial expressions, laughter and discussions that followed the game. In all cases, the game created a relaxed and fun atmosphere, which seems to favour the introduction of an organizational innovation strongly based on interaction and collaboration. Additionally, many ideas were generated to foster the company's innovation effort in the early stages of diffusion.

With respect to Phase 2, no pattern of diffusion was observed among the sample. Considering the implementation process in all companies is still in the learning phase, we can only present some initial considerations. All companies did lead some of the knowledge management practices planned in Phase 1, with different levels of regularity and structure. All of them faced some difficulty in managing the Bank of Ideas, especially regarding the conversion of ideas into innovations, even the relatively simple ideas. Some reasons pointed out by the interviewees include (i) centralization: the difficulty entrepreneurs face to delegate responsibility and autonomy to the Team Captain, the IC and middle managers to coordinate activities and implement changes; (ii) the lack of confidence in the employees' abilities; (iii) the shortage of human resources and the consequent direct involvement of the entrepreneurs with operational activities – the lack of time issue; (iv) fragile managerial capability; and (v) the urgency to generate revenue, which releases little energy and resources for medium or long term projects. New practices to intensify interaction, knowledge sharing and collaboration were introduced as well as some adjustments to the plans built in Phase 1, an important dynamic in the learning process. All companies declared they incorporated JOIN contents to the way they managed their daily activities.

The consultants believe that the composition of the IC has high impact on the success of the initiative. The IC must conform to the criteria of diversity, especially with respect to hierarchical levels, and be representative of most, if not all, the functional areas. This diversity seems to favour the interaction and conversation across the "silos", which uncovers the contents, values and perceptions that coexist in the organizational environment. Another issue that proved quite relevant to the implementation of the practices refers to the performance of the Team Captain (TC), who is responsible for coordinating the operational tasks of the innovation program and also plays the role of a "motivator", similar to the role of the mediator in online forums. Among the eight companies, two decided to hire someone for the position – interns, in both cases - and the others attributed the role to an existing employee. Most of the TC in the second case reports some level of work overload. The new tasks compete with their routine activities and this competition may restrict the program advance, no matter how engaged the TC is. In both cases, the consultants believe the key issues are the TCs' legitimacy, their autonomy to conduct the required activities, their cognitive and social skills and their enthusiasm for the program. Other aspects of high relevance for the successful implementation of the technology disclosed in the study are: (i) the participation of at least one of the SMEs partners in the IC, which communicates effective support to the program and streamlines decision-making concerning the projects to invest in; and (ii) the autonomy of middle managers to implement the ideas approved by the IC. Failure to implement the approved ideas creates frustration and distrust on the part of employees, which compromises the quality of the environment created by the introduction of play.

The interviewees highlight that the JOIN experience generates positive impacts on people's cognitive, emotional-social and motivational dimensions, with frequent cases of content overflow from the IC to the work environment, even prior to the effective implementation of the technology. The study suggests that the introduction of collaborative games in the workplace (i) impacts positively on people's disposition and motivation to engage in new activities; (ii) stimulates creative thinking; (iii) encourages interaction between people from different areas; (iv) provokes collaboration and (v) facilitates the dissemination of content. These aspects seem to support the construction and consolidation of a systemic structure of knowledge in the company, but they do not guarantee the development of innovation capability. Literature emphasizes that one of the challenges in culture change is to keep engagement and motivation alive. This barrier seems to be even greater in SMEs in traditional sectors, where most positions involve repetitive work with little creative content and low pay. The authors of this study believe that participating in innovation activities is a way to enrich work and can

nurture motivation. But engaging in games and other innovation activities must be voluntary. Imposing creative activities on employees can cause stress, and loss of motivation and productivity, as suggested by the Simpson, Siguaw and Enz (2006). As Kelley and Kelley (2013) argue, creativity is applicable to work of any kind, but its application should consist of a personal choice (Sternberg, 2006).

The core objective of this study was to investigate the potential of a new methodological approach based on the fields of *play* for the implementation and dissemination of a management technology that directly interferes with the organizational culture. The study notices a positive impact, which may be credited to the alleged relations between *play* and the development of soft and hard skills. It seems that every company may interpret, adapt and use the JOIN content in a very particular way, a learning process which results cannot be anticipated. The authors conclude that this new proposal does contribute to overcome the well-studied resistance to change and the difficulties related to the communication and diffusion of new organizational programs, creating a fertile field for future research.

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DECISIONS AROUND ENTREPRENEURIAL ENTRY

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ABSTRACT

We set out to discuss entrepreneurial entry decisions in terms of concepts prevalent in the entrepreneurship literature. We use cost-income logic to identify concepts associated with the individual's cost of resources such as human capital, financial capital and social capital and the income derived from opportunity. We add to this concepts from accounting theory: physical and working capital. With this framework researchers can explain how entry decisions vary according to different industries according to the given entrepreneurial antecedents. We note that profit and opportunity costs are unlikely to be the main drivers of entry decisions. When trade-off logic is used by the entrepreneur, the modest living costs that the entrepreneur will be prepared to incur during the early years of product development and operation is a more adequate determinant of entry decisions. In the case of creative versus existing opportunities the entrepreneur might focus on the upfront financial capital that he/she can risk losing in making a decision to exploit a creative opportunity with little predictable cost-income information. We also identify policy areas that can influence the entry decision.

Keywords: Entrepreneurship, heuristic, decision, human capital, social capital, financial capital, opportunity

INTRODUCTION

Entrepreneurs are those extraordinary individuals that can rescue us from the economic problems like unemployment and introduce us to new products and services that increase the quality of our lives. We realise that such individuals are a boon; and to understand what motivates them we can do well to unpack the blackbox of entrepreneurial decision making.

Current research acknowledges that we cannot assess entrepreneurial decision making precisely. Since precision is not the norm for entrepreneurial decision making, one can model entrepreneurial decision making as a heuristic; this being appropriate since entrepreneurs, being individuals that can tolerate a higher degree of risk than the average individual can, are quite happy to make decisions about the future success of a venture with limited information; and, particularly when pursuing an innovative opportunity that has not been tested before, they accept that the uncertainty of success is par for the course.

From extant research one might derive heuristics for entrepreneurial entry decisions on the basis of models such as affordable loss (Dew & Sarasathy, 2009), utility maximisation allowing for trade-offs between financial and non-financial motives (Croson & Minniti, 2012; Douglas & Shepherd, 2000) and net present value (Campbell, 1992). However, in order to enrich the use of these models to explain the entrepreneurial decision, one needs to relate them more explicitly to concepts used to explain the entrepreneurial event. Entrepreneurs might also use a combination of these heuristics and not any particular one in isolation (Miller, 2007).

We draw on the trade-off and net present value (NPV) perspectives to set up a conceptual framework. Drawing from a perspective of entrepreneurship where an individual exploits an opportunity (Shane & Venkataraman, 2000) to start a new venture, we use cost-income logic to identify concepts associated with the individual's access to resources such as human capital, financial capital and social capital. We add to this concepts from accounting theory: physical and working capital. These concepts derived from the "capitals" are used to describe the cost profile required to exploit an opportunity. The 'opportunity' – another of the concepts that we introduce into a heuristic – is linked to the potential income stream of the new venture.

We seek to develop an entrepreneurial decision making heuristic based on concepts and theories linked explicitly to starting an enterprise by entrepreneurship researchers but not integrated thus far in the manner that we do. We also contribute by enriching the discussion of entrepreneurial entry and the decisions leading up to it. With this framework researchers can delve into the entry decisions according to opportunities in different industries – and even creative versus existing opportunities - according to the opportunity income and the costs of human, social, financial, physical and working capital.

We note the need to model the modest living standards with requisite living costs that the entrepreneur can endure instead of opportunity costs, especially considering that the entrepreneur is prepared to make trade-offs. We note possibility of using the NPV tool to capture the creative opportunity with uncertain outcomes because NPV can model initial product testing costs and other short term losses as well as the long term gains typical of entrepreneurship. Because NPV models the upfront financial capital variable, we get to identify a possible case of affordable loss arising from this heuristic as well as various cases of decisions made on the basis of opportunity costs versus trade-offs.

We begin by reviewing some of entrepreneurial entry decision literature. We then go on to the income-cost framework based on opportunity and ‘capitals’ concepts. We then outline the heuristic and give examples. We end by discussing implications and making a few conclusions.

DECISIONS, MOTIVES AND HEURISTICS

Uncertainty is a defining characteristic of managerial decision making (Foss, 2012; Knight, 1921). The entrepreneur does not know all possible options with their consequences and probabilities. Many entrepreneurs therefore use heuristics: simple decision processes that only use part of the available information (Bingham & Eisenhardt, 2011). Because this strategy ignores some information, it enables taking decisions more quickly, more frugally and/or more accurately than when resorting to methods based on greater information and computation (Gigerenzer & Gaissmaier, 2011).

For analytical purposes, entrepreneurship researchers have chosen to model the entrepreneurial entry decision around the economic motive. This type of modelling facilitates explanations and predictions of entrepreneurial acts as well as policies to encourage such acts (Campbell, 1992; Shepherd, McMullen, & Jennings, 2007). We assume that in most cases entrepreneurs cannot sustain the fulfilment of non-economic motives if they cannot meet their living costs. Thus, a useful heuristic can accommodate the maximum downside in terms of the economic loss that an entrepreneur can bear in order to maintain non-financial benefits such as independence and self-fulfilment.

Entrepreneurship researchers have tended to model the individual's decision upon whether to become an entrepreneur upon a comparison of the expected reward to entrepreneurship and the reward to the best alternative use of his time (Casson, 1982). In order to simplify the model of the decision to become an entrepreneur, the choices are often limited to the individual becoming an entrepreneur or performing wage labour (Campbell, 1992).

Campbell (1992) modelled the entrepreneurial entry decision on the expected NPV of profit from entrepreneurship. If NPV is positive then the individual is expected to start a venture otherwise he/she decides to supply wage labour. However, he did not consider how non-financial costs and benefits impacts the decision to become an entrepreneur. Later, Eisenhauer (1995) modelled the entrepreneurial entry decision on the expected utility gained, which include both prospective income streams and the working conditions as an entrepreneur versus employment alternatives.

Douglas and Shepherd's (2000) decision model extended that of Eisenhauer to link income potential to an individual's ability and entrepreneurial attitudes. They also went on to more fully investigate the working conditions in terms of the individual's attitudes to specific work conditions such as work effort required, risk exposure, and decision-making autonomy. They also argued that individuals might be prepared to relinquish income in exchange for greater independence, achievement, recognition, family security, affiliation and self-

fulfilment (Barba-Sánchez & Atienza-Sahuquillo, 2012; Wu & Li, 2011; Carter, Gartner, Shaver, & Gatewood, 2003; Kuratko, Hornsby, & Naffziger, 1997; Wiklund, Davidsson, & Delmar, 2003). McGrath (1997) argued for the use of real options, particularly technology ventures. The option becomes increasingly attractive if the entrepreneur can approach it through sequential development so that incurring the cost of development for one stage does not irreversibly commit one to the next stage of development. In this way, any losses can be contained.

However, Dew and Sarasvathy (2009) argue that the above models require information that is often not available or difficult to predict when the entrepreneur is faced with an entry decision. This is especially the case when instead of recognising existing opportunities, they are created. In the case where opportunities are created, the upside is most unpredictable. They thus argue for an affordable loss heuristic to be added to NPV and real options heuristics.

More recently, Croson and Minniti (2012) pursue utility maximization to show how an entrepreneur can be willing to accept lower wage outcomes in exchange for psychic benefits – in particular, autonomy. They suggest that the individual's overall utility is the sum of three factors: (1) the net present value of the utility achieved during employment until the time when the employee quits; (2) the net present value of the utility achieved during self-employment, until the time the now self-employed individual retires; and (3) the utility value of the wealth accumulated from both employment and entrepreneurship.

Croson and Minniti (2012) have developed a useful model to account for the accumulation of both non-financial utility derived from job conditions such as autonomy and financial utility derived from wealth, based on the individual's decision of when to transition from employment to entrepreneurship. However, modelling the autonomy benefit in an objective manner remains a challenge. Entrepreneurs are often willing to live a modest standard of living when building up their business; their decisions are likely to be informed by the modest living costs they incur rather than opportunity costs from more profitable alternative opportunities or high earning jobs. This will be particularly applicable to those entrepreneurs who emphasise psychic or non-financial benefits; they are unlikely to use the opportunity cost logic of greater profits for alternative opportunities or high paying employment. One solution is model the autonomy benefit by assuming that its value can be approximated by the difference between the opportunity cost and the modest living cost the entrepreneur will accept.

We also note that Croson and Minniti (2012) rely on an NPV analysis to unravel the entrepreneur's decision. An analysis based on NPV estimation is important since it allows us to consider entrepreneurial processes beyond exploiting simple imitative opportunities to actually creating opportunities. Opportunity creation processes like innovation in particular involve a number of costly trial and error exercises over a number of years (Barreto, 2012; Sarasvathy, Dew, Velamuri, & Venkataraman, 2010). Moreover, innovation involves the exploration of new untested approaches that are likely to fail. Well known opportunities that already exist also face early losses whilst penetrating the market and building a customer base. With the estimate based on the entire planning horizon chances are that the eventual income will more than compensate for the costs. The NPV estimate is useful since it accounts for tolerance of early failure and reward for long-term success.

Casson & Wadeson (2007) argues that when modelling entrepreneurship, it is easier to focus on the set of projects, which is objective and exogenous, rather than the set of opportunities, which is subjective and endogenous. "...a project involves a stock of resources which are committed to a particular use over a considerable period of time. These resources include land, labour, and physical capital such as office and factory buildings, plant and equipment. Setting up a project may incur substantial sunk costs: it involves a commitment of resources which cannot be recovered if the project is abandoned later. ...The benefits generated by a project are usually realised only after many of the costs have been incurred (Casson & Wadeson, 2007: p290). Whilst the notion of an opportunity set has intuitive appeal, it lacks the objectivity and exogeneity that is required to make it really useful for analytical purposes." (Casson & Wadeson, 2007: p289). In any case, entrepreneurial decisions are often based on the perpetual exercising of cost-income logic at varying levels of consciousness (Shepherd et al., 2007). Modelling opportunities as projects is thus appealing.

One evaluates the NPV of a project by estimating a series of cash flows over a number of years. Cash comes in through the income generated by a particular project associated with an entrepreneurial opportunity. Cash goes out because the entrepreneur incurs costs when utilising the resources that are necessary to implement

the project (Sarasvathy, Dew, Read, & Wiltbank, 2008). The individual has numerous resources to exploit an opportunity, available both personally and through access from other resource providers; in some cases this might be the time of the person involved, but in other cases physical resources, such as offices and IT systems, can be tied up as well.

INCOME AND COSTS: AN OPPORTUNITY-CAPITALS FRAMEWORK

Entrepreneurship occurs when individuals or firms exploit opportunities for commercial gain (Shane & Venkataraman, 2000). An individual can access all the resources – social, financial and human capital – at her disposal, but without an opportunity to target with these resources, an entrepreneurial event cannot take place (Short, Ketchen, Shook, & Ireland, 2009). While the opportunity brings in income, the resources incur costs.

A conceptual framework for decisions and related economic incentives to implement entrepreneurship projects can be developed with commonly used concepts in the entrepreneurship literature instead of those in the accounting literature. While an “opportunity” is linked to situational factors, resources and its associated costs are linked to the individual entrepreneurs (Shane & Venkataraman, 2000). Entrepreneurs cost resources based on both those at hand and those that must still be marshalled to exploit the opportunity under evaluation (Haynie, Shepherd, & McMullen, 2009). Generally, one can relate the “opportunity” to the income generated from exploiting it; and the resources or “capitals” with the costs of exploiting an “opportunity”. Concepts in the entrepreneurship literature that depict these resources include human capital (Carroll & Mosakowski, 1987; Davidsson & Honig, 2003), financial capital (Evans & Leighton, 1989) and social capital (Dubini & Aldrich, 1991). On the other hand the cashflow projections, from which one can estimate NPV, categorise income and costs according to operating, investing and financing activities (FASB, 1987).

We associate only costs with “capitals” even though accounting theory also recognises the income generated from cash flow investing activity like the sale of assets such as land, building, equipment, and marketable securities. The entrepreneur is unlikely to dispose of assets in the near term of the project.

Cash is raised from investors and/or borrowed from lenders. This is categorised as a financing activity in accounting theory. We link this activity to the concept of financial capital used in the entrepreneurship literature. Cash is also used to buy assets and build inventory. This is categorised as an investing activity in accounting theory. We link this activity to the concept of physical capital. This concept has not been used in entrepreneurship literature since financial capital often translates to physical capital when machinery and other equipment is purchased. Established businesses sometimes participate in investing activities such as the purchase of marketable securities, loans made to suppliers or received from customers, payments related to mergers and acquisitions, and dividends received. We assume that a new venture will not be involved in such activities making physical capital an adequate concept to represent investing activities in “hard” assets. These assets and inventory enable the new venture’s operations to generate cash, which pays for expenses and taxes. A major expense is on management, the workforce and consultants within the entrepreneur’s network. Thus we can link operating activities partly to human capital and social capital. There is also the cash related to the purchase of raw material which we associate with working capital. Operating activities also generate cash income which we link to the concept of “opportunity.” The cash generated by the exploiting an “opportunity” is returned to the lenders and investors and some of it is retained. This latter activity is associated with financial capital. The inflow related to the sale of equity securities, issuance of bonds and notes as well as loans to enable start-up is captured as financial capital at the start-up phase which is often subtracted from the present value of future cash flows to arrive at the net present value or NPV.

AN ENTREPRENEURIAL DECISION HEURISTIC

Entrepreneurs are willing to tolerate early failure when they can foresee rewards for long-term success (Manso, 2011). Earlier we argued that one can use the NPV tool to integrate the affordable loss logic with the logic of a trade-off between increased autonomy from self-employment and the generally higher income that traditional employment offers.

The NPV must be evaluated over the planning horizon from beginning at time t and ending at time T and discounted with an appropriate discount rate (r) representing the potential entrepreneur's time value of money. As we noted earlier, aside from financing costs there are also the costs of human, social, physical and working capital to consider. One needs to consider the risk faced by the entrepreneur in generating an income from the opportunity (Opp_t). We thus make provision for the probability (P_o) of the opportunity successfully generating an income for the entrepreneur. Finally the NPV estimate is based on its accommodating the upfront start-up or investment costs (FC_0). In addition, HC , SC , FC , PC and WC represent the costs of human, social, financial, physical and working capital resources respectively. HC_{res} is the cost of all human capital except that of the entrepreneur.

We model the entrepreneur's human capital cost (HC_e) separately to account for the trade-offs that the entrepreneur is willing to make. For some entrepreneurs this can represent the opportunity costs of high earning paid employment. For others, using the trade-off logic, this can represent the regular income an entrepreneur is willing to draw to cover modest livings costs, at least during the early years of the venture. Thus unlike Campbell (1992), we do not model the risk of gaining alternative wage employment. We build the entrepreneur's human capital cost into the operating costs of the venture since this cost will be recurring – the entrepreneur would like to gain income annually. The t subscript in the abovementioned symbols represents the unit of time. Thus,

$$NPV = \sum_{t=1}^T \left[\frac{(P_o \cdot Opp_t - (HC_{res} + HC_e + SC_t + FC_t + PC_t + WC_t))}{(1+r)^t} \right] - FC_0 \quad (1)$$

There are three possible outcomes of an NPV analysis viz. breakeven (BE), loss (-) and economic profit (+) with numerous possible cases (Jaywana, 2013) considering variables such as Opp , HC_{res} and SC , HC_e , FC , PC , WC , FC_0 . While affordable loss logic be modelled by the upfront start-up or investment costs (FC_0), trade-off logic can be modelled by the entrepreneur's human capital cost (HC_e). We assume that in the ordinary, the entrepreneur will draw a wage where his/her own human capital costs are equivalent to the opportunity cost – a high paying job, for example. The minimum wage the entrepreneur can draw will depend on his/her living costs. Of course, we assume that trade-off logic will motivate such decisions. Thus, if we assume that there is a lower threshold of earnings from the venture that the entrepreneur – particularly one motivated by non-financial utility – cannot afford to go beyond: his/her living costs, an economic model can serve us well as an entrepreneurial entry decision heuristic.

IMPLICATIONS AND CONCLUSIONS

We set out to discuss entrepreneurial entry decisions in terms of concepts prevalent in the entrepreneurship literature. We build on entry decision heuristics such as trade-off (Croson & Minniti, 2012) and net present value (NPV) (Campbell, 1992). Drawing from a perspective of entrepreneurship where an individual exploits an opportunity (Shane and Venkataraman, 2000) to start a new venture, we use cost-income logic to identify concepts associated with the individual's access to resources such as human capital, financial capital and social capital. We add to this concepts from accounting theory: physical and working capital. These concepts derived from the "capitals" are used to describe the cost profile required to exploit an opportunity. The 'opportunity' – another of the concepts that we introduce into a heuristic – is linked to the potential income stream of the new venture.

Our opportunity-capitals framework enables researchers to link the cost-income logic of entrepreneurial entry decisions to concepts steeped in the entrepreneurship literature. An "opportunity" in our framework is an unexploited project that has the potential to generate goods or services (Casson & Wadeson, 2007). These goods or services can be sold in the market to generate an income. Thus it is not inherently profitable like those 'situations' where new goods and services can be sold at greater than their costs of production (Shane & Venkataraman, 2000, p. 220). The potential income stream from the opportunity can also include non-financial benefits such as the autonomy that the entrepreneur derives from operating his/her own venture.

For analytical purposes a heuristic based on an economic model will serve us well to model entrepreneurial entry decisions. For this to be likely, we assume that the entrepreneur cannot go beyond a lower threshold of earnings from the venture to cover his/her minimum living costs in order to sustain a basic standard of living. Non-financial motives are unlikely to be dominant for an entrepreneur that cannot meet his/her basic

living costs. He/she will not be able to sustain such non-financial benefits if living costs cannot be met. For an economic model, one might model the autonomy benefit by assuming that its value can be approximated by the difference between the opportunity cost and the modest living cost the entrepreneur will accept, at least in the initial years of operating the venture. Entrepreneurs – particularly those that emphasise psychic or non-financial benefits – are often willing to live a modest standard of living when building up their business; their decisions are likely to be informed by the modest living costs they incur rather than opportunity costs from more profitable alternative opportunities or high earning jobs.

In order to exploit an opportunity, one incurs costs. These costs are associated with “capitals” such as human, social, financial, working and physical capital. With these concepts we can pinpoint antecedents of entrepreneurship that drive the entrepreneurial decisions to exploit the different opportunities, in different industries or countries for example. Physical and financial capital costs will drive the decision to exploit opportunities in mining or manufacturing but not for services such as management consulting and auditing. Social capital might be a cost driver for exploiting opportunities in the government sector more than in the private sector in some countries (Aidis, Estrin, & Mickiewicz, 2008).

If the income from the opportunity exceeds the costs incurred then the entrepreneur can make a profit. It is often assumed that the entrepreneur will make the decision to enter based on profit. However, we have used the affordable loss heuristic (Dew & Sarasvathy, 2009) to show this is not always the case. By assuming that the entrepreneur builds in his/her own human capital or opportunity costs into the operating costs of the venture, we show that the entrepreneur can make the entry decision as long as the operating costs breaks even with opportunity income. Should upfront financial capital be invested into the project, and the entrepreneur still decides to go ahead based on the operating breakeven then it is likely that an affordable loss heuristic is being used. The entrepreneur decides to risk the investment of financial capital as long as he/she can recoup his/her human capital or opportunity costs.

Based on the trade-off heuristic the entrepreneur might even accept a wage from the new venture that is below his/her opportunity costs. The entrepreneur is willing to trade-off a portion of income for non-financial benefits (Croson & Minniti, 2012; Douglas & Shepherd, 2000). Thus even opportunity cost models are not always applicable. Miller (2007) has suggested that the entrepreneur might use a toolbox of heuristics rather than a single heuristic. For analytical purposes, we suggest that this trade-off between income and autonomy can be linked to the decrease in the entrepreneur’s human capital cost. We suggest that the minimum wage the entrepreneur will accept is equivalent to a modest living cost – to cover household expenses, bond and medical aid among others. Thus the trade-off can be quantified as opportunity income equivalent to the entrepreneur’s human capital cost less his/her living costs.

Our framework enables policymakers to relate cost and income drivers behind the entry decision to one to particular policy areas. Extant research has tended to link policy areas to personal income tax, business taxes and other fiscal incentives, social security discrimination, administrative burdens, labour market regulation and bankruptcy legislation (Hoffman, 2007). Our conceptualisation of the entry decision heuristic locates a broader range of policy areas linked to the opportunity itself and resources such as human and social capital as well as financial, physical and working capital. For instance, we suggest that labour market regulation influences the costs of access to human capital and even the opportunity cost of the entrepreneur’s own human capital.

Future research can use institutional theory to understand the differences in the reward/incentive structure (Baumol, 1996; North, 1990) of economies. Institutional differences between developed and developing economies can be linked to the opportunity-capitals framework. In addition, it will be useful to test our framework on different industries to identify differences in cost drivers according to the given entrepreneurial antecedents. It will also be useful to test the argument that living costs is a more adequate determinant in entry decisions as opposed to opportunity costs when a trade-off logic is used by an entrepreneur. Finally, one has to test the framework on creative versus existing opportunities. For instance, the entrepreneur might focus only on the upfront financial capital that he/she can risk losing in making a decision to exploit a creative opportunity with little predictable cost-income information.

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BUSINESS INNOVATION AS PROFIT APPROPRIATION STRATEGY FROM MERGERS AND ACQUISITION

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ABSTRACT

Mergers and acquisitions are effective strategies for incorporation of complementary assets decreasing economic risk of losses in profit from innovation. We use Capital Asset Pricing Model (CAPM) to measure economic risk in a sample of big, open capital companies, listed in Sao Paulo (Brazil) Stock Market (BOVESPA), pertaining to innovative segments of the economy, in the period 2009 to 2013, before and after the merger/acquisition. Results demonstrate that economic risk of acquiring companies did not decrease after merger or acquisition. Major conclusion implies that incorporation of complementary assets from merger/acquisition brings benefits if generating internal synergy towards increasing the ability to better position the innovation in the market.

Keywords: Business innovation; complementary assets; merger and acquisition

INTRODUCTION

The belief that innovation leads necessarily to higher business profit is not correct, because nothing would guarantee a successful commercialization of innovation (Rodrigues et al., 2013; Teece, 2010; Teece, 1986; Williamson, 1992). Mergers and acquisitions are strategic advantages to complementary assets acquisition, because they allow reaching the latter quicker and in a safer way than developing assets internally, or accessing them through strategic alliances. Firms' integration, through mergers and acquisitions, could be of vertical or horizontal nature. Horizontal integration refers to mergers and acquisitions among companies in the same market, in general, rivals. Resulting coupling targets at synergy generation, scale economy and competitive advantages that would leverage profit of the new company. Vertical integrations happen when mergers and acquisitions run between companies in distinct phases of the production chain in the same industry, aiming at production verticalization and making the company much more autonomous and independent.

In any case, integrations that strengthen the company with complementary assets reduce their exposure to opportunistic partners or commercial rivals. In addition, production verticalization, through mergers and acquisition, reduce firms' market uncertainties. This happens because, when replacing market by internal organization, departments exchange much information and this kind of information happen to be more accurate and trustful than those gathered from commercial partners and suppliers (Helfat & Teece, 1987; Teece, Armour, & Saloner, 1981). Quality information flows constitute a major input to predict future events (Arrow, 1975; Teece et al., 1981).

Theoretically, while decreasing economic risk of the firm, determined by CAPM model (Capital Asset Pricing Model), the integration (vertical or horizontal) should reduce costs of fund raising and a firms' total cost. A fall in costs would be desirable, as it would guarantee greater leeway to firms establish its price policy. In this case, firms could adopt low price strategies implying many effects, such as, blocking the entrance of imitators to market, protecting both the control and the innovation profit capacity of the firm (Helfat & Teece, 1987).

Considering this scenario, in this work we apply the method used by Teece et al. (1981) in a sample of Brazilian companies listed in the Stock Market of Sao Paulo and belonging to a highly competitive market segments via innovation – IT, Telecom, Chemistry, Petrochemistry, Drugs and similar – that merged or acquired in the period ranging from 2000 to 2013. In this study, we try to answer the following research question: what would be main effects, resulting from mergers and acquisitions, on economic risk of Brazilian enterprises that run in innovative markets.

CAPM Model and the Measure of Economic Risk to the Firm

In finances field, the concept of economic risk refers to the possibility of occurrence of variations in returns from a specific investment (Woiler and Mathias, 1996). Therefore, as bigger it is the returns' variance, relatively to its expected value, as bigger it will be the investment risk (Ross, Westerfield and Jaffe, 2002). Economic risk of a company's business can be reduced through diversification of projects portfolio or products. The reason is because of distinct projects do not move within the market in the same direction, that is, do not hold the same market reaction. Therefore, they could show positive as well as negative returns. So, diversifying portfolio may assure an average positive return from market, by compensating positive and negative variances and eliminating a parcel of the total economic risk. This process is called "diversified risk" (Assaf Neto and Lima, 2011). The same rationale is applicable to market shares portfolio. Diversifying the portfolio of shares will decrease the degree of variability on the total return of the investment, and so decreasing the level of economic risk.

The variance of returns to which a diversified company's portfolio is exposed to a set of factors that make returns from all projects or product to move in the same direction, that is, to undergo the same stimulating or discouraging factors. These are of macro or meso economic order factors and may affect the economy in the national, or in the sectorial level as a whole. These risks are inherent to the economic context of the business (macro and meso economic order), they can not be eliminated through the diversification of the company's portfolio strategy and are called systemic risk (Assaf Neto and Lima, 2011; Ross et al. 2002). CAPM model, from Sharpe (1964), Lintner (1965) and Mossin (1966), considers that investor are rational individuals, who diversify their portfolio of project/products (or shares) to a such level that only the systemic risk becomes relevant (Samanez, 2009; Teece et al., 1981), that is, the risk literally out of the investor hands. The subjacent idea to the CAPM model is that the return of an asset with risk be equal to the rate free risk, plus a premium to its holder regarding the economic risk. In short: *Return = rate free risk + premium for the risk*

The model can be expressed mathematically as:

$$R_i = R_f + \beta_i[R_m - R_f] \quad (1).$$

Where:

R_i = return rate of Asset i ; R_f = Return rate of Assets rate free risk (In Brazil, SELIC index)

R_m = Profitability rate of a portfolio of shares highly diversified, representing the country economy (In Brazil, BOVESPA index); $R_m - R_f$ = Market premium risk, meaning the difference between the yield of the market portfolio (stock market = Bovespa index) and the rate free risk (Selic index); β_i = Level of sensitivity of the Asset i to the market premium risk.

Statistically. Beta of an asset is calculated as a covariance of assets returns and market profitability (Cov_{R_i, R_m}), divided by market variance (var_{R_m}). It is represented by the following equation (Ross et al., 2002; Samanez, 2009)

$$\beta_i = \frac{Cov_{R_i, R_m}}{var_{R_m}}$$

Covariance (Cov_{R_i, R_m}) is a combined measure of variance between reurns of assets and Market profitability. Risky assets, whose returns oscilation is higher than market portfolio stock (Bovespa index) hold $Cov_{R_i, R_m} > var_{R_m}$, giving betas greater than 1. The reciprocal is also true, since less risky assets, show less ethereal returns than the market portfolio stock, show $Cov_{R_i, R_m} < var_{R_m}$, giving betas smaller than 1. Therefore, the greater the beta is, the greater will be the level of risk of the asset. In addition, besides to inform the risk level of the investment, beta coefficient demonstrates the sensitivity of returns of an asset to the market premium risk (Assaf Neto and Lima, 2011; Samanez, 2009). In the case of a highly risky asset, showing a 1.8 beta value, for instance, when market premium risk increases 5%, we may expect an increase in the return of the asset around

9% (1.8 x 5%). If market premium risk falls 5%, on the other hand, we may accordingly expect its reward will fall 9% (Samanez, 2009).

Although, apparently the CAPM is a simple model, expressing mechanically the relationship between returns of an asset and the associated market premium risk, the model scope is far more ampler (Helfat & Teece, 1987; Rosenberg & Guy, 1975; Teece et al., 1981). Market premium risk, that is, the difference between yield of stock market and the **free risk rate** originates in the expectations of investors upon macroeconomic variables, such as: inflation, interest rates, exchange and National Gross Income growth rates. In addition, meso-economic and sociopolitical variables, such as: international commodities price, petroleum prices, electrical energy, political cycle, domestic and international conflicts, etc. must be taken in to account ((Rosenberg & Guy, 1975; Sharpe, 1964). All these factors concur to market uncertainties (R_m swing) and it is possible to anticipate the effect of each one of them on future returns and on β behavior of any share or specific project.

Let us consider, for instance, a petroleum equity fund. Petroleum shock coming from abrupt decreases in the offer of the oil, will reflect proportionally higher demand. At the same time, events related to inflation will have proportionally lower effect on returns from this fund, as compared to swings in economy as a whole. In other words, fluctuations in returns from this fund, in response to an oil shock, will probably be higher than fluctuations caused by macroeconomic and sociopolitical factors. Additionally, these factors would cause fluctuations in return from this fund more intense than those that inflation would. Therefore, before the forecasting of an oil crisis, β estimation for this fund should be higher than the estimation before forecasting of increases in the inflation (Helfat & Teece, 1987; Rosenberg & Guy, 1975; Teece et al., 1981). One can notice, from this example, that three distinct parameters determine the level of systemic risk (β):

- a) The response coefficient of share j to the event i , which means the contribution to the event i to variance in returns of the share (represented by Y_{ji});
- b) The contribution of the event i to market variance (represented by V_i); and
- c) The probability of occurrence of event i (represented by P_i).

Since Y_{ji} and V_i represent, respectively, measures of the share and market variances, then $Y_{ji} \times V_i$ means the combined variance, or covariance between the returns of the share and of the market. The result of $Y_{ji} \times V_i \times P_i$ means the expected covariance measured between the returns of the share and of the market. Therefore, we can rewrite the traditional beta equation:

$$\beta_i = \frac{Cov_{R_i, R_m}}{Var_{R_m}} \quad \text{as follows: } \beta_i = \frac{\sum Y_{ji} \times V_i \times P_i}{\sum V_i \times P_i}, \quad \text{according (Rosenberg \& Guy, 1975).}$$

Mergers and acquisitions supplementing inexistent complementary assets to a company, help increase the competitive capacity of the company, adding up to the appropriation of profits from innovations and decreasing the risk of rival's appropriation. Besides, complementary assets make a company less dependent on commercial partners who cooperate in sales of innovation, but compete for profit (Teece, 1986, 2006, 2013). The company then can protect herself from opportunistic attitudes such as demands, before antagonistic market contexts, to renegotiate commercial contracts (Teece, 1986, 2006, 2013). In addition, in cases of vertical integration, the flow of information before exchanged straight with market begins to be replaced by intra-department communications, turning then information more complete, precise and trustful (Helfat & Teece, 1987). The quality of information will assure to the company higher levels of forecasting on future events and be prepared against adverse effects, decrease bad fluctuation effects on economic returns from investments (Helfat & Teece, 1987; Teece et al., 1981). Because of the ability to make available complementary assets and improve the company capacity to forecast future events, mergers and acquisitions are useful tools to protect companies against bad economic events that would reflect negative swings on profits and on shares return. In terms of the mathematical model of Rosenberg and Guy (1975), this fact is represented by a decrease in the company's response coefficient to the event i (represented by Y_{ji}). Being all things constant, mergers and acquisitions lower the Y_{ji} and decrease the beta coefficient.

Method and Results

Directly calculating the beta coefficient, before and after merger and acquisitions, becomes an inefficient measuring methodology to assure the economic risk variation of a company. The reason remains in the dynamic

nature of the economy and the ever-changing market conditions. In terms of Rosenberg and Guy (1975) model, $\beta_i = \frac{\sum(Y_{jt} \times V_{it} \times P_i)}{\sum V_{it} \times P_i}$, even if merger or acquisition help incorporate vertical integration, lowering the response coefficient (Y_{jt}) of a company, the beta of the company will remain unchanged or could even increase, obliterating the real effect of the integration over the company's systemic risk. The same is true if new market economic conditions induce variances in the market return (V_{it}) to lower, at the same rate and direction, or above proportionality. To solve this problem, Teece et al. (1981) propose the following method:

- (a) Select pairs of companies (A – acquirer); (B – acquired).
- (b) To each one pair, select a pair of companies that did not undergo merger or acquisition, to integrate a control group.
- (c) All the researched companies should be open capital operating in the investment financial market – Stock Market – of Sao Paulo (BOVESPA). Pairs of companies similar to I, are called “control companies”.
- (d) Beta estimation is calculated using Minimum Ordinary Square, through SPSS statistical software, observing the following relationship (Helfat and Teece, 1987):

$$R_{jt} = \alpha_j + \beta_j R_{Mt} + \mu_{jt}$$

Where: R_{jt} represents the return rate of the company's share j in date t;

R_{Mt} represents the return rate of BOVESPA index, in the period t and μ_{jt} represents the stochastic disturbance of the model.

- (e) The risk coefficients (betas) expected for the acquiring and acquired companies before merger or acquisition take place, are estimated by means of the return on shares in the 6 months before the event. The average of betas, pondered by total asset, generates a measure called β_α , that represents the average of the risk, estimated for companies from item I, before merger/acquisition. β_α is represented by the following formula: $\beta_\alpha = w_1 \beta_1 + w_2 \beta_2$, where: β_1 and β_2 represent the coefficient of risk estimated by pair of companies merged/acquired and w_1 e w_2 represent the value of the companies' assets in item I, proportionally to the total asset of the resulting company of the merger/acquisition.

- (f) The risk coefficient of the resulting company, after merger/acquisition, comes represented by β_p and is calculated using data from daily return of market shares, in a period of 6 months after merger/acquisition.

- (g) Betas of the control companies, in the period before merger/acquisition, are estimated from return of market shares in the period before the event (merger/acquisition).

- (h) After merger/acquisition we estimate the risk coefficient of control companies from their market share daily return during the period of 6 months after integration.

- (i) To calculate the effect of complementary assets integration from merger/acquisition on the company's economic risk we use the following equation:

$$D = (\beta_\alpha - \beta_p) - (\beta_{ca} - \beta_{cp}), \text{ where:}$$

D = decrease of economic risk of the company;

β_α = pondered average of risk coefficient of companies that undergo merger/acquisition, before the event.

β_p = estimated risk coefficient of the resulting company from merger/acquisition, after the event.

β_{ca} = risk coefficient presumable for control companies before merger/acquisition.

β_{cp} = risk coefficient calculated for control companies during the period after the event (merger/acquisition).

The research objective is to check the hypothesis that D becomes greater than zero with a merger/acquisition. D should be bigger than zero ($D > 0$), because if the economic risk falls, caused by merger/acquisition, it means that the effect of the event left a company less risky, more consolidated and with positive implications from the integration of complementary assets. As expected, the estimate β_α of the company should be greater than the β_p , generating a positive number in the subtraction: $\beta_\alpha - \beta_p$.

In addition, any variation of the systemic risk experienced by the group of control companies, generating positive or negative values in the subtraction $\beta_{ca} - \beta_{cp}$ should come from fluctuations in market conditions. These fluctuations do have an implication on the swing of company's economic risk which undergo vertical merger/acquisition and whose effect should be eliminated, in order to isolate the effect of merger/acquisition on the company's systemic risk. In this sense, variable D represents a measure of the company's systemic risk reduction, due to merger/acquisition, out of any other effect. The hypothesis $D > 0$ expresses the expectative that the effect solely from merger/acquisitions on the fall of the company's systemic risk be positive.

Therefore, we can formulate the research hypothesis on the following premises:

$$H_0: D = 0$$

$$H_A: D > 0$$

With D null ($H_0: D = 0$), there is no implications from integration of complementary assets in merger/acquisition to the resulting company. For D bigger than zero ($H_A: D > 0$), there is, presumably, a positive influence from the integration of complementary assets on the resulting company (after merger/acquisition). We test the hypothesis using Wilcoxon Matched Pairs Signed Ranks (WMP) test. This nonparametric test does not requires normal distribution of the population. It compares the risk of companies after merger/acquisition ($\beta_a - \beta_p$) with decreasing of the economic risk of control companies ($\beta_{ca} - \beta_{cp}$) targeting at evaluating significant statistical differences in the results. The null hypothesis means there is no significant statistical difference among the two expression, that is:

$$(\beta_a - \beta_p) = (\beta_{ca} - \beta_{cp})$$

If null hypothesis cannot be refused, then:

$$(\beta_a - \beta_p) - (\beta_{ca} - \beta_{cp}) = 0$$

Therefore, in terms of population, mergers and acquisitions do not cause decrease in economic risk of companies. WMP test allows one to calculate the value of statistic W, that should be then compared with the critical values of a statistical table, to do the hypothesis test (Siegel, 1956). In case of H_0 rejection, WMP test allows also to calculate, through ranking, which difference is the bigger. In other words, if in populational level, the decrease of the economic risk of participating companies in merger/acquisitions $(\beta_a - \beta_p) > (\beta_{ca} - \beta_{cp})$ implies $D > 0$ (risk decreasing), or on the contrary, implying $D < 0$ (risk increasing). Table 1 shows the selected companies that made merger or acquisition during the considered period.

Table 1 – Sample of Companies under item I with Respective Total Asset

Nr.	Company	Total Asset (R\$)	Canvass Date Total Asset	Year of Integration
1	Cervejaria Brahma S.A.	4.447.523,00	31/12/1999	2000
	Antarctica Paulista S.A.	2.175.157,00	31/12/1998	
2	Sadia S.A.	12.558.144,00	31/12/2008	2009
	Perdigão S.A.	6.403.008,00	31/12/2008	
3	Braskem S.A.	21.551.933,00	31/12/2009	2010
	Quattor Petroquímica S/A	2.237.050,00	31/12/2009	
4	Gol Linhas Aéreas Inteligentes S.A.	2.504.178,00	31/12/2007	2008
	Varig Participações em Transportes S.A.	56.883,00	31/12/2005*	
5	Votorantim S.A.	12.797.764,00	31/12/2008	2009
	Aracruz Celulose S.A.	10.333.968,00	31/12/2008	
6	Telefonica Brasil S.A.	19.600.980,00	31/12/2010*	2012
	Vivo Participações S.A.	13.584.577,00	31/12/2010*	
7	PDG Realty S.A. Empreend e Participações	3.836.437,00	31/12/2009	2010
	Agre Empreendimentos Imobiliários S.A.	1.848.747,00	31/12/2009	

Source: Securities Value Commission (CVM), 2015.

Table 2 – Control Group Companies

Nr.	Company	Sector Classification by BOVESPA
1	Lojas Americanas	Retail
2	JBS S.A.	Non cyclic consume / Industrialized Food / Meat and Related
3	MG Políester S.A.	Basic Materials / Chemicals / Petrochemicals
4	Tam - Transportes Aéreos Regionais	Transport / Air Transport
5	Celulose Irani S.A.	Basic Materials / Wood and Paper / Paper and Celulose
6	Inepar Telecomunicações S.A.	Telecommunications / Mobile Telecom
7	João Fortes Engenharia S.A.	Construction and Transport / Construction and Engineering / Building

Source:
Future
Stock
Market
(BMF)
/
BOVE
SPA,
2015.

RE SU LT S

AND DISCUSSION

To reach the objectives of this research we first calculate the betas for both groups of companies, the ones that made merger or acquisition and the control group companies. Then we calculate risk reduction comparatively to check the hypothesis HO and HA. Next set of tables refer to these calculation.

Table 3 – Betas Estimation of Companies Participating on Mergers and Acquisitions

Companies with Mergers or Acquisitions	Estimated Beta	Test t	p value. Statistical Significance of Beta	Teste Z	p value Statistical Global Significance of the model	R Square Adjusted
Antarctica	0,311	1,045	0,002	10,011	0,002	0,057
Brahma	0,295	4,42	0,000	19,53	0,000	0,072
Ambev	0,352	6,719	0,000	45,14	0,000	0,013
Sadia	0,197	5,403	0,000	29,193	0,000	0,024
Perdigão	0,408	7,214	0,000	52,039	0,000	0,045
Brasil Foods	0,375	6,881	0,000	47,345	0,000	0,040
Brasken	-0,382	-3,731	0,000	13,918	0,000	0,009
Quattor	0,213	6,817	0,000	46,47	0,000	0,024
Brasken Pos Aquisição	0,466	8,872	0,000	78,719	0	0,089
Gol	0,417	8,83	0,000	77,99	0	0,069
Varig	0,306	4,985	0,000	24,85	0	0,011
Gol Pos Aquisição	0,690	18,06	0,000	326,130	0	0,185
Votorantim Celulose	0,486	12,394	0,000	153,610	0	0,060
Aracruz Celulose	0,223	3,311	0,001	10,965	0,001	0,010
Fibria Celulose	0,766	19,22	0,000	369,59	0,000	0,246
Telefonica	0,229	7,43	0,000	55,196	0,000	0,058

Vivo	0,483	7,342	0,000	53,9	0,000	0,04805
Vivo	0,255	7,378	,000	54,434	0	0,074
Pdg	0,806	13,171	0,000	173,478	0,00000	0,173
Agre	1,093	1,093	0,000	33,274	0,00000	0,290
Pdg Reality	1,147	15,682	,000	245,936	0	0,197

Table 4 – Risk Reduction of Companies Participating in Merger or Acquisition

[1] Nr	[2] Beta pre- integration of Companies A		[3] Beta pre-integration of Companies B		[4] Pondered Average of Betas	[5] Beta of Resulting Company	[6] Risk Reduction [4]-[5]
1	Antarctica	0,295	Brahma	0,311	0,3	0,352	-0,05
2	Sadia	0,197	Perdigão	0,408	0,27	0,375	-0,11
3	Brasken	0,382	Quator	0,213	0,37	0,466	-0,1
4	Gol	0,417	Varig	0,306	0,41	0,69	-0,28
5	Votorantim	0,486	Aracruz	0,223	0,37	0,766	-0,4
6	Telefônica	0,229	Vivo	0,483	0,33	0,255	0,08
7	PDG	0,806	AGRE	1,093	0,9	1,147	-0,25

Table 5 – Risk Reduction of Group Control Companies

Beta pre integration [1]	Beta after integration [2]	Risk Reduction [1]-[3]
0,615	0,353	0,262
0,75	0,714	0,036
0,401	0,289	0,112
0,508	0,629	-0,121
0,401	0,376	0,025
0,901	0,522	0,379
0,187	0,269	-0,083

Table 6 – Net Risk Reduction

[1] Risk Reduction of Companies in Merger/Acquisitions (from Table 3)	[2] Risk Reduction of Group Control (from Table 4)	[3] Net Reduction[1]-[2]
-0,05	0,262	-0,31
-0,11	0,036	-0,14
-0,1	0,112	-0,21
-0,28	-0,121	-0,15
-0,4	0,025	-0,42
0,08	0,379	-0,3
-0,25	-0,083	-0,16

We did the Wilcoxon test from data in columns 1 and 2 of Table 6. Considering 0,05 significance level, the null hypothesis must be refused, based on the existence of differences statistically significant between the

variation of economic risk of companies under merger/acquisition and the variation of control group companies. Additionally, the sum of negative ranks reaches 28, while the sum of positive ranks is 0. Therefore, statistically, D is negative. This result denies our central hypothesis that mergers and/or acquisitions support a decrease in the economic risk of enterprises. If $D < 0$, as results are pointing to, then merger and/acquisition should promote a negative decrease, that is, an increase in the economic risk.

In despite of small, one cannot blame sample for the results, since the test WMP is effective, even with samples under 10 elements (Helfat & Teece, 1987). The group control companies, on the other hand, may be responsible for some bias in the results. Ideally, the group control companies should be as much as similar as possible to the participating companies under merger/acquisition, in such way that market behavior (variations) should affect both groups in the same way or intensity. Each company of the group control should be from the same industrial field and hold approximately the same amount of assets than the corresponding company in the participating companies under merger/acquisition. These similarities, however, were not possible to keep to all companies. There were not much coincidence of companies in both groups complying with the restrictive requisites and a relatively small amount of companies listed in the BOVESPA (stock market) induced us to adapt elements of the pairs. For instance, we have to use a general retail company (Lojas Americanas) in the control group companies for a pair of beer makers (Brahma and Antarctica), which despite being close, is still not the ideal representative.

In spite of hurdles for a perfect compliance of the research methodology, such typical results, showing negative net reduction (increase in risk) to all seven merger/acquisition cases studied, brings out the possible issue of a systemic component undermining the expected results and, therefore, a door for a plausible explanation of the phenomenon.

The analysis of Table 3 may suggest some hints. Numbers in this table, show that before merger/acquisition, the economic risk of participating companies is low. All betas hold values lower than 1 demonstrating that variation in the economic surroundings, would imply variations less than proportional on returns from these companies. Furthermore, the low value of R^2 , shown in the last column of Table 3, implies that economic variations of market conditions explains a very small amount of variance on economic returns from these companies.

These two conditions, added to the significant volume of assets held by selected companies in Table 1, support the hypothesis that the studied companies in this research, already had, before merger/acquisition, accurate information on economic risks that allowed them to formulate more efficient strategies contingent to the distinct scenarios they were involved, minimizing the fluctuation of economic returns. These same conditions allow us to hypothesize that these companies were already holders of complementary assets. Such assets, sufficiently consolidated, would guarantee an effective market positioning for their innovations. They would also keep them safe from opportunistic maneuvers from commercial partners (they themselves complementary asset holders), who collaborate with the commercialization of innovations of the company, but would compete for profit appropriation (Teece, 1986 e 2013). So merger/acquisitions would have little to add in terms of risk reduction.

Lev and Mendelker (1972) conducted research on the effect of merger/acquisitions of companies' economic risk. They concluded that among the main reasons for merger is the wish for the growth of the company, for increases in market share and for the business return rate. They notice also that a great deal of merger and acquisitions are supported by third party capital investment, on the premises of the acquiring company's expenses. This process of financial leveraging allow for the company's fast growth, but it increases the estimation of economic risk (β) measured through CAPM model. This happens because when the parcel of debt increases within the capital structure of the company, returns on shares tend to become more volatile (Modigliani & Miller, 1958). In this way, complementary assets brought by the acquired company, do not put significant pressure on economic risk to fall. At the same time, financial leveraging would exert strong pressure to go up, resulting in increases of the companies' economic risk.

FINAL REMARKS

As the results of this research show, the effect of mergers/acquisitions on the economic risk of companies set in Brazil, is about the same as Lev and Mendelker (1972) found. While studying the same relationship the authors found in companies set in other countries that mergers and acquisitions do not produce a clear directional effect on the level of economic risk in companies, measured through CAPM model.

Results of our statistical study indicate that mergers/acquisitions tend to increase the level of economic risk of companies. However, all sampled companies are big companies, so statistics laws do not allow us to generalize results including medium and small size companies. The logic in this argument indicates that mergers/acquisitions among medium and small size companies, incorporate complementary assets to the acquiring company to position its innovation basis in a more competitive platform, should lower the economic risk of the company.

Finally, we propose new research to be done using the same method, but with a bigger and diversified database and using the size of the acquiring company (measured by the company's total asset) as control variable. Another approach to be researched would be to determine the relationship between the amount of complementary assets not redundant, that is, not held by the acquiring company before a merger/acquisition, and the variance of the economic risk (before and after merger/acquisition) among small and medium size companies.

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THE HOSPITALITY SUPERVISOR'S PERCEPTIONS ON IMPORTANCE OF THE PERFORMANCE DIMENSIONS TO DELIVER QUALITY SERVICE

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ABSTRACT

The hospitality supervisor's perception of the performance dimensions (competencies) to perform their duties, insuring and even exceeding guest satisfaction needs to be taken in consideration by hospitality organisations and their management. The aim of this research paper is to illustrate that the supervisor in the hospitality industry in South Africa, perceives certain performance dimensions as important when delivering quality service to guests. A survey research approach was followed and the research was conducted through self-administrated structured questionnaires. This questionnaire was based on core performance dimensions related to managerial aspects of hospitality supervisors. The researcher received 141 responses. Descriptive and inferential statistics were used to analyse the data. Guest and relationship performance dimension was perceived as the most important dimension when delivering quality service. This correlates with literature. However the performance dimension financial and business was ranked very low on the list of responsibilities.

Keywords: Perception; perceived importance; performance dimensions; service; supervisor

INTRODUCTION

The South African hospitality industry is faced with various challenges such as increased competition and the need to work smarter and not necessarily harder. In order to address these challenges, hospitality organisations and management must identify the guests' needs and wants and then organise resources in such a way that it will meet or even exceed guests' expectations (Ford & Heaton, 2000, p. xi and xxii). Although this sounds simple, it presents challenges as hospitality organisations need every employee to be committed to improve customer relationships. Supervision can be viewed as a challenge when it comes to the quality of the product or the service rendered, thus having the right supervisory skills is pivotal. The supervisors' perceptions of and experience in the key performance dimensions of supervision are important. In South Africa there is very limited information available with regards to the key performance dimensions of the supervisor in the hospitality industry. Relatively few organisations and their management identify the core competencies and level of experience needed at each level of management. Finding a supervisor with the required competencies is becoming an increasingly difficult task (Charan, Drotter & Noel, 2001, p. 4). Due to limited information available, it was considered to be imperative to conduct a study to determine what the perceptions are and specifically which performance dimensions they consider to be important when delivering quality service.

The perceived importance regarding the performance dimensions (competencies) needed to perform the duties of a hospitality supervisor will have an influence on the quality of service delivered to the guest/customer. For a hospitality organisation to have a competitive advantage, the quality of service delivered, need to take centre stage. Thus having a competency model for identifying essential/requisite skills for the supervisor in the hospitality industry is a useful tool when delivering the services expected by the hospitality guest (Testa & Sipe, 2012, p. 648).

Many hospitality employees demonstrate the ability to handle new responsibilities and adhere to a hospitality establishment's values. They are then often promoted to supervisory level, but unfortunately they sometimes do cling to the values appropriate to the position or level previously occupied. Most of the time the skills required at this level are primarily technical or professional. When promoted to supervisory level these employees have to make the shift from doing the work themselves to getting the work done by others (Charan, *et al.*, 2001, p. 17; Walker & Miller, 2012, p. 9-10), thus the knowledge and skills required have become increasingly more complex (Yu & Miller, 2005, p. 35). A guest/customer in the hospitality industry perceives a link between service quality and the morale, motivation, knowledge, skills and authority of the employee. The efficiency of services in a hospitality establishment are inextricably linked to the individual qualities of their employees (Lockyer & Schoearios, 2004, p. 125). Basic skills required from supervisory level include planning, filling jobs, assigning work, motivating employees, coaching and evaluating the work of others (Charan *et al.*, 2001, p. 17; Walker & Miller, 2012, p. 9-10). The aim of this research paper is to illustrate that the hospitality supervisor currently occupying this position perceive certain performance dimensions (competencies) as important when delivering quality service to hospitality guests.

LITERATURE REVIEW

Guest/customer satisfaction has become an important concept in hospitality organisations and over the years has been used as a benchmark for measuring an establishment's performance (Manhas & Tukamushaba, 2015, p. 77). A hospitality organisation that can create a strong service culture will have the potential to be very successful in the industry (Curtis & Upchurch, 2008, p. 131). Service quality depends very much on the hospitality employee at all levels of the organisation. The human element forms part of the product and service of the establishment and is seen as the key feature when it comes to provision of quality service (Nickson, Warhurst & Dutton, 2005, p. 196; O'Neill, Watson & McKenna, 1994, p. 36).

Hospitality organisations such as Disney, Marriot and the Ritz-Carlton, have been identified as successful organisations in the industry. The reason being that these organisations have developed worthy reputations for their recognition of the role employees play in meeting the guests/customers' expectations (Nickson *et al.*, 2005, p. 196). Hospitality organisations are in the unique position as they attempt to bridge two worlds – domestic and the commercial – when they have to deliver on the service promise to guests/customers (Crick & Spencer, 2011, p. 463). The word service has various meanings, *inter alia*, being friendly, delivering requests timeously and most of all, attending immediately to the guests/customers' needs. However there is a little more to the service in the hospitality industry (Mei, Dean & White, 1999, p. 137) as it is an activity that needs to create a bond between the hospitality employee and the guest (Blem, 1995, p. 6).

The service climate in a hospitality establishment will rely on the employees' perception of the organisational policies, procedures and practices. This perception of the above-mentioned will then promote a climate that expects and rewards guest/customer service. It is however important to understand that a service climate has three major components, namely customer orientation, managerial support and work facilitation. All three these components, depend on the support provided by an establishment. With the component customer orientation, employees will need to generate and use information about the guest and then create systems in the organisation that will act on information that will fulfil the guests' expectations. The component managerial support is the action taken by the supervisor or manager to support and reward delivery of quality service. Work facilitation relates to the working conditions to provide support in delivering quality service. This will include sound human practices, guidance and co-operation amongst employees (He, Li & Lai, 2011, p. 595).

The knowledge and skills required by these employees have become increasingly complex (Yu & Miller, 2005, p. 35). The supervisor is seen as the first level of management and fulfils a significant role in the delivering of service and the establishment of a service culture in a hospitality organisation. As the importance of a competitive advantage rests with people, managers play an integral role in reinforcing this competitiveness in their organisations (Thacker & Holl, 2008, p. 102). The hospitality supervisor could be labelled as the purveyor (supplier) of organisational values and a source of feedback and learning (Burke, 2004, p. 28-29). They are the person who manages employees and who in turn are responsible for the output in terms of products and services rendered by the organisation. The concept of supervision is the interaction between the supervisor and the person who is supervised, thus an agreement regarding the act of discussing work and events (Burke,

2004, p. 28-29). Supervisors are not always adequately prepared for the responsibilities that come with the job. It is sometimes difficult to make the transition from an operative employee to a leadership position (Charan *et al.*, 2001, p. 17). A majority of operative employees are promoted to supervisory level based on their performance and experience as well as technical skills (Rue & Byars, 2004, p. 3 & Kumagai & Kleiner, 1995, p. 8). Supervisors tend to use their technical skills more than any other managerial position (Ruetzler, Baker, Reynolds, Taylor & Allen, 2014, p. 158). Promoting existing employees to a supervisor level is often seen as a cost-effective way to constantly recruit new supervisors (Williams & Hunter, 1992, p. 348).

The job and the workplace in a hospitality organisation are much more complex today. Managers and leaders have to be able to supervise and lead equal opportunities of employees, create a positive work environment and be responsible for training and development of staff. They are further challenged to manage and lead a diverse work, make decisions, communicate and motivate employees. These establishments are dependent on their human capital to stay competitive and increasing market value depends on their intangible assets, such as the knowledge, core competencies and organisational capabilities (Tajeddini & Trueman, 2012, p. 1119; Grisseman, Plank & Brunner-Sperdin, 2013, p. 354).

Happy guests/customers drive a hospitality business and employees need to care for these guests/customers, nurture them and do whatever it takes to earn their loyalty. The hospitality supervisor plays a strategic role in the organisation as they are the linchpin cementing the employee, guest and management relationships. Their expertise influence the productivity of the employee and this will have a direct influence on the productivity of the employee and this in turn will have a direct influence on the level of guest/customer satisfaction and return on assets. Having competencies and skills is pivotal, especially in today's dynamic work environment (Kong, 2013, p. 304). Unfortunately relatively few organisations and their management identify core competencies and level of experience needed at each level of management. Two reasons could explain the lack of core competencies. Firstly, organisations tend not to have a job description of the managerial position they occupy and secondly, most organisations fail to spell out performance standards/dimensions that apply to various managerial or leadership positions (Charan *et al.*, 2001, p. 143). Most of the time there are more focus on the supervisor's personal traits and technical competence than on the knowledge and skills needed for the level of management.

METHODOLOGY

The researcher followed a survey research approach conducted through a structured, self-administered questionnaire to collect the data. The questionnaire was based on a 'performance standard' document used by one of the major hotel groups in South Africa. The category focusing on the Managing Others was used to develop the questionnaire, which explains the core purpose of the position of supervisor. Supervisors were measured according the following performance dimensions: Leadership and people performance; Guest and relationship performance; Financial and business performance; Management and operational performance; and Innovation and improve performance (Southern Sun, 2010). For the purpose of this article, the section on the questionnaire consisting of questions and statements that was formulated in such a manner, that the researcher could determine the supervisor's perceived importance with regards to his/her performance to reach organisational goals was used. An uneven number of response categories were given on a scale of 1-5. Respondents had options ranging from strongly agree to strongly disagree, with 1 being strongly disagree and 5 strongly agree. To improve reliability of data the researcher chose the options of pilot-testing (Bradburn, Sudman & Wansink, 2004, p. 317). The participants in the pilot-testing were ten supervisors from two boutique hotels.

For this study convenience sampling was used. The population chosen were supervisors working in the hospitality industry, specifically in the hotel industry, in South Africa. Initially a team of supervisor in one of the main hotel groups was chosen as this hotel group has more than 76 hotels in the chain. Due to a very low response rate to the questionnaire, the study was expanded to five other well-known hotel groups. A total of six hotel groups participated in the study. Unfortunately the researcher cannot provide the total number of respondents to whom the questionnaire was distributed to, the reason being that some of the hotel groups did not provide that information. The final responses received from the hospitality supervisors were 141. Descriptive and inferential statistical procedures were used to analyse the quantitative data. The reason for using quantitative

analysis were to measure, make comparisons, examine relationships, explore and explain data collected (Fox & Bayat, 2013, p. 78-79).

RESULTS AND DISCUSSION

The subscales for the five performance dimensions in the measurement instrument, with regard to perceived importance of personal performance as a supervisor, were obtained by calculating the mean. For the performance dimension Leadership and people, the mean calculation, was done only if all of three items had valid values. Performance dimension, Guest and relationship - the mean calculation was done only if both the items had valid values. The third performance dimension, Financial and business performance, consists of only one item therefore determining that internal consistency was not appropriate. Management and operational performance dimension consists of four items and the mean calculation was done only if at least three of the four items had valid values. With the performance dimension, Innovation and improvement, three items had valid values. To conclude, four of the five performance dimensions when using the data in the sample, demonstrated acceptable internal consistency as illustrated by the Cronbach's alpha co-efficient. The exception is the dimension, Leadership and people performance. The Leadership and people performance dimension achieved a Cronbach's alpha of 0.717. Table 1 reflects the descriptive statistics for the five calculated performance dimensions.

Table 1: Descriptive Statistics: Perceived importance of personal performance as a supervisor

Performance dimensions	N	Minimum	Maximum	Mean	Std. Deviation
Perceived importance of Leadership and people performance to accomplish organisational goals	141	1.00	5.00	4.4071	.55987
Perceived importance of Guest and relationship performance to accomplish organisational goals	141	1.00	5.00	4.5964	.62874
Perceived importance of Financial and business performance to accomplish organisational goals	141	1.00	5.00	4.1000	.84223
Perceived importance of Management and operational performance to accomplish organisational goals	141	1.00	5.00	4.4523	.60954
Perceived importance of Innovation and improvement performance to accomplish organisational goals	141	1.00	5.00	4.4300	.61107
Valid N (leastwise)	141				

The findings indicate that Guest and relationship performance is seen as the most important performance dimension with a mean of 4.596. This correlates with the findings in the literature as the ultimate objective of any hospitality organisation is to serve and satisfy the needs of guests/customers (Che-Ha, Mavondo & Mohd-Said, 2012, p. 1). The Management and operational performance dimension is ranked as the second highest level of importance with a mean of 4.452. Referring to the Management and operational performance dimension, it is very interesting to observe supervisors' responses with regard to their own performance with what they perceive should be important regarding experience, knowledge and skills needed to perform their duties. When results are compared, Management and operational performance is not seen as a very important dimension for supervisors to perform their duties, whereas in reality, they are responsible for performing the duties and activities around this dimension.

Effective, proper and on-time operational planning has been, and always will be, part of a supervisor's duties. It is cardinal that a supervisor understand how operational planning fits into the overall planning scheme of a hospitality organisation. Having a clear understanding of the organisational objectives will most definitely contribute to the success of hospitality supervisors, as these objectives deal with quantity, quality, cost, staff and safety of the organisation (Rue & Byars, 2004, p. 115).

Innovation and improvement performance, as well as Leadership and people performance, were identified as third and fourth important dimensions, mean of 4.430 and 4.407 respectively, needed by supervisors

to perform their duties. According to Grisseman *et al.*, (2013, p. 347) due to globalisation, competition, technological evolution and stagnating guest/customer demand, hospitality organisations have been forced to become more innovative by introducing new services, but also by providing improved quality products and services. With more innovation these organisations could increase their market share, sales and profits. Being guest/customer orientated is an important driver of innovation. Hospitality organisations that are customer-orientated will be more likely to alter their services and products to meet guest's/customers' expectations.

Studies have shown that there is a difference between the concepts leadership and management. It is suggested that leadership is an influencing activity, whereas management refers to planning, organising and controlling functions in an organisation. Research done by Zehir, Sehitoglu & Erdogan (2012, p. 207) indicate that there could be a link between supervisory commitment and leadership style, notably transformational, transactional and laissez-faire leadership styles. Transformational leadership is characterised by organisational change and stability, whereas transactional leadership leads employees by rewards. With a Laissez-faire leadership style, supervisors tend to leave responsibilities to employees. Ranking the Leadership and people performance dimension as the fourth important dimension could indicate the level of a supervisor's commitment to the organisation. According to the authors, there is a positive and significant relationship between transformational and laissez-faire leadership and commitment to the organisation. The study reveals that transactional leadership has no effect on supervisors' levels of commitment. However this does not mean that there is a problem with regard to the relationship between the supervisor and the employee (Zehir *et al.*, 2012, p. 215-216). The mean relative on a scale of 1 – 5 identifies the following performance dimensions as the perceived importance of the supervisor. Ranking of the dimensions is listed from most important to least important in Figure 1.

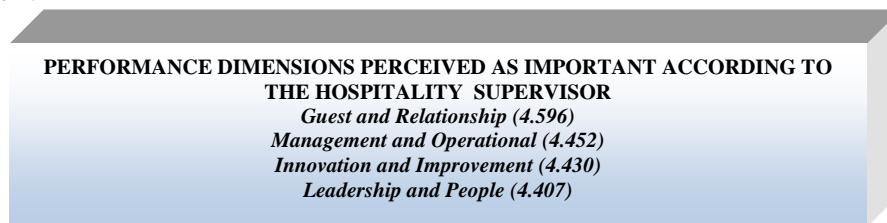


Figure 1: Five performance dimensions ranked as important according to the perceived importance of the supervisor

Ranking of Guest and relationship performance as well as Management and operational performance as the two most important dimensions, supports the research done in the hospitality industry. The findings relate to the perceived importance of what supervisors expect to be part of their duties and confirm that they understand their role in a hospitality organisation. Satisfying guest expectations by ensuring that the basic operational dimensions, such as problem-solving, corrective action and deployment resources are in place, is part of the supervisor's daily duties.

Attributes (subscales) were linked to each of the five performance dimensions to determine which of these attributes the respondents strongly agreed on to be important factors to achieve the goals in a hospitality organisation. The findings indicate the following results. See Table 2 for performances that relate to the attributes which were strongly agreed or agreed on as most important according to the supervisors' expectations/importance:

Table 2: The attributes related to the performance dimensions most agreed on as important according to the supervisor's perception

<i>VARIABLE(PERFORMANCE DIMENSION)</i>	<i>SUBSCALES/ATTRIBUTES</i>	<i>Strongly agree on attributes chosen by the respondents</i>	<i>Agreed on attributes chosen by the respondents %</i>	<i>Mean</i>

		%		
<i>Leadership and people performance</i>	<i>Team performance</i>	60.9	-	1.43
	<i>Skills level of self and staff</i>	40.7	47.9	1.79
	<i>(training and coaching)</i>	50.0	47.9	1.56
<i>Guest and relationship performance</i>	<i>Guest needs and service</i>	74.6	-	1.43
	<i>Subordinate and manager relations</i>	58.6	-	1.51
<i>Financial and business performance</i>	<i>Product and service promotion</i>	-	54.3	1.90
<i>Management and operational performance</i>	<i>Execution review and corrective action</i>	44.3	49.3	1.66
		65.0	-	1.41
	<i>Process, systems, standards, protocols, procedures – implementation, audit and compliance</i>	52.6	-	1.54
		52.9	-	1.57
	<i>Hallmarks and operational standards</i>			
<i>Innovation and improvement performance</i>	<i>Problem-solving</i>			
	<i>Improvements to standards</i>	46.4	48.6	1.63
	<i>Sharing of ideas and</i>	53.6	-	1.54
	<i>provision of relevant feedback</i>	55.1	-	1.53

According to the findings in the abovementioned table, the majority of respondents indicate that they either strongly agree, or at least agree, that the attributes related to the five performance dimensions are important to perform their duties as supervisors. The lower the mean value, the stronger the agreement on the importance of these attributes. Team performance related to Leadership and people performance dimension with a mean value of 1.43 while guests' needs and service related to Guest and relationship performance dimension with a mean value of 1.43, Processes, systems, standards, protocols, procedures – implementation, audit and compliance - related to Management and operational performance with a mean value of 1.41 are identified as extremely effective attributes. Product and service promotion that relates to the performance dimension Financial and business performance, has the highest mean value of 1.90. Although the abovementioned attribute is rated as very important, it is less important than the other identified attributes.

Operational processes, systems, standards, protocols, procedures and enhancing team performance through leadership as well as fulfilling guests' needs and providing quality service, confirm the important role of the supervisors. Supervisors are responsible for the unit in which they work, therefore their primary managerial functions are centred on daily activities. These daily activities comprise applying policies, procedures and rules, but they also need to achieve high productivity. Service and product promotion that was identified as the least important attribute, could become a challenge if it not perceived as important, as any competitive organisation cannot afford to keep ignoring the importance of finance.

CONCLUSIONS AND RECOMMENDATIONS

A major contributor to the success of a hospitality establishment is the supervisor, since the fundamental concepts of a successful establishment focus on the guest and the supervisor is the key frontline employee to build relationships between the organisation and the guests. Although a lot has been written on supervision over the years, most of the information concerns the responsibilities and duties of the supervisor. To create a culture of service is of utmost importance and can be done solely by appointing a supervisor that is suitable for the job. Hospitality establishments tend to hire employees at entry level and then promote them from within the pool of employees as they gain skills and experience. Hospitality establishments will have to recruit and select

employees who understand the service culture of an establishment. Training unsuitable employees to fulfil the role of a supervisor is time-consuming and costly, therefore identifying specific skills/competencies become crucial. There are some qualities that make up the all-professional supervisor. They are the managers with a working knowledge of the business they operate but they also need to possess a sound grasp of business in general.

According to the perceptions of the respondents in this study, the performance dimension that creates a strong culture of service is the Guest and relationship performance dimension with its attributes and it is seen as an important competency to deliver quality service. This is a major contributing factor to the success of any hospitality establishment as it leads to satisfied guests. Over the years technical skills have been associated with the supervisor but in today's economic environment and increased competition other traits/competencies are becoming more important. This includes good money sense, the desire to lead and being innovative. Unfortunately many supervisors occupying this position perceive the above-mentioned dimensions, and specifically Finance and business as least important. The financial aspect of the organisation has traditionally been the responsibility of the higher levels of management, but as hospitality establishments have become increasingly capital-intensive, managers at all levels are required to have adequate financial skills. The purpose of this research was to help hospitality establishments and their management to understand that hospitality supervisors perceive certain performance dimensions as important and that there may exist a gap between what is experienced in industry and what supervisors perceive to be important.

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VIRTUALIZED DMZs: SECURITY ISSUES AND CONCERNS?

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ABSTRACT

Virtualization as a technology has existed for almost three decades now. By emulating physical resources, virtualization enables to utilize the full capacity of their hardware resources. Traditional physical DMZs (demilitarized zones) can be virtualized in three different ways. In this paper the level of security of these three virtualized DMZs was compared to the level of security of traditional physical DMZs. The DMZs considered, represented a typical part of a network of an organization. A test bed was set up using VMware ESXi 4.1 hypervisor to determine which DMZ design was the most secure. A quantitative research methodology approach was used to collect data with the help of a range of vulnerability assessment tools. Based on the research, conclusion was drawn that all security elements, like firewall, IDSs, IPSs and the inspection algorithms in these devices, determine the level of security of a virtual DMZ and not its being physical or virtual.

Keywords: Virtualization, emulation, security, firewall, Demilitarized Zone

INTRODUCTION

The aim of this paper is to determine which virtual DMZ design, is the most secure to implement while still retaining the information security of the network. Accordingly, the primary research question, “Is it secure to implement DMZ in a virtual network infrastructure?” was investigated to answer by carrying out this research. Other secondary questions to be considered to facilitate the primary research question were: 1) How can virtualized DMZs be implemented? 2) Which is the most secure type of virtual DMZ? 3) Which DMZ design is appropriate for a specific business requirement? 4) What impact will virtual DMZs have on information security in contrast to traditional DMZs? 5) What is to be avoided while deploying VMs in a DMZ?

The paper “DMZ Virtualization with VMware infrastructure” (VMware, 2008), suggests three deployment strategies and firewall implementations, to establish virtual DMZs. Understanding which deployment strategy is best suited is essential for effective virtualization. It is also believed that cloud computing will be an integral part of computing in future, the investigation of how secure our cloud is, is yet another area that motivates this research, with a view to explore whether virtualization is really secure for cloud computing. Since virtualization is one of the underlying technologies that formulate our cloud’s data centres (Armbrust et al, 2010), cloud users need to know how secure virtualization is.

In order to answer the above questions, vulnerability assessment was conducted in a virtualized environment. Results of vulnerability assessment were used to justify the stability of the environment and would suggest what security policies are to be employed to secure virtual infrastructure with DMZs and be a part of both the private and public cloud.

The organisation of this paper is as follows: next Section 2 covers state of the art, related works and contribution this paper makes, Section 3 covers the proposed research methodology used for the current study,

and Section 4 covers the data analysis. Section 5 covers the discussion, conclusion and limitations followed by the references.

STATE OF THE ART

Virtualization introduces a new layer of implementation to our traditional computer networks (Bliekertz, 2010). Considering the implementation of this new layer virtualization introduces new security issues in the network. One of the benefits of virtualization is its ability to easily scale up server environments. Although a benefit, it is also a great concern for security administrators. The scalability factor in large network deployments can lead to inconsistency in monitoring the server environment (Hietala, 2009). VMM (Virtual Machine Monitors) gives administrators the flexibility for deploying new virtual machines in their server environment and they are no longer bound to acquiring physical resources. Over a period of time this has an impact on the security mechanisms within the network, as the work load on administrators also increases and may lead to inconsistency in security mechanisms as well (Bliekertz, 2010).

In a traditional network the physical machines are connected to the network via a particular port on the switch that can be monitored. In a virtual environment this is not the case; large virtual machine deployment can be attached to one physical port on the network. These virtual machines, if communicating with each other, do not need to pass traffic onto the physical port; they can communicate with each other, as they are part of one single virtual switch. In other words, inter-VM traffic is opaque to the physical network, because they lie within the hypervisor layer (Sparks & James, 2008). Furthermore, virtual machines can easily bypass IP filtering on firewalls (Apani, 2009). When a VM migrates from one host to another it might change its security zone if the physical NIC of the host to which the VM should be migrated is placed outside the firewall security zone (Xianqin, Han, Sumei & Xiang, 2009). All these issues among others leads to design problems in virtual environments and adds to the complexity of the network. When virtual environments are not designed carefully, detectable loop holes can be left in the entire network. Cleeff, Pietersand & Wieringa (2009) in their paper “Security implications Of Virtualization: A literature Study” mention that there is a limit to knowing what physical network resources should be, and what should not be virtualized.

Virtual infrastructures can be designed in numerous ways. Paper (VMware, 2008) suggested that virtualization can design our traditional DMZ in three different ways as discussed below.

Design 1 - Partially Collapsed DMZ with physical trust zones

Physical servers are separated by physical firewalls. This design is considered to be least complex. The DMZ is divided into different security trust zones with physical firewalls between each physical server cluster. The virtual machines that are part of the external trust zone are kept on the same server and are separated from the internal trust zone with the help of a physical firewall. Similarly, the virtual machines that are part of the internal trust zone are kept separated with the help of a physical firewall on the same physical server.

Design 2 - Partially Collapsed DMZ with virtual separation of trust zones

The trust zones are separated with the help of physical firewalls. However, the design is different from Design 1 in terms of deploying virtual machines. In this design, both, external and internal trust zone virtual machines are kept on the same host. VMware’s ESXi server’s inbuilt virtual switches are used to enforce separation of trust zones within the design. Each virtual switch has dedicated NICs that are separated from the other NICs on the same physical server, with the help of physical firewalls. Virtual machines that are part of the external trust zone are connected to the external zone’s virtual switch. This virtual switch is connected to the dedicated NIC for the external zone on the physical host. Similar configurations are also done for the internal trust zone. Any communication between external and internal trust zone VMs has to pass through physical firewalls.

Design 3 - Fully Collapsed DMZ

A fully collapsed DMZ is the most complex design in terms of designing virtual DMZ trust zones using VMware. In this design, all virtual machines are deployed on the same physical host. Along with the virtual machines, the firewalls are also deployed on the same physical host. This means the firewalls are virtual firewall appliances within VMware's ESXi server. In this design, one NIC of the physical host is dedicated to the internet traffic and the second NIC is dedicated to the production LAN traffic. The external and internal DMZ trust zones do not have NICs associated with them. They are separated with the help of dedicated virtual switches and virtual firewalls that filter the traffic passing between the two trust zones and the rest of the network.

Design 4—Traditional Physical DMZ

In a traditional DMZ, the network infrastructure consists of physical servers and physical firewalls. Typically, in a traditional DMZ design the web/FTP server and the DNS server are separated from the database server with the help of a hardware firewall appliance (physical firewall). The external trust zone servers are connected to a dedicated physical switch and the physical servers, as part of the internal trust zone, are connected to a separate dedicated physical switch.

Consolidating all physical DMZ resources into virtual ones, introduces the risk of managing security trust zones, as VMs are flexible in their placement, with features like live migration and high availability. MacDonald and Young (2007) stated that it is possible to collapse all the physical servers into virtual servers, in their research paper "Server Virtualization can Break DMZ Security".

IDSs and IPSs have been used as tools to secure data traffic in virtual environments by equipment distributors having designed software-based appliances that can be integrated into the hypervisor like an API application (Young, MacDonald & Pescatore, 2007). These appliances provide firewall, IDS and IPS features that are smart enough to understand the underlying virtualization layer, unlike traditional firewalls. In a paper published in 2009 by TrendMicro, it was suggested that these appliances can still maintain the integrity of security zones even after the VM is migrated from one host to another. This appliance is called a "coordinated VM watchdog", as it monitors the VM behaviour in the hypervisor.

When designing security zones in virtual infrastructure, MacDonald & Young (2007) suggested that each security zone should be completely separated from one another. A dedicated NIC should be used to host one security zone on a physical machine. In situations where limited NICs are available, VLANs can be used to separate security zones with VLAN tagging. However, a dedicated physical NIC is the best option.

PROPOSED RESEARCH METHODOLOGY

As part of quantitative research methodology selected, experiments were conducted to perform various tests. The experiments were repeated multiple times. Thus, each treatment was applied to many experimental units instead of just one. By doing so, the statistical accuracy of the experiments was increased significantly. The next section explains the use of vulnerability assessment to conduct experiments with replication.

Vulnerability Assessment for Data Collection

This assessment was conducted in a way that would determine the most secure virtual DMZ design deployment. To accomplish this, different virtual DMZ designs, were tested in terms of network vulnerability. The vulnerability assessment and penetration testing methodology approach suggested by Alisherov & Sattarova (2009) was modified to collect and analyse data for this research.

Since the authors of the research were the only persons involved in the setup of the experimental test bed and performing various vulnerability assessment tests, white-box penetration testing techniques were used. The scope of the research was limited to vulnerability assessment phase within white-box penetration testing.

A Methodical Approach to Vulnerability Assessment

The vulnerability assessment experiments, conducted approached the vulnerability assessment process in a sequential way. The following steps describe this iterative methodological approach.

- Step 1 – First a particular virtual DMZ design was determined for conducting the experiment.
- Step 2 – The place (node) for conducting the experiment was determined. In this case, it was placed outside the designed network, which replicated an Internet user.
- Step 3– The IP address of the published website was gathered by pinging the website name.
- Step 4– A network scan was performed on the subnet to see any other live hosts on the subnet.
- Step 5– Network vulnerability assessment tools were used to scan for vulnerabilities on the detected hosts. This test was performed five times to scan for vulnerabilities on each host. This would rule out any inconsistency while collecting data as suggested in principle of replication (Kothari, 2004).
- Step 6– The collected data was recorded in a benchmark matrix and compared to the expected values of a live host.
- Step 7– Return to step 1 for conducting vulnerability assessment on the next design. Continue this process for all the virtual DMZ designs.

VIRTUAL DMZ – EXPERIMENTAL TEST BED

The experimental setup for the research covers the core network design and the technologies that were used to design the experimental setup along with their configuration settings. The core design remained unchanged during the whole research. The variables within this logical network design were the different virtual DMZ designs as discussed.

Five vulnerability assessment tools used to identify which virtual DMZ design was the most secure were Nmap, Tenable Nessus Vulnerability Scanner, GFI LAN Guard, Shadow security Scanner and X-Scan. These tools were selected based on their exploit database as some of them use exploits based on OVAL (open vulnerability assessment language).

DATA ANALYSIS

The following sections discuss the data analysis for each of the individual DMZ designs. The figures describe each vulnerability parameter and the level of accuracy of detection by vulnerability assessment tools, i.e. the success rate of identifying correct information as a percentage. This means, more the vulnerabilities detected, the higher the percentage of vulnerability for this parameter and more likely the parameter is to be exploited by malicious users. Sections below discuss these evaluation charts in brief.

Design 1 - Partially Collapsed DMZ with physical trust zones

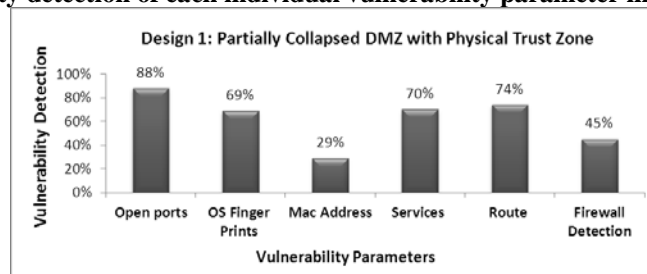
In Figure 1, the percentage of vulnerability for a partially collapsed DMZ, where the trust zones are separated with the help of traditional hardware firewalls, is depicted along the Y-axis. The overall vulnerability for each individual vulnerability parameter was calculated using the data from all vulnerability assessment tools for each virtual DMZ design.

In Figure 1 we can see that the open ports parameter is the biggest security risk within Design 1. The calculated percentage of vulnerability of all tools was as high as 88% for the open ports parameter.

The percentage of vulnerability detected for the route, services and OS fingerprint parameter was analysed and calculated to be 74%, 70% and 69%, respectively. Although these are not as high as the open ports parameter, taken together they can still provide sufficient information to launch an attack.

The percentage of vulnerability for the MAC address parameter was calculated to be 29%, since none of the tools could provide sufficient information regarding the MAC address.

Figure 1: Vulnerability detection of each individual vulnerability parameter in a fully collapsed DMZ.

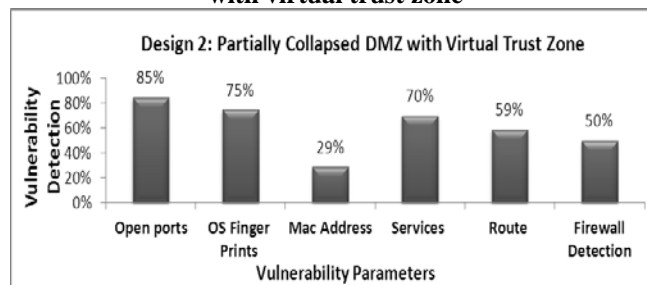


Design 2 - Partially Collapsed DMZ with virtual separation of trust zones

We can clearly see that the open ports parameter with 85% vulnerability is the easiest parameter to exploit when wanting to hack a server. The OS fingerprint parameter was the second most vulnerable; with 75% as the level of vulnerability and the third highest vulnerable parameter was the services parameter with 70% vulnerability.

The level of vulnerability detection for the route parameter was 15%, as compared to 74% in Design 1. However, the vulnerability detection of firewalls in Design 2 was 50%, which is an increase of 5% compared to Design 1. The scan tools were again accurate in 29% of cases in extracting information of the MAC address.

Figure 2: Vulnerability detection of each individual vulnerability parameter in a partially collapsed DMS with virtual trust zone

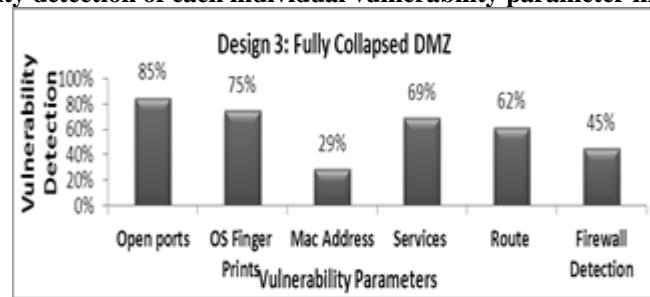


Design 3 - Fully Collapsed DMZ

In a fully collapsed DMZ design, scanning tools extracted information about open ports with an accuracy of 85% (Figure.3). Again, like in all the other DMZ designs, this was the most vulnerable parameter. MAC address information produced by the tools had an accuracy of 29%. The scan tools produced an accuracy level of 75% for the OS fingerprint parameter. This was followed by the services and routes parameter with a vulnerability detection of 69% and 62%, respectively.

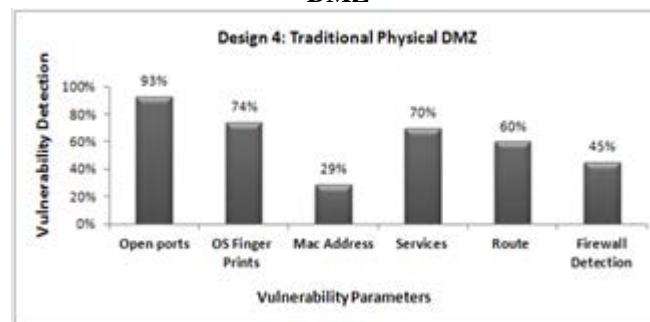
As we move to the traditional DMZ design, we can see that the vulnerability detection for open ports was as high as 93% (see Figure 4). Second most accurately detected parameter was the OS fingerprint with a vulnerability detection of 74%. The services parameter was the third most accurate detected parameter with an accuracy of 70%. The scan tools produced unchanged information with an accuracy of 29% in detecting the MAC address, just like in all other DMZ designs. The scanning tools produced accurate results for the route parameter in 60% of cases and in 45% for the firewall detection parameter.

Figure.3- Vulnerability detection of each individual vulnerability parameter in a fully collapsed DMZ



Design 4 – Traditional Physical DMZ

Figure.4- Vulnerability detection of each individual vulnerability parameter within a traditional physical DMZ



DISCUSSION, CONCLUSION AND LIMITATIONS

The aim of this research was to determine which virtual DMZ design would be the most robust to use. From the results of experiments conducted, the findings describe factors that could affect the choice of a particular DMZ design. The risk factor was determined by aggregating the percentage of vulnerability detection discussed in earlier sections for each DMZ design and comparing it with remaining three designs. The aggregated percentage risk factors for the 4 designs were 62.5% for Design 1, 61.3% for Design 2, 60.8% for Design 3, and 61.8% for Design 4. The percentages have been rounded off to the nearest integer value. Based on the data analysis conducted in the previous section, there is only a maximum difference of 1.7% in the vulnerability risk factor between Design 1(most) and Design 3(least). However, the designs could be inferred to vary only about 1% over all four DMZ designs as depicted in Figure 5.

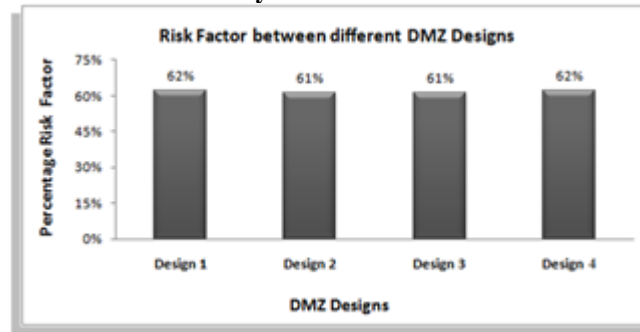
The overall risk factor for Design 1 and 4 was calculated to be 62%, as compared to 61% for Design 2 and Design 3. While Design 1 is the partially collapsed DMZ with physical trust zone, Design 2 is the partially collapsed DMZ with virtual separation of trust zones, Design 3 is the fully collapsed DMZ and Design 4 represents the traditional DMZ.

Based on the results depicted by the experiments conducted in this research, generally all three virtual DMZ designs were equally secure. The difference lies in the implementation of each DMZ design. This includes the way security policies are implemented and the choice of firewall vendors that is reflected in the quality of their filtering mechanisms.

As shown in Figure 5 above the risk factor of all three DMZ designs is almost equivalent to the risk factor of traditional DMZs. This implies that virtual DMZs are as robust or as weak as traditional DMZs. The implementation of a DMZ design depends greatly on how much money an organization is willing to invest in designing and implementing a virtual solution. In conclusion the findings revealed that there is not much difference in the security concerns between a Physical and Virtual DMZ. However, the implementation of a

virtual DMZ would be preferred over a Physical DMZ in view of the business case for implementing virtual DMZs offers other advantages like savings in ease of administration and power cost savings over the Physical DMZ design.

Figure 5- Overall Vulnerability Risk Factor across different DMZ designs



In this research, the following things could not be considered due to the limited scope of the project and could be further extended by:

- Comparing VMware ESXi's implementation and administration of virtual DMZs with other bare-metal virtualization solutions like Citrix' XenServer, Microsoft Hyper-V; etc.
- Evaluating the security issues introduced by other virtualization solutions to an existing network, as compared to VMware ESXi virtual solution. Compare performance vectors of other virtualization to VMware's ESXi.
- Conduct similar vulnerability assessment tests by placing the web server in a public cloud, i.e. in different datacentres where they provide VPS (virtual private servers).
- Assessment based not just on MAC, IP addresses, TCP/UDP ports, services open, OS finger prints, routes and firewalls, though important is to be supplemented by vulnerability of applications running. This is in view of the increased application based attacks. The firewalls are now expected to understand and pick up SQL, CSS, and command line injection attacks. Hence the tools used for assessments to be capable of generating application layer attacks for both the physical and virtual environments.

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OPTIMIZATION AND EFFICIENT PORTFOLIOS THROUGH THE LENS OF OVERREACTION STRATEGY

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ABSTRACT

This paper has a purpose to present an initial analysis of a research project in progress, whose aim is to develop a new method of optimizing investment portfolios through the occurrence of the overreaction effect. So, we proceeded to a data collection of monthly closing price of the shares traded at Bovespa from January 1995 to December 2013, and then calculated their monthly returns. After that, were formed two portfolios of shares - one with the 15 who achieved the best performance in the year (winning) and another 15 with the worst performance in the same period (losers) - rebalanced every period, and analyzed their performance in the following sixty months. Therefore, the period of formation of the portfolios is 1995-2008, and analysis, 1996-2013. We used data of daily return in the year of formation to calculate the average return and standard deviation, and then were optimized portfolios as proposed by Markowitz (1952) and otherwise created by the authors, prioritizing higher weights to stocks with less risk and also with lower return, hoping that the results of losers portfolios will reverse and they will be larger than the results of winners portfolios. The results demonstrate, based on the results of hypothesis testing and the regressions with panel data that we cannot reject the hypothesis of overreaction effect in Brazil in the period, and also can not reject the hypothesis that the effect of the opposing strategy is potentiated by portfolio optimization like proposed by Markowitz (1952) and, even more, the new proposed method of optimization, seeking the lowest return in the period of training and maintaining the same level of risk.

Keywords: Overreaction strategy, portfolio selection, new method of optimization, panel regression, hypothesis test

INTRODUCTION

In studies about the capital market, there are researches performed to understand the behavior of stocks in the long run. Often, these studies seek to identify investment strategies based on anomalies of market that, in the long run, provide returns above the average for investors.

In the United States, recently researches shows clearly that the behavior of stock returns in the long run is reversed, more known as overreaction strategy. In this sense, the primary work in this area, that was done for DeBondt and Thaler (1985), which showed the reversal of returns from three years, with the most significant results in five years.

In addition to this, other studies, such as Chopra, Lakonishok and Ritter (1992) identified the overreaction in the USA. In Brazil, several authors as Bonomo and Dall'Agnol (2003); Source Neto and Carmona (2005); Poli and Oda (2005) and THE AUTHORS (2012) studied both Overreaction Strategy and the Momentum Effect in the Brazilian capital market.

Significant results that indicate the existence of overreaction effect in both the USA capital market and in the Brazilian market take to a contradictory thinking when reflects on the Portfolio Selection by Harry Markowitz (1952), since the selected assets to the portfolio are those that have the "best" relationship between risk and return, seeking the highest return at the lowest risk possible in the formation period.

This "best" relationship is the contradictory question according to the overreaction effect, because by following this strategy, investors are looking for stocks with bad performance in the formation period, with the expectative of reversal of the long-term returns, being in total disagreement with the Portfolio Selection Theoru. When considering the model of Markowitz (1952) for the definition of each weight in the portfolio asset, to get the point of minimum variance while maintaining the same level of return, stocks with greater weight in the portfolio will be those that have a higher return and a lower variance, going against the idea of investment in the overreaction strategy.

This issue is the core of this research. Considering that the overreaction indicates that losers in the forming period tend to revert your returns within five years later, then the portfolio selection proposed by Harry Markowitz could be used otherwise to consider, in the forming period, assets with the lowest risk and also the lowest return in order to optimize the overreaction strategy of investment.

Thus, the objective of this research is to test the overreaction strategy, proposing an optimization of this strategy through a change in the portfolio selection proposed by Harry Markowitz (1952), regarding the occurrence of overreaction, passing this model to consider that, for the period of portfolio formation, it is interesting that the assets have the lowest risk and the lowest possible return.

The work is divided into four sections, including this introduction: (i) review the literature related to portfolio selection proposed by Harry Markowitz (1952) and overreaction strategy; (ii) methodological procedures performed to the realization of the study; (iii) analysis and discussion of the results obtained, representing the descriptive results using graphs; moreover, are analyzed and discussed the results based on averages tests and econometric regressions with panel data; and (iv) the main conclusions of the research. Finally, the references are presented.

LITERATURE REVIEW

As explained in the introduction, this study is to cast a new perspective on an alternative way to use the second stage of portfolio selection proposed by Harry Markowitz (1952), in order to optimize the use of overreaction strategy, also called contrary strategy. Therefore, the theoretical basis presented is related to matters of efficiency and portfolio optimization, and how this reversal effect can generate abnormal returns for investors by overreaction strategy.

Portfolio Selection and its Performance

With the intent to describe the theoretical basis on which sustains all study in Finance with regard to the formation of the asset value, we must go back in time to the most important point in the evolution of scientific studies in the area. Going back to the 1950s for a reconstruction of scientific facts associated with the formulation of one of the most important theories of finance, which is the Portfolio Selection (MARKOWITZ, 1952), we find the seminal work published in the development of the theory, wich clarify that the choice of assets to compose an investment portfolio basically follows two stages.

The first stage, according to Markowitz (1952), begins with observation and experience and ends with beliefs about the future performance of the chosen titles. The second starts with beliefs and culminates with the choice of the portfolio, and is with this stage that the author undertakes and develops the optimization methods of the assets chosen in order to achieve the highest return for a given level of risk or lower risk for a given point of return.

The portfolio variance, as established in the Markowitz model (1952), involves the weights of the assets that are the applications in them, besides the contribution of each to the risk of the portfolio, measured by the variance and the covariance between each pair of component in the portfolio, as expressed in the equation below.

$$VAR = \sum_{i=1}^n X_i * (\sum_{j=1}^n X_j * \sigma_{ij}) \quad \text{Eq. 01}$$

where X_i is the share of each asset and σ_{ij} represents the covariance between the pair of active, if i is different of j and variance, if i equals j .

It should be clarified that there was awareness by the above author that there could be market imperfections that invalidate his hypothesis of diversification as an instrument of risk minimization and return maximization, those are the basic premises of a rational investor.

In the 1960s, Sharpe (1964), Lintner (1965) and Mossin (1966) appropriated the Markowitz Theory (1952) to develop the traditional pricing model of capital assets, originally referred to as Capital Asset Pricing Model - CAPM. Sharpe (1964) traces the Security Market Line – SML in an area previously defined by Markowitz (1952) as efficient frontier, which represents the best combinations of bonds in terms of risk and return, and these variables measured by statistical procedures, in case, mean and standard deviation.

Faced with the finding of Markowitz (1952) that the risk of a portfolio, measured by the standard deviation was less than the sum of the standard deviations of the individual components of portfolio, and thus highlighting the benefits of diversification, came from other authors interest to know how many assets become an adequately diversified portfolio. Evans and Archer (1968) did a pioneering study in this type of analysis, which concluded that the ideal number to be held in the portfolio is 10 shares, since the addition of titles beyond this amount increases transaction costs without significant reduction of risk.

In contrast to the above results, Statman (1987) postulated that the evidence of Evans and Archer (1968) are misleading and therefore the optimal number of shares is at least 30, to a group of investors classified as borrowing investors, and 40 assets to another group called lending investors. In this case, the author in question took into account investment part of resources in risk-free assets by investors, which would have the option to lend or borrow at risk-free rate concurrently with investments in the stock portfolio.

In Brazilian capital market, the analysis of the number of stocks that makes a diversified portfolio was performed by Brito (1989) using the same methodology of Evans and Archer (1968) and Sharpe (1972). He identified that the minimum number of assets should be 8 and, besides 15 assets, the benefits of diversification are no longer noticeable in terms of a significant reduction in the standard deviation of the portfolio.

Ceretta and Costa Jr (2006) used monthly prices of 158 stocks of Bovespa, from 1993 to 1997 and therefore already covering certain period of economic stability. These authors formed 14 sizes of portfolios, with the mounting of 50 portfolios for each size, thus a total of 700 portfolios. Replicating the international methods of analysis mentioned, the conclusion was that the number of assets should range from 12 to 18 stocks.

Anomalies of Markets and the Overreaction Effect

A market is efficient when the available information are instantly incorporated into asset prices, and it is not possible to a certain group of individuals or isolated groups achieve extraordinary gains in the acquisition of these assets (FAMA, 1970). As the case of any individual or group by itself determine the market value of a

product or service, the consumer's perception or certain categories of investors and their behavior patterns in determining the value of assets may seem irrelevant, unless when it identifies the existence of market anomalies.

Market efficiency is not a finished event, but occurs at levels that depend on the incorporation of information available to the market price of the assets. In Fama (1970) classification of efficiency, these levels are: weak, semi-strong and strong. At low level, only historical data are incorporated into prices, so that investors can achieve abnormal returns based on the public disclosures of corporate earnings. The semi-strong level already incorporate these disclosures to the prices and therefore the extraordinary returns would come only by private information. The strong form, in turn, is constituted as an optimum level of efficiency that would make it impossible to obtain abnormal gains by investors, even if they keep inside information (op. Cit., 1970).

In opposition to hypothetical market efficiency, market anomalies can be characterized by the price trends that favor select groups of investors who are able to obtain abnormal returns, starting from certain information available. According Camargos and Barbosa (2003), the market anomalies can be classified into two groups: calendar, corresponding to price effects deriving from certain times, such as day of the week or month; and value, in this case it comes to company attributes, such as size or market value, earnings, book value, among other factors.

If there is no consensus on the level of efficiency in the capital markets, even the weak form efficiency is questioned. Thus, we can assume that historical values of stock returns can be used to predict future earnings. If this prediction proves maintenance of returns, it is the Momentum Effect. On the other hand, when occurs a reversal of the return results, the effect is known as overreaction, and it is expected behavior of stock returns in the opposite direction to past results.

Presents the basic concepts of these behavioral effects, we seek to first present the results of classical studies in order to clarify not only the periods in which these trends are noticeable, but also and mainly the explanatory factors of maintenance movements or reversal of returns. It can be assumed initially that occurs the overreaction effect in the long run, as identified by DeBondt and Thaler (1985) and Chopra, Lakonishok and Ritter (1992). For the latter authors, it was verified the influence of the size factor, measured by market value, and found that smaller firms leverage the reversals. In both studies, the period considered as long-term is five years, from three years in DeBondt and Thaler analysis (1985). In turn, the momentum strategy is based on the short term, consisting of the investors' expectations for which stocks that showed significant recovery in the recent past are likely to continue growing in the future, being the Jegadeesh and Titman (1993) studies in the USA market one of the classic on this theme. Hypothetically, this effect can be verified based on the persistence of returns, though there is evidence against the efficiency in its weak form and which presupposes inability of investor to predict future returns based solely on historical information of the stocks, since this information already are incorporated into the price (FAMA, 1970, 1991).

La Porta et. al. (1997) examined the market reactions to earnings announcements in order to determine if investors make mistakes in pricing assets, ranked in roles with low trading volume and undervalued by the market, and stocks with high liquidity. Thus, it was verified that if earnings surprises in the five years following the formation of the portfolios were consistently positive for companies with low trading volume, and negative for companies with high liquidity. The database was the quarterly earnings announcements of companies listed on NYSE, AMEX and Nasdaq, from the 2nd quarter of 1971 to the 1st quarter of 1993 and are excluded ADRs, closed-end mutual funds, among other assets.

Presenting evidences that the momentum effect was not a biased result inherent in the period documented by Jegadeesh and Titman (1993), which was from 1965 to 1989, the same authors maintain that the effect continued in the 1990s (Jegadeesh and Titman, 2001), now being analyzed with greater emphasis on behavioral aspects, possibly explaining of maintenance of short-term returns. Moreover, they confirm the overreaction effect on the period of thirteen to sixty months, corroborating the results of authors like DeBondt and Thaler (1985) and Chopra, Lakonishok and Ritter (1992).

Looking for a possible explanation of the momentum effect in Brazil from the disclosure of quarterly results, Procianoy and Antunes (2001) identified reactions of investors to the disclosure by companies, refuting

the assumption of market efficiency in its semi-strong form and endorsing the possibility of earnings based on the momentum strategy. In this case, if a company has positive returns, they can be supported on favorable information about its quarterly results.

In contrast to the evidence from studies such as Jegadeesh and Titman (1993, 2001, 2002), Chan, Jegadeesh and Lakonishok (1996), and Procianny and Antunes (2001), Bonomo and Dall'Agnol (2003) found evidence of overreaction in the Brazilian capital market in the relevant time frame to momentum in the USA. Unlike DeBondt and Thaler (1985), found that this is more intense in the short term, rejecting the momentum effect hypothesis in this time. Thus, there is the occurrence of significant returns in the short term for investors who adopt the opposite strategy, and momentum anomalies was not being identified for short periods, as expected based on studies conducted in the USA capital market.

As stated above, the identification of returns patterns starting from past results as the momentum effect, implies distortion of market efficiency hypothesis. Testing this hypothesis in its weak form, Minardi (2004) selected 649 stocks traded in Brazil, between September 1994 and August 2000, estimating a regression equation in which it appeared the corresponding intercept the historical return values. Based on the study of Minardi (2004), it was concluded that exist basis for an analysis taking strategies based on historical return information, such as momentum and overreaction, since it was found that in general, even with the consideration of brokerage, evidence of a significant relationship between historical information and future return.

Contrary to the evidences founded by Bonomo and Dall'Agnol (2003), Fonte Neto and Carmona (2005) rejected the hypothesis of momentum and overreaction, concluding for the low efficiency of Brazilian stock market. This finding was based on an analysis of Bovespa's stocks from June 1994 to June 2004, when winning and losing portfolios being created and analyzed the performance in the six, twelve, eighteen and twenty-four months after the formation of portfolios.

Despite the verification of persistence of returns within six months later, that in principle could be as favorable evidence to the momentum strategy, was not identified statistical significance of this result (op. Cit., 2005). Furthermore, it was also found no significant reversal of the following twelve months, which endorse the opposite strategy. Additionally, the strategy effectively identified in the USA by Jegadeesh and Titman (1993 and 2001) was tested by Fonte Neto and Carmona (2005) in the Brazilian market in each of the next 24 months, also being refuted this market.

In one more analysis of the reaction to earnings announcements that possibly explain the short-term persistent returns, Ortolan (2007) studied the reactions of the stock market in Brazil and Mexico to disclosures of these results by companies, analyzing the returns in the previous five days and subsequent to the event and on the day of release, during the period from December 2000 to January 2006. The hypothesis tested was that the disclosure of quarterly results cause abnormal reactions in stock returns, having noticed that the Brazilian stock market can be influenced by earnings announcements and demonstrating inefficiency in this regard. Given these evidences, it can be seen the returns maintenance on the short-term trend, as well as in the USA market, where the maximization of income is no longer present after six months following the release of earnings.

As further confirmation of momentum effect in a short-term in the Brazilian stock market, Piccoli (2009) et. al. undertook a corresponding analysis for the period from January 2005 to July 2008, calculating abnormal returns of the 55 most liquid stocks on Bovespa for the market index and classifying the same into two groups: winners and losers. The authors followed the performance of the stocks up to 36 months after the formation of the portfolios, establishing means comparison tests from which claim there is a momentum effect at the 10% significance level.

The classical authors of this strategy return the handle on the subject emphasizing the relevance of the strategy and that it is constituted as one of the strongest evidences against market efficiency (Jegadeesh and Titman, 2011). Looking for demonstrate explanatory factors of this market anomalie, make a survey of the main studies already carried out to demonstration of the theoretical and empirical background of the momentum effect, being the behavioral factor a major cause of the profit maintenance.

The reactions to earnings announcements are also highlighted as explanatory of the persistence of returns around six months (op. cit., 2011), which in a way also contributes to the increase in liquidity of the stocks and possibly making certain information about the companies generate expectations beyond normal for stocks that are already winning.

Looking at the choice of the momentum strategy as the "first stage" theory of Markowitz, the Portfolio Selection (1952), these are presented in full compliance, as is expected to continue winning stocks with positive returns in the short term, and the second stage Markowitz (1952) enhances the Momentum effect to give more weight to stocks that bring to the result of the portfolio a higher return while maintaining the same level of risk, or a lower risk by maintaining the same level of return.

Already when choosing the overreaction strategy, hoping that in the long term losers stocks bring higher returns than winning in the same period, and making the selection of stocks (Markowitz first stage) from the choice of this strategy, the second stage of Portfolio Selection Theory creates a conflict with this choice of investment strategy, because it will give greater weight to the stocks that have a higher return in the past at the same level of risk, and the overreaction expect a better performance of stocks with the lowest returns in the period formation.

Therefore, the second stage proposed by Markowitz (1952), when used in conjunction with overreaction strategy, decreases the potential of the strategy chosen by their nature. So the research question we seek to answer with this study consists of: an adaptation of the second stage of the Portfolio Selection Theory to value overreaction strategy can enhance their effect on the return of this investment choice? The adequacy proposed by the authors is presented in the following section, the methodology.

METHODOLOGICAL PROCEDURES

The basic purpose of this study is to test the existence of overreaction effect in the Brazilian capital market, considering an initial expectation that the results of stocks analyzed in a given year reverse in the next five years. It also seeks to analyze the use of the second stage of the Portfolio Selection Theory proposed by Markowitz (1952) enhances the effects of overreaction, both in its original format as an adjustment proposed by the authors for the determination of weights does not conflict with the chosen strategy.

The first hypothesis tested in this study is that certain stocks with performance in a recent period (one year) tend to reverse the results in a long-term future (five years). To achieve this purpose, were created in each period two portfolios, one with the 15 stocks that performed best during the formation year and the other with the 15 worst stocks during the same period, the two portfolios rebalanced each year. The determination of 15 stocks in each portfolio complies with the authors Evans and Archer (1968), Sharpe (1972) and Ceretta and Costa Jr (2006) in terms of number of assets that make a diversified portfolio.

The database collected for this study were extracted from the System Econômica, and they are the closing prices of all stocks traded on Bovespa, from December 1995 to December 2013. These data were the basis for obtaining the returns. Since the objective is to monitor the stocks in the five years following the formation of portfolios, these were formed from 1995 to 2008, and analyzed from 1996 to 2013. The detailed methodology of portfolio formation is presented in the following section.

In relation to the criteria used to select the component stocks of the sample, there are the only be traded on the Bovespa, was established to present the minimum monthly trading during the period analyzed, and removed the stocks that were not in accordance with this requirement. Excluding ADRs, indexes and other assets, and composing the sample only active stocks (canceled were disregarded), each year the number of stocks changed by rebalancing account.

To organize the data extracted from Econômica, as well as for the preparation of graphics used in the presentation of results, we used the spreadsheet of Microsoft Excel 2010. For multiple comparisons tests, we used the SPSS 15.0. As for the econometric tests regression with panel data, we used the Eviews 7.0.

Portfolio's Formation and Descriptive Analysis

With the objective to verify the existence of overreaction effect on the Brazilian stock market, we collected data on closing prices for subsequent calculation of monthly returns, and the period for investigation from January 1995 to December 2013. Thus were formed in each period two portfolios, each consisting of 15 stocks, with a losing (lower returns) and another winner (higher returns), totaling 28 cards for the analysis of five years, being 14 winners and 14 losers.

These portfolios were classified into winners and losers according to the return results of the stocks in the year in which they were formed, and this formation in the last twelve months. The performance was evaluated in the 60 months after the formation of the groups in the above periods, in order to verify the behavior of these stocks involving the long-term focus, in this case five years.

The portfolios of 1995, in the case of five-year analysis and formation of a year, for example, having been formed based on the monthly average abnormal return in the same year, and are classified in descending order. After that, the behavior of the 15 winners and 15 losers was followed by the month of December 2000, which corresponds to a period of 60 months. Similar procedures were applied in subsequent years, until December 2013.

Regarding measuring the cumulative abnormal return, this study estimates that variable from the difference between the return of each stock and the average of all of them in each period, as shown below.

$$\hat{u} = Rjt - Rt \quad \text{Eq. 02}$$

where \hat{u} is the cumulative average abnormal return, Rjt is the return of stock j on the month t , and Rt is the monthly average of all stocks in the sample in a given year, considering that the portfolios are rebalanced annually.

In addition to the research based on the behavior of the stocks during the periods mentioned, also carried out a similar analysis to that performed by Jegadeesh and Titman (1993), and produced results associated with the difference between the extreme portfolios (winners less losers) during the intervals of time later to the various periods of formation, which is called the differential return.

Optimization of the Portfolios and Hypothesis Testing

To perform the optimization of portfolios, we must first set the hypotheses of this study, in order to make clear what will be tested in the comparisons between portfolios. Therefore, it follows the definition of the null and alternative hypothesis.

- H0: There is no significant difference between stock returns in periods of formation and the yields recorded in the sixty months later.

$$E(\hat{u}_{Vt} | F_{t-1}) = E(\hat{u}_{Pt} | F_{t-1}) = 0 \quad \text{Eq. 03}$$

- H1: There is overreaction in the stock market in the long term, which is a period in which winning stocks (losers) are now losing (winning), and this result can be enhanced through the second stage of the Portfolio Selection Theory.

$$\begin{aligned} E(\hat{u}_{Vt} | F_{t-1}) &< 0 \\ E(\hat{u}_{Pt} | F_{t-1}) &> 0 \end{aligned} \quad \text{Eq. 04}$$

In the above equations, $E(\hat{u}_{Vt} | F_{t-1})$ corresponds to the expected value of the winning portfolios t months after the formation period F_{t-1} and $E(\hat{u}_{Pt} | F_{t-1})$ is the expected abnormal return of the loser portfolio in t subsequent months. As can be seen, the differential return is the series that will be analyzed.

Demonstrating through the not rejected of the alternative hypothesis that the investment in contrary strategy exist, being statistically significant, it starts the second stage for the portfolio selection model proposed by Markowitz (1952).

According to Markowitz (1952), the aim was to create an method of portfolio optimization in which, given a certain level of risk, investors want to maximize the return or, given a certain level of return, if one wishes to minimize the risk.

Through this objective, Markowitz (1952) developed this methodology considering the return of the portfolio as the weighted average of the individual asset returns, and the weight arbitrated by the investor, as shown below:

$$R_C = \sum_{i=1}^n R_i \times W_i \quad \text{Eq. 05}$$

where R_C is the return of portfolio, R_i is the return of the asset and W_i is the weight of each asset in the portfolio.

The author also developed a formula for calculating the variance of the portfolio, as the sum of the squares of the differences between the return on the portfolio in period T and its average return. The formula is presented as follows:

$$\sigma_C^2 = \sum_{t=1}^n (R_{Ct} - \bar{R}_C)^2 \quad \text{Eq. 06}$$

where σ^2 is the variance of portfolio, R_{Ct} is the return of portfolio in period t , and \bar{R}_C is the average return on the portfolio in the period.

Gonçalves Junior, Pamplona and Montevechi (2002) were used spreadsheets to optimize portfolios focusing on small investor, calculated by Solver, a Microsoft Excel add-in, the best weights for the assets in the portfolio, which minimized the risk (measured by portfolio variance) while maintaining the same level of return or return maximized while maintaining the same level of risk.

This optimization of portfolio weights can also be done by minimizing the variation coefficient, a statistical measure that indicates the relative dispersion, measured by the ratio between the portfolio of Standard Deviation and the return of the portfolio, as explained below:

$$\text{Variation Coefficient (VC)} = \frac{\text{Standard Deviation}}{\text{Return}} \quad \text{Eq. 07}$$

According to the standard deviation of concepts such as risk measure and return as desirable performance measure, we expect a lower standard deviation and a higher return, and the search so by minimizing the coefficient of variation. The optimization of portfolios can also be made, therefore, seeking the lowest coefficient of variation, which indicates the best relationship between risk and return.

However, when considering the use of overreaction strategy, this best relationship becomes contradictory, because *the search in the formation period are for the stocks with the lowest risk and also the lowest return*, hoping that these returns to recover within five years, exceeding the return of the winners.

Thus, the proposed adaptation of the second stage of Markowitz Portfolio Selection model (1952) consists primarily of prioritizing higher weights for stocks with lower risk and also the lowest return in order to meet the expectations of overreaction strategy in formation period, waiting for the losers have higher return than winners in the long run. To do this, we propose to minimize a modified variation coefficient, represented as follows:

$$\text{Variation Coefficient}_{\text{modified}} = \text{Standard Deviation} \times \text{Return} \quad \text{Eq. 08}$$

Therefore, minimization of the modified variation coefficient is looking for the lowest risk (as measured by the standard deviation) and the lowest return. The analysis will consist in optimizing the weights of the portfolios of the fifteen stocks with the best performance and fifteen with the worst performance during the analysis period, both by the traditional mode (using the traditional variation coefficient) as the new form proposed by the modified coefficient of variation.

After that, we intend to compare the returns from the portfolios optimized five years later, through hypothesis testing, in order to confirm the hypothesis that portfolio losers optimized in the new format has higher returns five years later than the losers optimal in the traditional way. The same will be done with the winning portfolios. The hypothesis test to be done will depend on the data distribution.

Incorporation of Variables into the CAPM and Medium Comparison Tests

With the intent to identify if reversals lead to a higher risk premium, was done in this study the incorporation of an additional variable to the market risk premium already modeled on the CAPM as an independent variable, according to the following equation, which has as dependent variable the differential return.

$$R_{Differential} = \alpha + \beta_1(R_m - R_f) + \beta_2.(R_{formation} - R_f)) \quad \text{Eq. 09}$$

The first variable is the market risk premium already typical of the CAPM, with the expectation that your parameter β_1 is presented positive and significant, demonstrating that stocks follow the market, in this case represented by the Ibovespa index (R_m). The second variable is the cumulative return on the formation period, it is expected that the parameter β_2 is negative and significant, because it would show that the cumulative return on the formation period influence on later outcomes in a contrary form and do not reject the overreaction effect. After optimization of the portfolios be performed using the Solver in Microsoft Excel 2010, the 28 portfolios data (14 losers and 14 winners) will be systematized in Excel as follows; in each reporting period, will be presented the cumulative returns to the following portfolios:

Frame 1 – Portfolios to be compared by Hypothesis Tests

Loser portfolio not optimized	Winner portfolio not optimized
Loser portfolio optimized by Markowitz (1952)	Winner portfolio optimized by Markowitz (1952)
Loser portfolio optimized by the proposed method	Winner portfolio optimized by the proposed method

Source: prepared by own

The purpose of this systematization is to perform mean comparison tests between the portfolios of the period, first comparing the winner portfolio with the loser; after, comparing the winning and losing, both being optimized; then, compares the portfolio optimized by the authors proposed method and, finally, the winning and losing portfolios together by different methods.

ANALYSIS AND DISCUSSION OF RESULTS

The analysis is divided into two sections: first, it is presented the descriptive evidences by analyzing the graphs, only showing indications of results that will be proven or refuted through econometric tests. In the second section, we proceeds to a statistical analysis by regression with panel data and mean comparison tests.

Descriptive Results

As indicated in the methodology, the formation procedure of the portfolios was made by calculating the average abnormal return in the formation period (one year), if choosing then fifteen stock with the best performance to compose the winning portfolio, and fifteen worst to compose the loser portfolio. The average cumulative abnormal returns portfolios in sixty months later are shown in Figure 1 below.

Figure 1 – Average abnormal return in five years

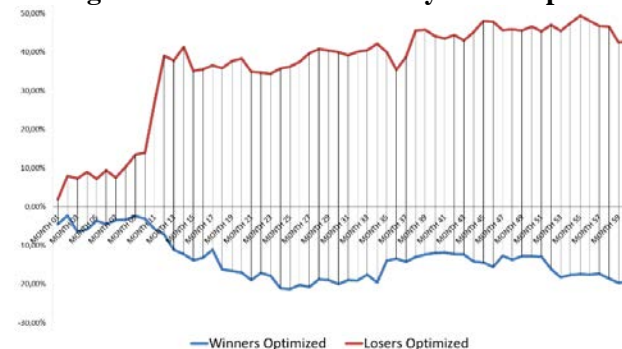


Source: Prepared with data Economática

Figure 1 shows descriptively that the losers in their formation period bring greater results than the winners sixty months later, and the average cumulative abnormal return of losing is about 18% higher than the winning. It also realizes the overreaction effect on short-term (1 month), and handling of returns until the 11th month, suggesting the momentum effect in the short term (up to one year).

After this step were collected in Economática the daily closing data of the thirty stocks selected for the two portfolios (winning and losing) in each year, calculated its daily returns and the covariance matrix. Then, it was made the optimization by using the *Solver*, another Excel add. The command asked the Solver was that maximizes the return on the portfolio, and for this altered the weights invested in each asset. The restrictions have been placed on the variance should reduce or at least maintain, no weight could be negative and that the sum of the weights must give 100%. The mean cumulative abnormal returns of 14 optimized winning portfolios and 14 optimized losing portfolios are shown in Figure 2 below.

Figure 2 – Average abnormal return in five years of optimized portfolios



Source: prepared with data Economática

Reflecting on the Figure 2, this brings interesting descriptive evidence, because it is expected that with the optimization, are prioritized stocks that bring higher returns at the same level of risk in the formation period. On the losing portfolio, this is what happens: the prioritization of weights for the stocks "lost less in the formation period" has brought an average abnormal return in sixty months later approximately 43%. The result is that if the investor had invested in the losing portfolio, he would gain about 62% more than winners.

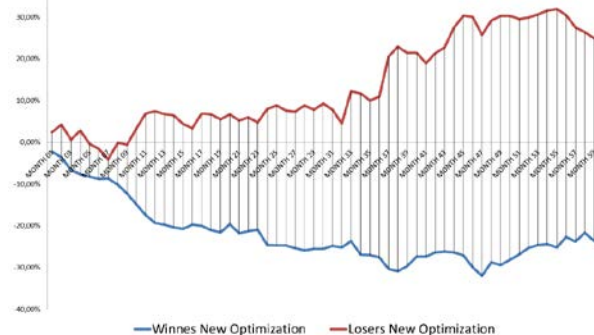
In winning portfolios, prioritization weights for stocks that "have earned more in the formation period" brought a negative average cumulative abnormal return of approximately 19%, showing further overreaction effect demonstrated by the intensity of higher / lower return. That is, in terms of descriptive evidence, the higher the return stocks of the formation period, the more it damages brought five years later. This effect did not occur with the losing portfolios, bringing the question: if prioritizing the optimization of losing portfolios were for stocks with the smallest losses among them and brought a greater cumulative abnormal return, which would be no greater result prioritizing stocks with the worst performance, which would increase the effect of overreaction?

In view of this challenge, the same data daily returns and covariance matrix already calculated were

utilized, and were repeated optimizations, now requesting the Solver the following command: modify the weights to minimize the return of each portfolio, maintaining the same level of risk (as measured by the variance of the portfolio). This calculation goes against the proposed by Markowitz (1952) and the purpose of the rational investor (who seeks the highest return at the lowest risk), but it's effect assuming the logic of overreaction that stocks with lower returns on formation period bring greater returns in the analysis, so the weights being greater for these assets.

The portfolios of each year have been optimized according to this proposal, and the mean values of the portfolios are shown in Figure 3, below. As can be seen, which was evidenced was not the expected. Although the losers continue to earn more than the winners, highlighting the overreaction effect, the difference between them was not higher than that found in traditional optimization, earning the investor 50% more to invest in the losing portfolios at the expense of winning.

Figure 3 – Average abnormal return in five years of the portfolio optimized by the method proposed by the authors (lower risk and lower return)



Source: Prepared with data Economática

Yet in all three cases analyzed (portfolios formed by the average, for the optimization and the proposed new optimization model), there is descriptive evidence of overreaction effect, in which the losers stocks in the formation period earn sixty months later than the winners in same period. Comparing all methods, the traditional optimization method was what brought the highest average abnormal return differential.

Statistical Results

The statistical results presented below are divided into two main topics: first, show the results of mean comparison tests between different portfolios formed and subsequently presents the results of the regressions with panel data. Within the hypothesis testing, tests are made between the winning and losing portfolios every year, for the three analysis methods. In the regression analysis with panel data, a regression is performed for each analyzed methods.

Results of Hypothesis Testing

Table 1 below shows the results of mean comparison tests between the average cumulative abnormal returns of the winners and losers portfolios in the fourteen years of analysis and analyzed by the three methods. We tested the normality of all the data series using the Shapiro-Wilk test and the results obtained were in vast majority of non-normal series. So, the Wilcoxon test was used to analyze the comparison between two portfolios and the paired t test only for the portfolios of 2001 and 2002 when using the new optimization method.

The results marked in gray and bold indicate the tests where the loser portfolio in the formation period has a significantly higher return five years after than the winner portfolio in the same period. Calculating the cumulative abnormal returns by the average of stock returns, the overreaction is presented in seven years of the fourteen analyzed, as can be seen in the first sequence of columns indicative of test results in Table 1.

Using traditional optimization, which aimed to the highest return in the formation period maintaining the same level of risk, the overreaction effect appears statistically significantly in eight of the fourteen periods analyzed, thus showing an improvement over the definition of equal weights for all stocks.

Finally, proposed by the authors optimization method, which aimed the lowest return in the period of formation while maintaining the same level of risk (with a view to enhance the effects of overreaction), the results of the Wilcoxon test and Paired t test (only for the years 2002 and 2003) had the overreaction effect in nine of the fourteen years analyzed at a significance level of 5% and another year (1999) at a significance level of 10%, totaling 10 years that the overreaction effect might be identified.

Table 1 – Results of Hypothesis Tests by Year

Comparison between Portfolios	Return of the Portfolio by the average			Return of the Portfolio by the Traditional Optimization			Return of the Portfolio by the New Optimization Method		
	TYPE	RESULT	SIG.	TYPE	RESULT	SIG.	TYPE	RESULT	SIG.
WINN_1995 - LOS_1995	Z	-6.493	W 0.000	Z	-1.325	L 0.185	Z	-5.411	W 0.000
WINN_1996 - LOS_1996	Z	-5.786	W 0.000	Z	-.582	W 0.561	Z	-6.736	W 0.000
WINN_1997 - LOS_1997	Z	-6.729	L 0.000	Z	-.147	W 0.883	Z	-6.721	L 0.000
WINN_1998 - LOS_1998	Z	-6.611	W 0.000	Z	-6.736	L 0.000	Z	-6.736	L 0.000
WINN_1999 - LOS_1999	Z	-6.441	L 0.000	Z	-3.946	L 0.000	Z	-1.943	L 0.052
WINN_2000 - LOS_2000	Z	-5.412	L 0.000	Z	-6.736	L 0.000	Z	-4.542	L 0.000
WINN_2001 - LOS_2001	Z	-6.736	W 0.000	Z	-3.460	W 0.001	T	14.547	W 0.000
WINN_2002 - LOS_2002	Z	-2.150	W 0.032	Z	-6.736	L 0.000	T	20.016	W 0.000
WINN_2003 - LOS_2003	Z	-5.610	L 0.000	Z	-6.279	L 0.000	Z	-5.160	L 0.000
WINN_2004 - LOS_2004	Z	-2.289	W 0.022	Z	-1.671	L 0.095	Z	-6.721	L 0.000
WINN_2005 - LOS_2005	Z	-6.044	L 0.000	Z	-6.287	L 0.000	Z	-6.383	L 0.000
WINN_2006 - LOS_2006	Z	-6.596	L 0.000	Z	-6.736	L 0.000	Z	-6.736	L 0.000
WINN_2007 - LOS_2007	Z	-6.633	W 0.000	Z	-6.559	W 0.000	Z	-6.736	L 0.000
WINN_2008 - LOS_2008	Z	-6.706	L 0.000	Z	-6.692	L 0.000	Z	-6.699	L 0.000

Source: Own elaboration with SPSS 18.0

The results of hypothesis tests show that through the new optimization method proposed by the authors, it is possible to enhance the effects of overreaction in the performance of portfolios in each year, more than the traditional optimization method or the simple definition of equal weights for stocks of the winners and losers portfolios. Having seen that, following the results of the regressions with panel data.

Results of regressions with panel data

For the analysis proposed in this paper, individual regressions were made for each proposed method of analysis. Each regression with panel data was based on the differential return (difference between winning and losing portfolios) average accumulated in each review period, totaling 840 observations, obtained by multiplying the fourteen "portfolios" differential return under analysis by 60 months of analysis of the cumulative returns. This differential return (RI_DIF) was considered a dependent variable (Table 2), because it is expected to estimate its value, and as independent variables were considered the difference between the cumulative return of the market (Ibovespa) and the risk-free asset and the differential return of the formation period (called RFORM_DIF).

Table 2 – Results of Regressions (Dependent Variable: RI_DIF)

VARIABLES	BY THE AVERAGE				TRADITIONAL OPTIMIZATION				NEW OPTIMIZATION			
	Coef	SE	T-Stat	Prob	Coef	SE	T-Stat	Prob	Coef	SE	T-Stat	Prob
Constant [C]	-0,3150	0,0335	-9,4152	0,0000	-0,6453	0,0538	-11,9944	0,0000	0,1541	0,1014	1,5203	0,1288
Rm - Rf [IBOV - CDI]	0,1969	0,0519	3,7950	0,0002	-0,3418	0,0679	-5,0342	0,0000	0,0787	0,0663	1,1874	0,2354
RFORM_DIF	0,0761	0,0128	5,9648	0,0000	0,0928	0,0225	4,1243	0,0000	-0,3494	0,0647	-5,4026	0,0000
Significance of Reg.	Estat. F	19,58	Prob. F	0,0000	Estat. F	29,52	Prob. F	0,0000	Estat. F	17,39	Prob. F	0,0000

Source: Own elaboration with *Eviews 5.0*

Table 2 shows that the F statistic regression was significant for all three regressions calculated. In the portfolio where returns were calculated by the average all variables were significant, constant coefficient was negative and the coefficients of market premium and return on formation were positive. This indicates that how greater the growth of the market return and risk free rate, greater is the differential return (RI_DIF). As expected a negative differential return, a better market performance implies a disadvantage of overreaction effect.

Consider the analysis of differential return rate in the formation period (RFORM_DIF). As we are always analyzing the winning stocks less the losers (differences), the differential return on formation period will always be positive. The positive coefficient indicates that how greater is this difference in formation, greater will be the result of differential return sixty months later, demonstrating that a higher intensity of the winning or losing in the formation period can also be advantageous for winner stocks sixty months later.

When the portfolios are optimized, all the coefficients remain significant, and their signals too, except the $R_m - R_f$, which happens to be negative. In this case, how better is the performance of the market, lower is the differential return, demonstrating the occurrence of overreaction effect. A possible explanation for this coefficient is due to the fact that were given higher priority to stocks with greater return and maintaining the same level of risk, and these generated during periods of analysis a more intense overreaction effect.

Finally, in the analysis realized by optimization with the new proposed method, the coefficient related to the CAPM model and constant were not significant, but the coefficient of return differential on formation remained significant. Specifically return on the differential coefficient in the formation period, this was higher than in other situations and negative, strengthening the overreaction effect. So, how greater is the difference in the formation period, more intense is the result of the contrary strategy.

Thus, based on the results of hypothesis testing and the regressions with panel data, we do not reject the hypothesis of overreaction effect in Brazil in training period of 1995 to 2008 and analysis in sixty months later (going from 1996 to 2013) and also it does not reject the hypothesis that the effect of the opposite strategy is enhanced by optimizing portfolios as Markowitz (1952) and, even more, the new optimization method, seeking the lowest return in the training period and keeping the same risk level.

CONCLUSIONS

Based on the assumption of maintaining return results of stocks in the short term and trend reversal in the long run from evidence identified in the USA market and considering the economic stability of Brazil to analyze investment strategies, the present study consisted of a check of overreaction effect in the Brazilian capital market in the long term (1995-2013) and seeking to test the hypothesis that optimization of the portfolios analyzed potentiates the effects of contrarian strategy.

Considering that the overreaction indicates that losing stocks in the formative years tend to revert your returns within five years later, then the Portfolio Selection model proposed by Harry Markowitz (1952) could be used otherwise to consider, in the period formation, stocks with less risk and also the lower return in order to optimize the strategy on contrarian investment. This was the new optimization method proposed.

From the descriptive analysis of the winners and losers in the portfolio formation period (annually, 1995-2008) and analysis in the five subsequent years (1996-2013), reversals were identified five years after the formation. On average, losing gained 18% more than the winning five years later. When performed optimization of the 28 portfolios as proposed by Markowitz (1952), this reversal is enhanced, and the losers portfolios come to have 62% more than the winners.

After that, when realized again the optimization of the 28 portfolios by method proposed by the authors (wich minimize the return on formation and maintain the risk), was found that the losers gained about 50% more than the winners in the same period. The hypothesis tests conducted every year by the three different methods of analysis allowed to verify that the portfolios with returns calculated by the average of stcoks, in just seven of the fourteen years the overreaction effect was significant. When optimized by the traditional method, the same effect

is statistically significant in eight years. Finally, as optimized by the method proposed by the authors, the differences between winning and losing cards were significant in nine years at 5% and 10 years at 10% level of significance, indicating that the new method actually enhances the effects of contrarian strategy.

Regressions with data panel corroborated with hypothesis testing made. Despite the CAPM's insignificance in the proposed new optimization method, the differential return rate in the formation period presented significant and negative, indicating that how higher is the return of the winners and lowest of the losers in the formation period, over these results reverse and bring the overreaction five years later.

In conclusion, based on the results of hypothesis testing and the regressions with panel data, do not reject the hypothesis of overreaction effect in Brazil in 1995 training period to 2008 and analysis in sixty months later (going from 1996 to 2013) and also it does not reject the hypothesis that the overreaction effect is enhanced by optimizing portfolios as Markowitz (1952) and, even more, as the new optimization method, seeking the lowest return in the training period and keeping the same risk level.

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INCLUDING GENETIC VARIATIONS IN PATIENTS' CLINICAL TRIAL SELECTION PROCESS

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ABSTRACT

As genetic testing becomes more pervasive, it is possible to consider a patient's genetic information in the clinical trial selection process. Certain genetic variations can affect a patient's reaction and response to specific drugs. The field of pharmacogenomics and personalized medicine seeks to use genetic information to customize drug therapy for patients. There are several databases that gather information from drug trial literature and original research and publish information that links patients' genetic variation at a locus and their response to a particular drug at a specified dosage. PharmGKB is one such database that is available as linked open data. Incorporating patients' genetic information into clinical trial searches could reduce the risk of adverse drug reactions in these patients. Our goal is to include this information into a clinical trials decision support system, which is supported by linked open data.

Keywords: Medical informatics, semantic web, clinical trials, genetic variations

BACKGROUND RESEARCH AND MOTIVATION

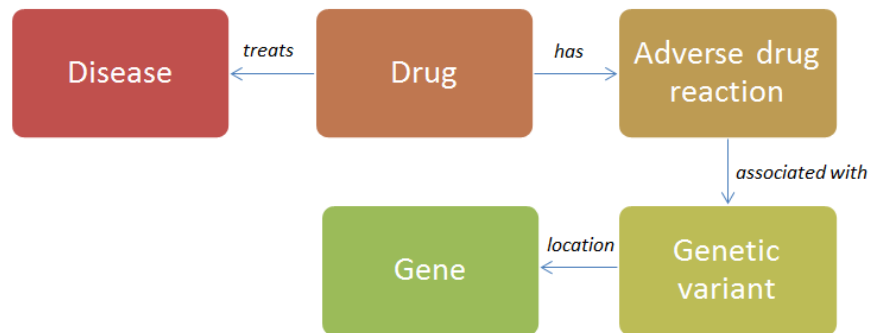
Given the rapidly developing fields of sequencing technologies and pharmacogenomics, there is potential to individualize drug therapy, or to perform genetic testing before prescribing a drug (Sim et al, 2011b). Adverse drug reactions have been an ongoing concern, with some patients experiencing severe consequences. (Davies et al, 2009; Davies et al, 2010; Moore et al, 2007) Pharmacogenomics will also affect the design of clinical trials, such as oncology trials, to take molecular factors into consideration. (Qin and Kohli, 2013) Knowing how inter-individual DNA sequence variations affect drug responses can help set the appropriate dosage for a patient to get the maximum benefit and minimum adverse effect (Zhou et al, 2008). The drug Warfarin is a commonly referred to example where, as research improves, genetic variations could help in personalizing a patient's therapy. (Li et al, 2009) This area is also playing a role in individualized cancer therapy. (Weng et al, 2013) It has also been proposed that the efficacy of drugs can be improved if genome-wide association studies and pharmacogenomics analysis is included in drug development and treatment programs. (Harper and Topol, 2012)

From our perspective, we are interested in incorporating the links between drugs, adverse reactions, and genetic variants into a clinical trial decision support system. The system is built using linked open data and semantic web technologies. There has been an effort to make life science and drug data available as linked open data which can be queried in a semantically meaningful way – databases have been made accessible through Bio2RDF and Linking Open Drug Data (LODD) initiatives. The PharmGKB database is a pharmacogenetic resource that we will utilize in the clinical trial decision support system.

PHARMACOGENOMICS DATABASE

One of the main databases that contains information on the relationship between genetic variation and drug response is the Pharmacogenomics Knowledgebase (PharmGKB). (Whirl-Carrillo et al, 2012) This knowledgebase is built by collecting pharmacogenetics and pharmacogenomics literature, which is analyzed in order to generate gene variant annotations, drug-centered pathways, and information on a set of genes that are found to be critically important in drug response – these genes are denoted as “VIP” (very important pharmacogene). Articles are both manually curated and analyzed with natural language processing (NLP) techniques to establish relationships between genes, drugs, and diseases. (Whirl-Carrillo et al, 2012) Genetic variants, either single nucleotide polymorphisms (SNPs), insertion or deletions, copy number variations (CNVs), or haplotypes, are associated with a drug phenotype (response to drug). The clinical annotations are assigned a “level of evidence”, ranging from preliminary to high, as a measure of confidence in the association. The evidence provided includes relevant studies, along with details such as study size, population characteristics, p-value, etc. PharmGKB employs RxNorm for listing drugs as well as Medical Subject Headings (MeSH), the Unified Medical Language System (UMLS), and other vocabularies to represent diseases. There are several other informative pharmacogenomics databases (Sim et al, 2011a); however, we focus on PharmGKB since it is available as linked open data through the Bio2RDF project.

Figure 1: Relationships that can be extracted from PharmGKB



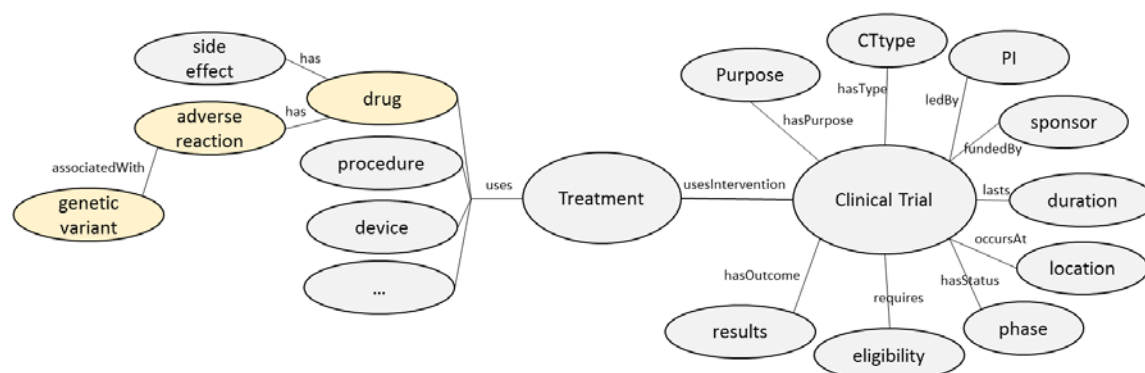
CLINICAL TRIAL SELECTION FRAMEWORK

As high-throughput sequencing applications become more prevalent, genetic screening may be required for certain drugs, or for deciding the dosage of a prescribed drug. This would be especially critical for cases where the drug is known to have serious adverse effects on patients with a specific genetic variant. In the case of clinical trials, there are eligibility criteria that detail inclusion and exclusion criteria that determine whether potential patients are eligible to participate in a trial. In the future, if one could consider a drug that has a severe adverse reaction for a sub-group of patients with a particular genetic variation, one could see genetic conditions as part of the eligibility criteria. This idea of having genetic criteria is similar to how some clinical trials for breast cancer are designed to serve patients with a BRCA1 or BRCA2 mutation.

From the perspective of our application, we consider genetic information within the context of a clinical trial decision support system developed by MacKellar et al (2014). Clinical trial data, i.e. as obtained from ClinicalTrials.gov, contains information on the purpose, type, sponsor, duration, location, phase, intervention, among other information. The intervention includes the treatment information, such as a procedure or a drug and dosing information. If a drug is included in the therapy, a patient may want to consider the commonly reported side effects for the drug and whether the drug has potentially harmful interactions with other medications the patient may be taking. Also, given a patient's genetic information, we will want to find out if there are any known/documented potentially harmful drug responses (adverse drug reactions) the patient may be at a higher risk of experiencing. The clinical trial decision support system specified by MacKellar et al uses linked open data, semantic relationships and queries to gather and integrate information on the clinical trials and drug side effects. LinkedCT (Hassanzadeh et al, 2009), Linked Clinical Trials, is a semantic web resource that contains

data from ClinicalTrials.gov in RDF format and contains semantic links to other data sources. SIDER (Kuhn et al, 2010), side effect resource, aggregates side effect information for drugs from various sources including package inserts. SIDER is also available as linked open data. Here, we are presenting the integration of PharmGKB, as a linked open pharmacogenomics data source, into the clinical trial selection system. A simple knowledge representation that pulls together clinical trial, treatment, drug, adverse reaction and genetic variant information is depicted in Figure 2. The backbone to this framework relies on semantic relationships between these entities in their respective data sources.

Figure 2: Knowledge representation of linked data for clinical trials with side effect, adverse reaction, and genetic variant information



GENETIC VARIANTS

The UMLS (Unified Medical Language System) is commonly used in medical and healthcare informatics applications in order to map a term or concept in one medical vocabulary to another. The UMLS also contains a semantic network of types; concepts in the medical vocabularies are mapped to types in the semantic network. This is informative, as the network contains both hierarchical and other kinds of relationships. The concept unique identifiers (CUIs) are commonly used to label terms, as are identifiers from medical vocabularies such as NCI or MeSH.

To briefly state, the types of genetic variants included in PharmGKB include: single nucleotide polymorphisms, copy number variations, insertion/deletion (indel) mutations, and haplotypes. Single nucleotide polymorphisms (SNPs) refer to a variation in a single nucleotide in a DNA sequence (either in coding or non-coding regions). Copy number variations (CNVs), also known as copy number polymorphisms, occur when a section of DNA is present a different number of times in individuals within a population. An indel is an insertion or deletion of nucleotides in a DNA sequence. A haplotype is a group of alleles (particular form of a gene) that tend to be inherited together. Figure 3 shows the concepts that represent the types of genetic variants in the UMLS Metathesaurus and how they fit into the UMLS semantic network.

There is also a Metathesaurus concept called “Genetic variant clinical significance” that could be used to represent all of these types of genetic variants. For simplicity, this concept is used in Figure 4, which shows the connections we are able to make with the data provided by PharmGKB.

DRUG, GENE, ADVERSE REACTION DATA

Table 1 contains a sampling of drug, disease, gene, and adverse reaction data extracted from PharmGKB. All of these examples contain genes that are considered significant in terms of their pharmacogenomic relevance. These examples are also supported with a high level of evidence from clinical studies. The drug is listed, along with the gene with genetic variant, and a sample adverse reaction – note that in PharmGKB there are multiple genetic variants and adverse reactions for each drug, but only one is included here as a sample. The diseases listed refer

to either the disease the drug treats or diseases that are a result of the adverse reaction(s). Many of the adverse reactions listed in PharmGKB are also relating specific genetic variants to suggested dosing of the drug.

Figure 3: Genetic variants within the context of UMLS

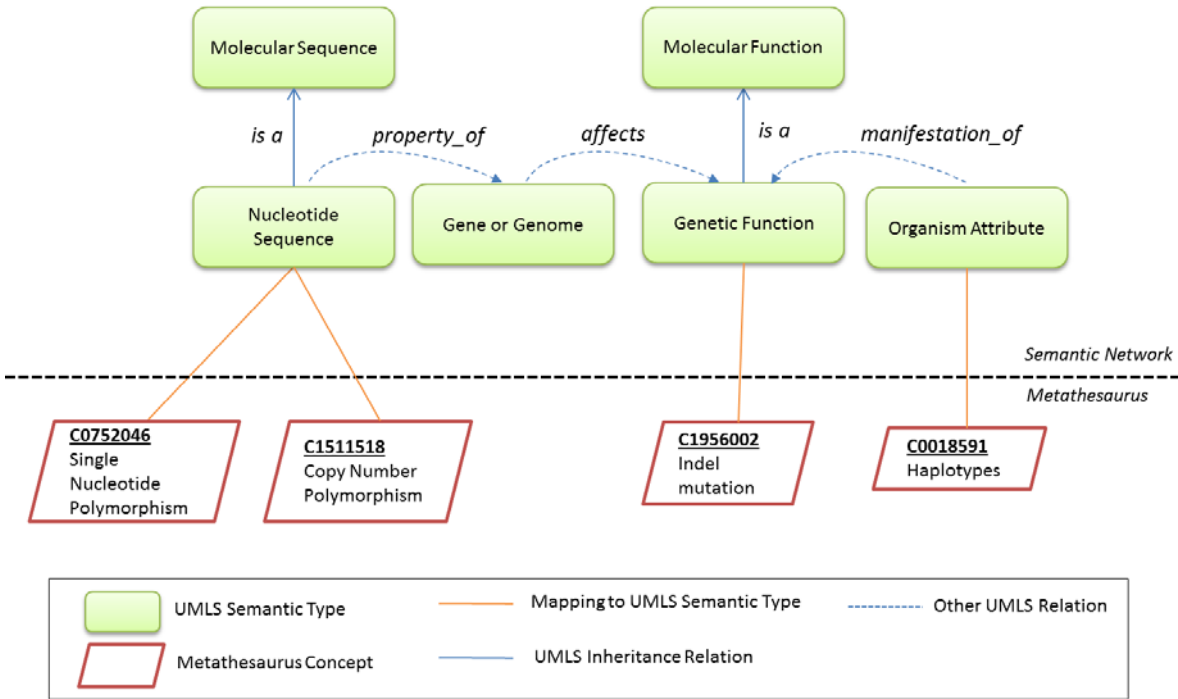


Figure 4: PharmGKB connections viewed from the Semantic Network

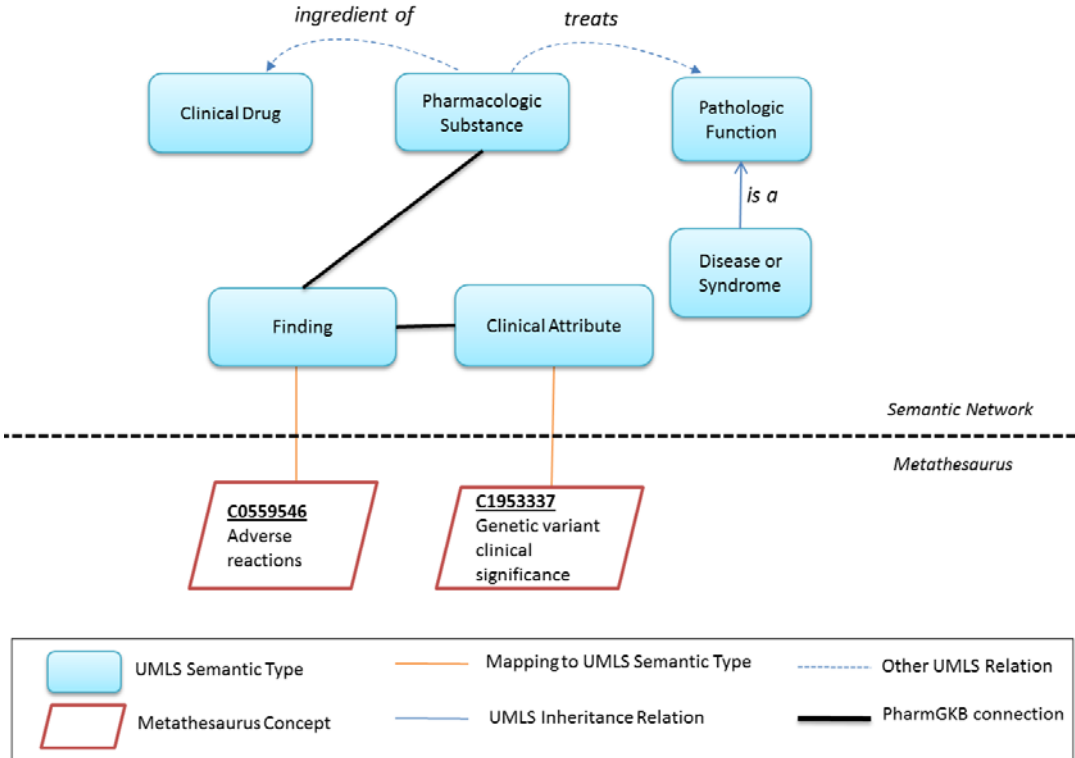


Table 1: Examples of drugs, related diseases, genes, and adverse reactions obtained from PharmGKB

Drug	Disease(s) mentioned in studies	Gene(s) with genetic variant	Sample adverse reaction
allopurinol	Arthritis, Gouty; Drug Hypersensitivity; Epidermal Necrolysis, Toxic; Hyperuricemia; Kidney Failure, Chronic; Stevens-Johnson Syndrome	HLA-B	Patients with one or two copies of the HLA-B*58:01 allele have an increased risk of Severe Cutaneous Adverse Reactions, such as Stevens-Johnson Syndrome and Toxic Epidermal Necrolysis, when treated with allopurinol as compared to patients with no HLA-B*58:01 alleles or negative for the HLA-B*58:01 test. Other genetic and clinical factors may also influence a patient's risk of allopurinol-induced adverse reactions.
Ribavirin	Hepatitis C	IFNL3, IFNL4	Patients with the CC genotype and Hepatitis C genotype 1 may have increased SVR (sustained virological response) when administered peg interferon alpha and ribavirin as compared to patients with the CT or TT genotype. Patients with the CC genotype may also have higher spontaneous clearance in acute HCV infections than patients with the CT or TT genotype. Other genetic and clinical factors may also influence a patient's response to peginterferon.
simvastatin	Muscular Diseases; Myopathy, Central Core	SLCO1B1	Patients with the CC genotype may have a higher risk of simvastatin-related myopathy as compared to patients with the CT or TT genotype. Other genetic and clinical factors may also influence a patient's risk for toxicity.
tramadol	Pain	CYP2D6	Patients with more than two copies of CYP2D6 fully functional alleles who are CYP2D6 ultrarapid metabolizers (i.e., a CYP2D6 activity score of >2.0) may have higher risk of toxicity/side effects (respiratory depression, cardiotoxicity or nausea) as compared to patients with *1/*1 genotype who are CYP2D6 normal/extensive metabolizers. Patients who are CYP2D6 ultrarapid metabolizers should reduce tramadol dose or choose another drug (e.g., acetaminophen, NSAID, morphine-not oxycodone or codeine) due to potential for toxicity and should be alert to adverse drug events. Other genetic and clinical factors may also influence a patient's response to tramadol.
Warfarin	Cardiovascular Diseases; Heart Diseases	CYP2C9	Patients with the AC genotype: 1) may require a decreased dose of warfarin as compared to patients with the AA genotype 2) may have an increased risk for adverse events as compared to patients with the AA genotype.

SUMMARY AND IMPLICATIONS

This work explores incorporating a patient's genetic variant information in the clinical trial selection process. We incorporate a pharmacogenomic database to link a drug used in a clinical trial to evidenced adverse reactions that are associated with the drug, as well as the specific gene and variant related to the adverse reaction. In the future, genetic testing will likely be included in decisions regarding patient drug therapy and dosing. From the perspective of the patient, caretaker, or physician, any information gathered that can enhance the chance for success and minimize risk is an advantage. A main focus of this project is also the application of medical informatics techniques and linked open data.

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EFFECTS OF AGGLOMERATION ECONOMIES ON THE PERFORMANCE OF CROATIAN MANUFACTURING FIRMS*

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ABSTRACT

This manuscript examines tendency of Croatian manufacturing firms to spatially allocate close to each other in order to benefit from the agglomeration economies. Agglomeration economies are type of external economies that are beneficial to firm because of the spatial proximity to other firms. Here presented econometric analysis is focused on investigating the impact of agglomeration economies on the performance of Croatian manufacturing firms. Our analysis showed that both localization and urbanization economies have a positive effect on the performance of Croatian manufacturing firms. In other words, presence of both related (i.e. firms in the same manufacturing division) and unrelated firms leads to firm's higher sales revenue.

Keywords: Agglomeration economies, performance of Croatian manufacturing firms, local and regional development, spatial concentration of industries

INTRODUCTION

This manuscript examines tendency of Croatian manufacturing firms to spatially allocate close to each other in order to benefit from the agglomeration economies. Agglomeration economies are type of external economies that are beneficial to firms because of the spatial proximity to other firms. Generally, two types of agglomeration economies are found in economic literature, namely localization economies and urbanization economies. The first type refers to spatial concentration of firms with similar activities (industrial districts, localized industrial clusters, etc.), whereas the second type refers to general economies of regional and urban concentration that include all firms and industries in a given location. Here presented econometric analysis is focused on investigating the impact of agglomeration economies on the performance of Croatian manufacturing firms. By performance, we mean sales revenue. Therefore, our analysis includes two main types of agglomeration economies: localization and urbanization economies.

The analysis of effects of the agglomeration economies on business performance of Croatian manufacturing firms is based on the data obtained from the Croatian financial agency (FINA). Dependent variable is sales revenue of manufacturing firms distributed in 24 on of NACE Rev. 2 division. The sample is highly representative since more than 9,000 observations are included. Each value of the dependent variable (observation) is paired with the location quotient which serves as independent variable. Location quotient is used to capture effects of the localization economies on firm's revenues. Urbanization economies are measured by the total number of firms from all branches of the economy.

It is expected that agglomeration economies (localization and urbanization) have positive effects on Croatian manufacturing firm performance.

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ABOUT AGGLOMERATION ECONOMIES

In its simplest form, agglomeration indicates the process of clustering of economic activity in the same place. Agglomeration usually favors the growth of external economies that are linked to the collective use of infrastructure, communication, amenities and other services (Gregory et al., 2009). The term agglomeration was first introduced to the location theory by Alfred Weber. Although his work mainly deals with the problem of firm location, his main interest was to explain the formation of industrial clusters (Fujita et al., 1999). The phenomenon of spatial agglomeration of industrial activity was first described by Marshall (1890). His work focuses on the benefits of external economies that are caused by the geographical proximity of the economic agents. The concept of “industrial atmosphere” describes business and social environment conducive for achieving new ideas, technical changes, innovation, etc. Other characteristics include concentration of many small factories specialized in different stages of the same manufacturing process; expansion of a pooled market for workers with specialized skills; and creation of ancillary industries and specialized suppliers. Marshall claimed that, at least for certain types of production, there are two effective industrial systems: a large vertically integrated manufacturing system and an industrial district. The latter is characterized by SME dominated local industrial employment that is higher than the national level (Brenner, 2004, p. 10). Theorists of New Economic Geography use the concept of agglomeration economies and their main theorist, Paul Krugman (1991), relying on Marshall’s concept of externalities, identifies three main causes of agglomeration economies:

1. The geographical concentration of firms creates a pooled labor market for workers with specialized skills;
2. The concentration of firms creates specialized suppliers and diversified intermediate and final goods that are specific to only certain industries;
3. The spillover of knowledge and technology between firms.

Modern economic theory asserts the importance of the agglomeration economies, not only as a channel for increasing aggregate productivity, output or welfare, but also as a mechanism to fight economic inequality (Overman et al. 2009). Rosenthal and Strange (2003) made contributions to the empirical literature on agglomeration economies. Their research indicates that localization economies attenuate rapidly and that industrial organization affects the benefits of agglomeration. Fujita and Thisse (2002) point out that agglomeration is the result of a process of circular causation in the core-periphery model. Puga (2010) gives brief list of mechanisms that underlie agglomeration economies with theoretical argument and empirical evidence supporting it. These include sharing facilities, suppliers, sharing the gains from individual specialization, a labor pool, better matching and learning. Jordi et al. (2012) analyze why firms in some industries locate in specialized economic environments (localization economies) while those in other industries prefer large city locations (urbanization economies).

Although the evidence for agglomeration is overwhelming, it is difficult to identify its various causes and distinguish them from one another. Theoretically, agglomeration economies can occur in two basic forms: the economies of localization and urbanization. The first type refers to specific economies that can be attributed to the spatial concentration of firms with similar activities. Science parks are an example of agglomeration of similar firms on one location because they mainly consist of high-tech companies associated with scientific institutions which are the primary driving force behind innovation. The most famous example of the scientific park which brings together some of the most successful companies in the world (Apple Inc., Google, Intel, H&P, etc.) is Silicon Valley in California (USA). Ellison and Glaeser (1997, 1999) discuss the prevalence of Silicon Valley-style localization of manufacturing industries in the United States. Their empirical results suggest that almost all industries are somewhat localized. Also, industries’ locations are affected by wide range of natural advantages. About 20 percent of observed geographical concentration can be explained by a small set of advantages. Shefer (1973), Nakamura (1985), Henderson (1986, 2003a), Moomaw (1988), Henderson, Kuncoro and Turner (1995) and others indicate the importance of localization economies. Unlike localization, urbanization economies result from the agglomeration of firms regardless of the sector they belong to. Pred (1966, 1977) was among first to test urbanization economies empirically and Henderson (2003b) investigates optimal degree of urban concentration and concludes that productivity growth is not strongly affected by urbanization *per se*. Urbanization and localization economies are largely shaped by the same mechanism. The main difference comes from the fact that urbanization economies are connected with the benefits of the sharing

basic infrastructure, resources and institutions that are considered public goods, while localization economies traditionally imply an increase in efficiency of economic transaction due to the geographical proximity of the companies.

MODEL SPECIFICATION

The analysis of agglomeration economies effects on business performance of Croatian manufacturing firms is based on the data obtained from the Croatian financial agency (FINA). The dependent variable refers to the sales revenue of manufacturing firms distributed in 24 NACE Rev. 2 divisions in 2008¹. A sample is highly representative since more than 9,000 observations are included in this analysis. Each observation of dependent variable is paired with the location quotient which serves as an independent variable. Location quotient is used to capture effects of the localization economies on firm's revenues. Localization economies produce benefits for similar or linked firms located in a single place. High level of firm concentration was noticed at the beginning of industrialization and Alfred Marshall was among first to analyze this phenomenon. Therefore, the presence of location economies is measured by the location quotient which is calculated on the basis of number of firms in the same industry division. This expression is used (Malmberg et al., 2000, p. 311):

$$LQ = \left(\frac{L_x / T_x}{L / T} \right) \quad (1)$$

Where L_x is the number of local firms (in the same county) that are operating in the same specific manufacturing industry; L is the number of local firms (in the same county) from all manufacturing branches; T_x is number of all firms that are operating in the same specific manufacturing industry; T is the number of all firms from all manufacturing branches. Beside number of firms, we have calculated a location quotient based on employment in order to check our results.

Similarity of manufacturing firms is based on the assumption of belonging to the same NACE Rev. 2 division. Relationship between firms in the same branch is horizontal, i.e. they produce similar products and compete among themselves. Furthermore, the usage of location formula requires correct definition of local firms. In this case, local firms refer to the firms operating in the same Croatian county² (NUTS 3 region). Hence, calculation of location quotient for every NACE Rev. 2 manufacturing division is based on the number of local firms (i.e. in the same county). In addition to the examination of the effects of localization economies on firm performance, this paper seeks to determine whether the presence of firms from other sectors of the economy affects performance of the specific manufacturing firm. In this case, urbanization economies are measured by the total number of local firms from all branches of the economy. To avoid double counting, firms belonging to the specific industry are excluded from counting as they are already used for calculating the location quotient. The same was done in the case of number of employees. Aside from these variables of interest (manufacturing firm's revenue, location quotient and the measurement of urbanization), additional control variables are included – the number of employees and tangible assets. The first variable serves as an approximation of the firm size. The latter includes items such as land, buildings, plant machinery and equipment. It is expected that with the increasing size of the firm and its tangible assets, sales revenues also increase.

Finally, regression model is constructed that will examine effects of agglomeration economies (localization and urbanization) on manufacturing firm performance (measured by sales revenue) in Croatia:

$$Y_j = \alpha + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \beta_4 X_{i4} + u_i \quad (2)$$

Where:

Y_j = SALREV	Sales revenue of individual manufacturing firm “i” belonging to one of 24 Manufacturing sectors (C10-C33) by NACE Rev. 2 ³ .
X_{i1} = LQ	Location quotient calculated on the basis of number of firms (or employment) belonging to the same Manufacturing sector (C10-C33).
X_{i2} = UR	Measurement of urbanization economies for firm “i” that includes all firms (or number of employees) operating in the same county as firm “i” minus the firms (or employees) from the same Manufacturing sector (C10-C33).
X_{i3} = EMPL	Number of employees in the firm “i”.
X_{i4} = TANG	Tangible assets of the firm “i”.

u_i Error term.

Based on the specifications of the regression model (2), the regression equation is estimated in the log linear form, where “ln” denotes the natural logarithm as follows:

$$\ln(\text{SALREV})_i = B_0 + B_1 \ln(\text{LQ})_i + B_2 \ln(\text{UR})_i + B_3 \ln(\text{EMPL})_i + B_4 (\text{TANG})_i + u_i \quad (3)$$

According to economic theory, agglomeration economies should have a positive impact on firm's performance, i.e. their sales revenue. While localization economies include effects of the concentration of firms in the same industry, urbanization economies are related to the concentration of firms regardless of the sector they belong to. It is expected that both variables have positive and significant impact on firm's performance (i.e. sales revenue).

RESULTS OF THE ECONOMETRIC ANALYSIS

Cross-section analysis of the effects of agglomeration economies (localization and urbanization) on the Croatian manufacturing firm's performance is conducted on a sample of 9,882 firms⁴. The method of least squares (OLS) was used and the hypothesis of heteroskedasticity of parameters was rejected as the White's test was performed. The problem of multicollinearity was not a problem since the variables of interest (LQ – effects of localization economies and UR – effects of urbanization economies) are not correlated with other independent variables. Software E-views 7 was used to calculate estimated parameters, and the results of the econometric analysis are presented in Table 1 (Model A with LQ and UR calculated on basis of number of firms) and Table 2 (Model B with LQ and UR calculated on the basis of number of employees) with calculated estimates of parameters (bold) and standard errors (in parentheses).

Table 1: Results of regression analysis, parameter estimates of agglomeration effects on manufacturing firms' performance using OLS method with LQ and UR calculated on the basis of number of firms

	Model A	
Intercept	β	8.947
	σ	(0.116)
	p-value	0.000
$\ln(\text{LQ})_i$	β	0.052
	σ	(0.025)
	p-value	0.036
$\ln(\text{UR})_i$	β	0.179
	σ	(0.012)
	p-value	0.000
$\ln(\text{EMPL})_i$	β	0.846
	σ	(0.012)
	p-value	0.000
$\ln(\text{TANG})_i$	β	0.210
	σ	(0.008)
	p-value	0.000
N		7,822
F-statistics		5,864.628
Prob (F-statistics)		0.000
Adj. R ²		0.750

Source: author's calculations

Table 2: Results of regression analysis, parameter estimates of agglomeration effects on manufacturing firms' performance using OLS method with LQ and UR calculated on the basis of number of employees

	Model B	
Intercept	β	8.551
	σ	(0.149)

	p-value	0.000
ln(LQ) _i	β	0.027
	σ	(0.013)
	p-value	0.042
ln(UR) _i	β	0.165
	σ	(0.012)
	p-value	0.000
ln(EMPL) _i	β	0.841
	σ	(0.012)
	p-value	0.000
ln(TANG) _i	β	0.209
	σ	(0.008)
	p-value	0.000
N		7,817
F-statistics		5,818.273
Prob (F-statistics)		0.000
Adj. R ²		0.750

Source: author's calculations

For both models the results show that all estimated parameters of independent variables are statistically significant (at the significance level of less than 5%) with the expected positive signs. Control variables (EMPL – number of firm's employees and TANG – firm's tangible assets like property, plant and equipment) have positive effects on firm's sales revenue. In other words, higher employment and larger tangible assets are associated with higher sales revenue. Furthermore, analysis has shown that the localization economies affect firm's performance (i.e. its sales revenue). The larger number of local firms (operating in the in the same county) from the same manufacturing sector (belonging to the same NACE Rev. 2 division) the larger are firm's sales revenue. The localization economies parameter is statistically significant in both models but its effect on manufacturing firm's sales revenue is weak – an increase of a location quotient by 1% leads to the 0.052% increase in firm's revenue. Another variable of interest, urbanization economies also affects manufacturing firm's performance. That is, the larger number of local firms (operating in the in the same county) from different manufacturing sectors (belonging to the different NACE Rev. 2 division) the larger are firm's sales revenue. The urbanization economies parameter is statistically also significant in both models but its effect on manufacturing firm's sales revenue is stronger than in the case of localization economies – an increase of the measurement of urbanization by 1% leads to the 0.180% increase in firm's revenue. An important feature of the models is a satisfactory level of explained variance. In the cross-section analysis of very different firms, the value of adjusted R² of about 0.75 indicates that the model explains differences in firms' performance very well.

CONCLUSION

The aim of this paper was to determine whether Croatian manufacturing firms follow a pattern of geographical concentration and whether they benefit from the agglomeration economies. There are two types of agglomeration economies, namely localization and urbanization economies. The former one refers to the special case of economies related to concentration of firms with similar or related activities. We hypothesized that localization economies positively affect the performance (i.e. sales revenue) of Croatian manufacturing firms. On the other hand, urbanization economies are related to general economies of regional and urban concentration that are beneficial to all firms and industries in the given location. Therefore, we also hypothesized that urbanization economies also positively affect the performance of Croatian manufacturing firms. In order to test these two hypotheses, multiple regression models were constructed based on the data obtained from the Croatian financial agency (FINA). In order to avoid the effects of the global financial crisis we analyzed the data from 2008 (i.e. the last year before the global financial crisis). The analyzed variables were the location quotient (for assessing the localization economies) and the measurement of urbanization economies. Both variables were calculated on the basis of number of firms and employees. Also, two control variables were included – number of employees and the tangible assets (land, property and equipment). These are not related to the agglomeration economies but are likely to affect firm's performance (sales revenue). Results of our analysis show that both localization and

urbanization economies have a positive effect on the performance of Croatian manufacturing firms. In other words, presence of both related (i.e. firms in the same manufacturing division) and unrelated firms leads to firm's higher sales revenue.

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Endnotes

¹ 2008 was chosen as the last year of positive economic growth and just before financial crisis struck in Croatia.

² Croatia is divided into 20 counties and the capital city of Zagreb which has status of both a county and a city.

³ NACE is the acronym used to designate the various statistical classifications of economic activities developed since 1970 in the European Union. NACE provides the framework for collecting and presenting a large range of statistical data according to economic activity in the fields of economic statistics (e.g. production, employment, national accounts) and in other statistical domains (Statistical classification of economic activities in the European Community, 2008).

⁴ In the case of the regression model with calculated values of LQ and UR based on number of firms (Model A), there are 7,822 included observations, while in the case of LQ and UR calculated on the basis of number of employees (Model B) there are 7,817 observations.

BRANDING OF SOUTHERN AFRICAN POLITICS: THE CASE OF THE DEMOCRATIC PROGRESSIVE PARTY OF MALAWI AND THE AFRICAN NATIONAL CONGRESS OF SOUTH AFRICA

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ABSTRACT

The notion that political organisations can be classified as brands seems to be a novel idea which has not received universal acceptance. Despite the lack of acceptance, several authors in management and marketing studies do recognise political organisations (parties) as brands as they are aligned to the definition of a brand offered by the American Marketing Association (AMA, 1988). Malawi, just like in its regional neighbour, South Africa, embraced democratic rule in 1994. The proliferation of parties created tension and competition among political players. In a crowded political marketplace where there is convergence of political ideologies, it is very difficult for voters to recognise the parties or to be aware of what they stand for. Therefore branding can play a strategic role in distinguishing the competing parties and position one party as better than the others in the minds of the voters as customers. An exploratory study of the concept of branding amongst political parties in Malawi and South Africa was conducted, drawing on data from primary as well as secondary sources. This involved use of semi-structured interviews with politicians and media managers; focus groups; and content analysis of media sources. The conclusion of the study attests to the evidence that political parties in Malawi and South Africa do look at themselves as brands and the production of branded products was to create top of mind awareness, to create a distinctive positioning in the mind of the customer (mind share). Consequently, the brand will build an intangible value in the form of customer good will, trust and loyalty.

Keywords: Branding, brand image, political organisation, political marketing, Southern Africa

INTRODUCTION

Branding has become engrained into all levels of business from strategy to tactical levels. Doyle and Stern (2006) argue that in a traditional marketing sense, branding has taken centre stage in marketing. Understanding how consumers experience brands and, in turn, how to provide appealing brand experience for them, is critical for differentiating their offering in a marketplace (Schmitt, 2011).

Kotler, Armstrong, Saunders and Wong (2001) define a brand as a “name, term, sign, symbol, design, or a combination of these, which is used to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors” (American Marketing Association, 1988). However de Chernatony and Dall’Olmo Riley (1998) observe that a brand is a multidimensional construct, involving the blending of functional and emotional values to match consumers’ performance and psychological needs. White and de Chernatony (2002) therefore argue that one of the goals of branding is to make a brand unique on dimensions that are both relevant and welcomed by consumers.

White and de Chernatony (2002) observe that success in an overcrowded market will depend on effective brand differentiation, based on their identification, internalisation, and communication of unique brand values which are both pertinent to and desired by consumers. Powerful brands communicate their values through every point of contact they have with consumers (Cleaver, 1999). According to Tustin (2007), branding allows a company to differentiate itself from competition products, services and features, and in the process to bond with customers to create loyalty.

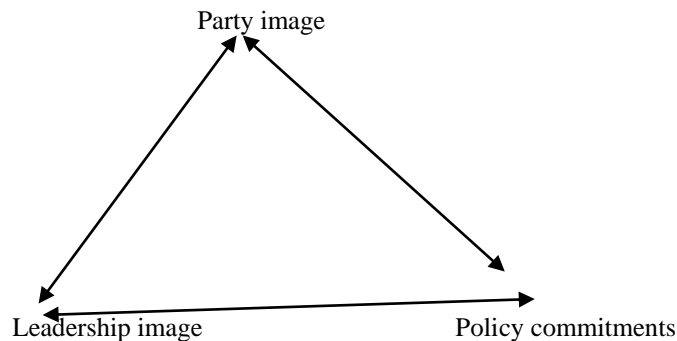
More specifically, brand image denotes ‘customers’ perceptions as reflected by the associations in their minds when they think about the brand or company”. According to Keller (2003), brand image is created by

- (i) Marketing programmes that link strong, favourable and unique associations to the brand in the memory and
- (ii) Direct experience with the brand’s identification with a certain company or organisation/ entity.

Political Branding: Are political parties brands?

Since brands have previously been defined as a “names, terms, signs, symbols, designs, or a combination of these”, Lock and Harris (1996) argue that at the simplest level, the brand is the party name. The name becomes attached as a brand to a wide variety of different “products” beyond the national party or party leader. Wring (2005:4) observes that a political product comprises “leader image, party image and policy commitments (a mind-set of voter centeredness)”.

Figure 1.0 Showing components of a political product.



White and de Chernatony (2002) observe that political parties emerge as a response to social developments, when groups of people feel they have an approach to social questions around which they wish to gather support, or which they seek to defend and promote in the face of opposition. They further observe that political parties acquire and use names and symbols, to strengthen their own positions to rally their supporters, to garner further support, and perhaps to intimidate their opponents. A political party, despite the difficulty of defining the market place for its brand, can consider itself as a brand, to be developed to offer functional and emotional values to the electorate as part of its appeal.

White and de Chernatony (2002) explain that until recently, political parties have used marketing to manage their affairs and further their interests. They observe that since World War II, political parties in North America and Europe, and very lately in emerging democracies of Southern Africa and countries of Central and Eastern Europe, have made steadily increasing use of these techniques. The key question worth asking is – can political parties be viewed as ‘brands’ and should they use branding?

Research literature provides evidence of political parties using branding as means of standing out amongst the competition as was observed by White and de Chernatony (2002) when they studied the modernisation of ‘New Labour’ as a brand’ between 1983 and 1994 after suffering three election defeats.

White and de Chernatony (2002) observe that the party had to modernise, reconnect with the electorate and overcome the electorate's doubts and fears about Labour as a party of government. They argued that this involved changing the party's constitution and founding principles, among them Clause IV, which committed the party to taking significant components of the economy into public ownership, a revised Clause IV allowed for the workings of the market economy. They further argued that the 'New Labour' had set out to represent functional values of openness, modernity, economic orthodoxy and redistributory social policy.

They also argued that the 'New Labour' brand wanted to re-assure the electorate it would not the country to the dark days of the 'winter of discontent', when the country was paralysed by union disputes in the winter of 1978-1979 when Labour Party was in government. According to The Economist (1997) Labour Party had set out to appeal to 'middle England', recognising that it would be a more successful party when it occupied the centre ground. Therefore the brand was an essential element in the modernisation of the party, a device to suggest and promise changes which were built through communication (Gould, 1998). White and de Chernatony (2002) however note that discrepancies between announcements and actual performance led to cynicism about government, New Labour and politics itself.

Branding and Competitive advantage

O'Cass and Voola (2010) observe that the traditional marketing literature has emphasised branding as fundamental to competitive advantage (e.g. Aaker, 1996; Hoeffler and Keller, 2002; Keller, 2001; and Perrier, 1997). They further observe that it differentiates a product from its rivals, and brand equity is a potential source of competitive advantage (Aaker, 1991; Gardner and Levy, 1955; Keller, 1993). They also observe that this is important because many would see the brand as a business's most valuable asset. Similarly, this is applicable in the political arena.

While others have argued that the application of marketing concepts to the political domain may be inappropriate because politics emphasises ideology over marketing issues (Lees-Marshment, 2001; Scammell, 1999), and that there are negative connotations associated with marketing (O'Shaughnessy, 2001; O'Cass and Voola, 2010), it can be argued that applying branding to political marketing is valid for two reasons. Firstly Reeves et al. (2006:419) argues that political marketing is, in general, a force for good within society, given that political marketing is concerned with the satisfaction of the electorate. They therefore argue that brand marketing offers an approach that if used effectively, can improve the political process. Secondly, notwithstanding the philosophical debate, evidence suggests that branding is big business (Jevons, 2005 cited in O'Cass and Voola, 2010) as evidenced by party slogans, campaign slogans, and party symbols which require financial resources to produce. Jevons (2005) however cautions that such a scenario would be considered to be counterproductive if it drives up the cost of doing politics.

While agreeing with Reeves et al. (2006) who highlight the value of branding in political marketing, it can be argued that branding theories can and should be applied to political marketing. Although some previous research has examined branding strategies of political leaders (Needham, 2005 and O'Shaughnessy, 2009), others, like Lock and Harris (1996) have sought to provide insights into the application of branding in the broader political marketing sphere. Importantly, the political and broader commercial marketing literature on branding, indicates that there is ample scope to apply branding strategies to political marketing.

Table 1.0 Political marketing and branding

Author(s)	Themes
Lock and Harris (1996)	Voters are unable to unbundle a political product offering. The majority choose on the basis of overall political package, concept or image.
Needham (2005)	Analyses the effectiveness of Blair and Clinton by applying six attributes of successful brands.
Reeves et al. (2006)	Highlights the value of branding in political marketing.
Scammell (2007)	Discusses the branding strategies relating to 'reconnecting the Prime Minister (Tony Blair)'.
O'Shaughnessy (2009)	Argues that Nazism functioned as a brand.

O'Cass and Voola, 2010), therefore, argue that political branding has the potential to differentiate one party's offering from its rivals and yield electoral performance. It is clear that parties must develop and sustain a strong brand because it is crucial to strategy, and it is a mechanism to build awareness among voters and differentiate it from other competing brands.

They state that brand symbolism relates to the development of key symbolism through party brand personality and arousal of emotions among constituents, citing, for example, David Cameron's (opposition leader at the time) branding of Gordon Brown as backward looking in the 2010 UK General Elections, by telling voters that 'voting Labour is to vote for more of the same'.

THEORETICAL FRAMEWORK

The notion of branding has evolved over decades, moving away from the thinking that names and graphic designs are the only facet to a brand's essence. While the origins of branding are not clear, Douglas Holt, a leading branding proponent, identified that brands have been elemental to markets since traders first marketed their goods as a guarantee to customers who lived beyond face-to-face contact (Holt, 2006). He proffers that American hawkers patented medicines as brands to promote, not only physical remedies, but also therapeutic remedies for social ailments.

This lack of clarity has caused there to be a broad range of branding theories (Holt, 2002, Holt, 2006) with overly grand ambitions, proposing universal, one-size-fits-all solutions. He therefore argues that such frameworks are excessively vague and unnecessarily misleading, because they smooth over the heterogeneous ways of how brands work and what that means to its users (Holt, 2006). However, Verma (2010) observes that in practitioner marketing circles, brands are created and managed by brand managers. Mariek Mooij (2010) highlights how branding is not rooted in theory but arguing that there are as many branding models and definitions as there are brand consultants. This he further argues clouds the study of brands.

Ries and Trout (2000) were instrumental in developing the thinking that lay the foundations for the modern meaning of branding, that the effect of a brand is to create a distinctive positioning in the minds of the consumer. Mooij (2010) adds by stating that as a consequence, a brand would look to 'build an intangible value in the form of customer goodwill, trust and loyalty and that emotional benefits and values are added to products to give them their distinct identity. This agrees with earlier work by Ries and Trout (1998) who had stated that brands only exist in the mind and that perception is more important than reality.

PROBLEM STATEMENT AND OBJECTIVES

From the foregoing discussion, we can formulate a specific question that addresses the key issue – To what extent did the political parties in Malawi and South Africa use branding in their marketing during the campaigns of 2009 and 2014. To investigate this, we undertook an exploratory study of campaign practices in Malawi and South Africa, drawing on data from primary as well as secondary sources. The objectives of the study were:

1. To find out the understanding of political party officials and media managers about branding?
2. To explore branding activities political parties got involved in and their significance.
3. To contribute to the discussion about the applicability of political marketing in emergent democracies in Africa.

METHODOLOGY

The study adopted a mixed methods approach. Sampling was done purposively to ensure that only participants who are knowledgeable and have participated in branding activities were targeted. The sample included politicians and media managers. While politicians were the actors, it was noted that they use various media platforms for their communication, hence the views of media practitioners would be significant.

The first part of the study involved conducting of semi structured interviews with 17 politicians (3 each from the six political parties represented in Malawian Parliament minus one) and 17 media managers of both public and private media houses. The parties that took part were the Alliance for Democracy (AFORD), Democratic Progressive Party (DPP), Malawi Congress Party (MCP), Malawi Forum for Unity and Development (MAFUNDE), Maravi People's Party (MPP) and the United Democratic Front Party (UDF). Three key officers from each of the six political parties were interviewed, namely the Directors of Campaigns, Directors of Research and Publicity Secretaries. Where the responsible officers were committed to other political engagements, they delegated the interviews to their deputies. Of the 18 eligible officials to be interviewed, 17 were interviewed while one was not available at any point in the study period to take part in the research. Interviews were done in sequence beginning with Campaign Directors, Research Directors and Publicity Secretaries in that order. The interviews were held between September 2011 and January, 2012.

The second phase involved the conducting interviews with 17 media managers and also four focus groups involving journalists who have reported on campaigning in Malawi. Lastly and because of logistical challenges, secondary data sources which mainly were online publications were analysed for evidence of branding in electoral campaigns in South Africa. Three online newspapers, namely the Sunday Times/The Times, The Star and News24 were analysed for information about the use of branding. Also, a number of online journals were analysed to trace evidence of branding in South African politics. Therefore, data used to gauge the use of branding in Malawi was collected primarily through semi structured interviews and focus group discussions. In addition, media reports which included online news sources on the use of branding and positioning strategy for South African parties were also consulted.

RESULTS

From interviews with politicians and media managers, there was evidence of lack of knowledge of the technical term by the practitioners as to what it meant. But when asked as to why they were doing it, there was consensus that they were doing it because they wanted to be known by voters; to stay in the minds of the voters and they were hoping that during voting, voters would remember the party and its leader based on the party symbols.

When asked about what sort of materials their parties used in the 2009 General Elections, this is what one campaign director had to say:

“We used a number of materials. In fact we hired two buses and painted them in our party colours. Our presidential candidate used one bus as a campaign fighting bus on the campaign trail. The other bus was used by his campaign staff. We also had small pick-ups which carried party supporters. We produced a party cloth, caps, badges, branded water bottles, cooking oil and sweets for distribution to prospective voters and our members. We also had posters for our presidential candidate and our aspiring members of parliament. As you can note this required huge sums of money to be spent on our campaign.” [CD2-DPP]

This was corroborated by media managers who agreed to comments made by politicians regarding branding initiatives that had taken place in the previous general elections. This is how one media manager summed it up:

“I have not seen a lot of campaigns but the 2009 General Elections campaigning brought in a lot of marketing by the ruling DPP. For example, flashy cars like Hummers, campaign fighting buses, billboards on some roundabouts, big screens in town centres and a lot of branded materials. I would say the DPP did a lot of advertising which took the other parties by surprise. In 1994, I do recall that MCP used drama and jingles by a celebrated artist Dunduzu Chisiza Junior but for sure there is more effort put into campaigns these recent years [Media Manager 5].”

Media managers reported about campaigns being sophisticated and costly as time passes. A lot of funds are spent on advertising in a bid to remain visible. Advertising has taken different forms including posters, bill boards, merchandise, on radio, television and in newspapers. These findings also came up during focus group discussions with journalists who were chosen for their knowledge of campaign issues.

In the case of South Africa, there was evidence through online media sources that parties used branding in South African political campaigning. Agiza Hlongwane (2009) notes about the African National Congress (ANC's) and Inkatha Freedom Party (IFP's) use of branding by among others, producing party t-shirts and advertising on taxis to get their messages across: even water bottles, bibs and CD pouches were branded in party colours by the ANC and IFP. Several platforms were chosen to communicate the brand and these include social networking website Facebook where Thabo Mbeki emerged as the most popular South African politician after Nelson Mandela. Also Hlongwane (2009:8) notes attempts by South African politicians to emulate Barack Obama by using technology such as SMSes, e-mail and social networks to drum up support" (p.8).

The study also found that customers want brands and products which make their lives more comfortable. This agrees with The Taylor Nelson Sofres Research Surveys (2007) which observed that there was an emerging market of knowledgeable middle and upper- middle class in South Africa who can afford products and services of choice who are even more influential with regards to endorsing political brands because they are looked up to, as opinion leaders.

DISCUSSION

The finding that political parties advertised their activities through print advertisements/ posters/ leaflets/ radio speeches and mass rallies, is characteristic of a pre-modern campaign and it agrees with the findings by Stromback (2007). He observes that political parties whose campaign is the pre-modern stage rely heavily on partisan media hence not surprising that these parties produced party uniform, t-shirts, caps, calendars, badges, posters, party miniature flags, and branded products, for example, water, cooking oil and sweets [as was the case with the Democratic Progressive Party (DPP)] for distribution to voters as a way of maintaining visibility and awareness. It was also noted that the DPP had campaign fighting buses and pick-up cars in party colours to maintain visibility.

Today, thousands of brands also borrow personality traits of individuals or groups to convey an image they want customers to form of them (Solomon, 2015). A brand personality is the set of traits people attribute to a product as if it were a person. Customers make an emotional connection with the brand based on these traits or values. They may perceive the brand as old-fashioned and traditional; or surprising and lively; serious and intelligent; or even glamorous and romantic (Solomon, 2015). It is therefore not surprising to note when the African National Congress wanted to come across as a serious (Bertelsen, 1996).and yet an efficient party which listens to the views of the voters (Lodge, 1995). A product that creates and communicates a distinctive brand personality stands out from its competition and inspires years of loyalty (Solomon, 2015).

Bertelsen (1996), writing about marketing political change for the 1994 South African elections, catalogued the attempts parties made to delineate themselves to the voters. She observed that the ANC had to avoid negativity and stick to key issues, to look like a serious party which had a plan to govern the country (Greenberg, 1994).

Johnston (2005) has observed that the opposition Democratic Alliance (DA) moved much more quickly, openly and aggressively than the ANC to develop the kind of focused media and campaign strategies characteristic of mediated politics. The party used focus groups to come up with messages of direct targeted advertising, and media strategies that combine rapid response rebuttal with self-conscious image building around its leadership, and it successfully remobilised whites and other minorities by appealing to them as consumers, rather than on the basis of any deeper or longer-lasting attachment.

Kim et al. (2002) argue that consumers (including political consumers or voters as they are often called) are looking out for brands (including political parties which are referred to as brands that carry cultural benefits or whose values fit their own. Luna and Gupta (2001:45) and Kotler and Armstrong (2008:162) support this view by saying that consumers who are individualist or collectivist will use brands (political parties inclusive) for self-expressive purposes, either to differentiate themselves from the referent others or to portray themselves as members of their reference groups. Success will not result in doing what worked in the past, because as the market changes, the business approach must also adjust accordingly. It is not always possible to predict what changes will occur in consumers and what values they will embrace at each election. That means the consumer's

behaviour is not just shaped by one specific culture but by other cultures as well since we live in a global village. There is therefore need to evaluate cultural influence at each election because it changes as observed by Zhang and Neelankavil, (1997).

Given this, there is little doubt about the use of branding by political parties in South Africa, though the performance of political parties during elections cannot solely or even mainly be attributed to branding. There are other underlying factors which would need to be explored. As noted by De Klerk (2010), disappointingly, voters continue to cast their votes overwhelmingly according to race and not according to political principle or their satisfaction with the performance of a government. This, he observes, will mean that the Democratic Alliance (DA), despite its energetic leader – Hellen Zille – will find it difficult to increase its support much above the 20% represented by the white, coloured and Asian minorities in South Africa.

CONCLUSION

Whilst literature has clearly identified the use of branding in Malawi and South Africa, there has been little discussion of branding of political parties in the emerging democracies of Africa, such as the Republic of South Africa and Malawi.

Through primary and secondary data sources, we have managed to show that political parties in Africa, in general, and South Africa and Malawi, in particular, have used branding to position themselves ahead of the competition in the minds of voters during campaigns for elections of 2009 and 2014. From the foregoing, it is clear that political parties in both countries have used branding although they might technically not been aware of such terminology or simply referred to it as advertising but such a practice is broadly consistent with what is currently obtainable in old and developed democracies.

The study therefore recommends as follows: a) that political parties in Malawi and South Africa should have a thorough understanding of branding as a concept and take deliberate steps to use it more effectively in their campaigns, if they want to portray themselves as political brands on the political market; b) political parties need to take a strategic view of their branding strategies as opposed to chance occurrences, as noted in some previous elections; and c) to address that, political parties need to hire brand managers or brand management teams who will ensure that political parties have a good share of the mind in their prospective voters.

Political markets in Malawi and South Africa have reached saturation points with stiff competition among political parties. Since parties can be commoditised as brands, use of branding which is the essence of marketing at the strategic level helps to differentiate parties from the competition.

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POSSIBILITIES FOR SUSTAINABLE GROWTH AND TECHNOLOGY MANAGEMENT: ARE THE AMERICAN-STYLE CAMPAIGNS THE MODEL FOR OTHER COUNTRIES? A CASE STUDY OF EMERGING DEMOCRACIES IN SOUTHERN AFRICA

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ABSTRACT

Malawi, just like in its regional neighbour, South Africa, embraced democratic rule in 1994. The birth of democracy in Malawi and South Africa saw a proliferation of political parties on the political market. The proliferation of parties created tension and competition among political players. The ensuing competition meant that parties were now ready and willing to try any technique in the campaign books to win elections. Although campaign meetings are by and large well patronised in most of the newer democracies, in both countries where a large number of political parties show ideological convergence, it is very difficult for voters to decide which party to vote for based purely on electoral issues and cognitive messages. Therefore marketing will help in sifting the winning party from the rest of the pack. In an effort to outdo their competition, political parties look for what works in other democracies and in so doing seek for help from their counterparts in the West. In order to investigate the notion that political parties in Malawi and South Africa look at the American style of campaigns as model for their own campaigns, an exploratory study of campaign practices in Malawi and South Africa was conducted, drawing on data from primary as well as secondary sources. This involved use of semi-structured interviews with politicians and content analysis of media sources. The conclusion of the study attests to the evidence of 'Americanisation' of Malawian and South African politics. However, in adopting the American style of campaigns, politicians are still conscious of the local needs and cultural norms.

Keywords: Americanisation; campaigning; ideological convergence; political uncertainty; political consultant; political marketing

INTRODUCTION

In their seminal article, Kotler and Levy (1969:15) argued that elections should be one of the new arenas of interest for marketing professionals: "political contests remind us that candidates are marketed as well as soap". The earliest use of the term "political marketing", however, did not appear in management studies literature but in the pioneering work of political scientist Stanley Kelley who charted the emergence of the professional campaign industry in the United States. Commenting on the activities of the first election consultancies, Kelley wrote: "The team relies heavily but not entirely upon their own intuitive feel for providing political marketing conditions. They pride themselves on having 'good average minds' that help them to see things as the average man sees them" (Kelley, 1956 p.53).

In spite of scepticism from marketing purists, those in sympathy with the ‘broadening’ thesis that involved the application of marketing principles and strategies to political campaigning began to attempt to establish and clarify the sub-field of political marketing from the 1960s onwards. By the mid-1970s, American scholars such as Avraham Sharma (1974, 1976) and the prolific Philip Kotler (1975) were to the fore in developing and deepening theoretical foundations for the subject. Similarly, academics in Europe began to consider the political dimension to marketing, positing the view that an exchange relationship existed between democratic elites and their voters (O’Leary and Iredale, 1976). By the mid-1980s, a steady stream of research discussing the emergence of the phenomenon helped confirm its importance (Mauser, 1983; Newman and Sheth, 1985). By 1988, David Reid felt able to conclude that: “In Western terms, although seldom recognised by politicians, the problem of getting elected is essentially a marketing one.” (Reid, 1988, p.34).

Among political marketing scholars, Kelley (1956) may be generally credited with the first use of the term ‘political marketing’ but Maarek (1995) observes that the first genuine manifestation of modern political marketing as a general, organised strategy dates back to 1952 with the United States presidential campaign of Dwight D. Eisenhower. He argued that political communication as such was not even an invention of the Twentieth Century because as far back as Antiquity, kings and princes knew how to exploit their reputation as warriors and used it as a preliminary scare tactic aimed at potential adversaries, as well as a device to help them raise taxes. Maarek further argued that the introduction of political marketing came with the elaboration of a *policy* of political communication, specifically: a strategy for the design, rationalisation and conveyance of modern political communication. He explained that the dominant role of modern political marketing in the USA was rapidly established: within less than a decade, between the presidential election of 1952 and that of 1960, it became an incontrovertible practice. He suggested that three main factors led to the development of political marketing in the USA, namely:

- (a) Its electoral system – with a system of primaries before presidential elections, where voters must choose one candidate over another, expressing broadly similar political ideas, rather than convince them to vote for a politician from an opposition party;
- (b) its tradition of elections for all public offices – in an effort to break from the former British colonial policy, it became routine to hold elections for most major public office holders from the local sheriff, mayor or judge to the president; and
- (c) the rapid expansion of the modern mass media – in 1952, there was already a television set in nearly 40 per cent of American homes and this figure was as high as 60 per cent in the north-eastern states.

The US literature identifies John Beckley, a member of the ‘Thomas Jefferson campaign team’ as one of the first political consultants, though similar roles could be identified much earlier in other societies. Robert Harris (2006) in ‘Imperium: A Novel Set in Ancient Rome’, suggests that Cicero’s brother was a political marketer and it has been suggested that Nicollo Machiavelli is the saint of political marketing. The rise of political marketing in the recent past has been attributed to the development of an investigative press, declining party loyalty, and changes in the political and electoral systems (Newman 1994). Most especially, researchers (e.g. Kavanagh, 1995; Scammell, 1995) have identified the expansion of the media, particularly television, as having a significant impact on its development.

THEORETICAL FRAMEWORK

Swanson and Mancini (1996) in their seminal article posit ‘Americanisation’ and ‘modernisation’ as working hypothesis to explain the spread of political marketing as a phenomenon. To provide a starting point for comparing campaign practices in different countries, we believe the ‘Americanisation’ hypothesis is particularly useful. In brief, the hypothesis holds that campaigning in democracies around the world is becoming ever more Americanised as candidates, political parties, and news media take cues from their counterparts in the United States. Many campaign methods and practices that have been adopted by other countries developed first in the United States, so Americanisation suggests itself as an easy characterisation of this pattern of innovation (Elebash 1984 cited in Swanson and Mancini, 1996).

The appropriateness of the term is contested, however, by some who argue that surface similarities obscure important national adaptations and variations (Waisbord 1993, cited in Swanson and Mancini, 1996). Furthermore, not every recent change in political campaigning in all countries of interest represents the adoption of methods and practice that emerged first in the US. We regard the matter as an open question and offer Americanisation as a reference point and a working hypothesis with which to begin the analysis. We believe the concept will be useful for comparing common elements in political marketing practice and electoral change, so long as care is taken not to overlook national variations, adaptations, and deviations from the general pattern.

Despite these caveats, our use of the term Americanisation reflects some important developments that are relevant to the recent changes in election campaigns around the world. Given its super-power status the results of US elections may have important consequences for many countries, which creates in those countries great interest in following the US campaigns. It can also happen that, as people in other countries follow the progress of a US campaign, their attention shifts from the candidates' goals and policies (which can have serious impacts internationally) to the way in which the election campaign itself is conducted.

RELEVANT EMPIRICAL AND CONCEPTUAL RESEARCH

De Vreese (2009) has observed that literature on the professionalisation of political campaigns is strongly biased towards the first-order (national) elections in the US and UK. Based on the survey of candidates for the 2004 European elections in eight European countries, she wanted to examine whether campaign efforts to mobilise voters were greater in countries with elite consensus on the issue of European integration than in countries with elite polarisation. The results showed that campaigns in the consensual electoral context in which political parties differ marginally on most issues of European integration were longer and involved more public meetings, more canvassing, and a more active use of the internet.

Hutcheson (2007) examined the development of political consulting in post-Soviet Russia and observed that in recent years, electoral politics worldwide has become firmly reliant on professional advice and labour. In developing democracies the influx of advice and consultants from the West initially resulted in an apparent Americanisation of political marketing techniques. As electoral systems have developed, the political consulting market in each country has evolved in a way suited to the specifics of its electoral conditions. His analysis places the electoral market in comparative context looking at the scope, structure and activities of political consulting firms, examining some of the controversies arising from the professionalisation of politics in each country.

Plasser (2000) notes the on-going process of professionalisation and internationalisation of electioneering and campaign practices in media-centred democracies as the central topic of his comparative study. He claimed that only recently have scholars in the United States begun to study the professional norms and standards of a new power elite: the professional political consultants. Prominent figures in the US political consultancy business have worked as overseas consultants since the 1970s. In 1980s, they concentrated in Latin America and Western Europe. Since 1989, Russia and the former Soviet bloc countries of Eastern and Central Europe, as well as newly democratised countries in Asia and Africa, have become competitive marketplaces for American overseas consultants. Between 1998 and 1999, a sample of 502 political consultants and leading party managers in the US, Australia, New Zealand, India, South Africa, Latin America, Western Europe, Russia and Eastern Europe were interviewed about their professional experience and their concepts of campaigning, with the main focus being their professional evaluation of various campaign techniques and communication strategies. Plasser suggests the existence of the market-driven proliferation of American campaign techniques across much of the countries where political consultants were interviewed.

Medvic (2003) however, focuses on the nature of political consultancy itself, and notes that although political consultants have increasingly been the subject of scholarly research, there is little agreement as to what a 'political consultant' actually is. Early research in the field, and a good deal of contemporary work, has provided only vague conceptualisations of the term. Recent quantitative work that attempts to examine the role and impact of consultants in elections suffers from a lack of a common operational definition. After a brief review of the way systematic empirical researchers operationalise 'professional political consultant,' Medvic (2003) offers a comprehensive definition that can be used in future research on the topic. He defines a

‘professional political consultant’ as ‘a person who is paid, or whose firm is paid, to provide services for one presidential/ national or more than one non-presidential / sub-national campaign (whether candidate or issue) per election cycle for more than one such cycle, not including those whose salary is paid exclusively by a party committee or interest group’. Medvic (2003) further notes that the study of political consultants and the consulting industry is gathering pace. In recent years, numerous books and articles have been published analysing the role of political consultants in elections in the United States, Western Europe and elsewhere. In addition, major studies have recently been launched to examine the activity of consultants, including the Improving Campaign Conduct project at the University of Virginia by Freedman (1999) and the Global Political Consultancy Survey based at the Centre for Applied Political Research in Vienna. Yet, for all the attention consultants are garnering, there seems to be little agreement on the definition of a professional political consultant.

If the claim that American-style campaigning is being implemented throughout the world can be tested, and if an integral component of American-style campaigning is the use of professional political consultants, then it is incumbent upon scholars to use a standard definition of the central concept when conducting empirical research. Downs (2011) has noted observers of elections in European democracies increasingly encountering the assertion that campaigns and candidacies have become poisoned by a creeping ‘Americanisation’. When a comedian in Denmark, a professional wrestler in Finland, or a porn star in Italy enjoys electoral success by appealing to lowest-common-denominator populism the response emanating from academic and journalistic quarters is typically the same—the US style of politics has, unfortunately, arrived. The literature supporting such seemingly pejorative claims is, however, largely anecdotal, usually atheoretical, and almost exclusively directed at national-level elections. Building upon theories of diffusion at the intersection of comparative politics and international relations—and drawing upon individual-level survey data from elections to the Scottish Parliament—Downs evaluated the merits and consequences of the Americanisation thesis. His results suggest the importance of political *uncertainty* as a force driving candidates and parties to learn from and adopt ‘American’ campaign strategies and tactics.

Newman (2012) has argued that to fully appreciate where the field has gone over the past decade, it is instructive to define exactly what political marketing is. For the purpose of establishing a conceptual foundation to move the approach forward, a definition was put forward in the preface of the ‘Handbook of Political Marketing’, the first formal collection of works in the field. Political marketing was defined as ‘the application of marketing principles and procedures in political campaigns by various individuals and organisations. The procedures involved include the analysis, development, execution, and management of strategic campaigns by candidates, political parties, governments, lobbyists, and interest groups that seek to drive public opinion, advances their own ideologies, win elections, and pass legislation and referenda in response to the needs and wants of selected people and society’ (Newman 1999, p.xiii). Considering this broad range of activities encompassed by political marketing, the focus is the strategic management of campaigns. Furthermore, what has changed most obviously over the past decade or so is the increasing amount of money necessary to pay for the execution of these campaigns. Changes in technology have also played a significant role in the successful implementation of strategies at all levels of political campaign. Needless to say, the field of political marketing has grown along with and through the establishment of more advanced technological tools that are essentially used to accomplish the goal of driving public opinion in a desired direction (Newman, 2012).

The application of political marketing methods continues to grow in North America, Europe, Asia and Latin America and is now part of campaigns and elections in emerging democracies around the world - whether it is a door-to-door localised grassroots campaign or a national campaign driven by the internet. This is increasingly the case in Africa, with a number of emergent political democracies exhibiting many signs of the techniques and strategies apparently developed elsewhere and debated by political marketing theorists. This is the main focus of attention for our investigation in this article.

THE AMERICANISATION OF AFRICAN POLITICS

From the foregoing discussion, we can formulate a specific question that addresses the key issue – is the American style of campaigning, identified above, a model that seems to have been adopted in other countries, including emerging democracies like those in Southern Africa? To investigate this, we undertook an exploratory

study of campaign practices in Malawi and South Africa, drawing on data from primary as well as secondary sources.

Within the scope of this enquiry, senior politicians from the six political parties represented in the National Assembly in Malawi were interviewed as well as key political marketing operatives from these parties. For South Africa, media reports about the use of experts and agencies by political parties in the last general elections in South Africa in 2009 were analysed to ascertain any evidence of Americanised styles of political campaigning. This analysis is followed by some thoughts and remarks on the current nature of political marketing practice in Malawi and South Africa and a discussion of the influence of culture in the adoption of any Americanisation of political campaigns. This includes how candidates and their advisors have perceived the use of 'experts' in campaigns.

METHODOLOGY

The case of Malawi

The study adopted a mixed methods approach to tackling the research question. Sampling was done purposively to only include participants who were knowledgeable and actively involved with the phenomenon. These included politicians (campaign directors, research directors and publicity secretaries) and media managers (of both private and public media) whose media houses were involved in the dissemination of messages by politicians.

Interviews were done in two phases. Phase 1 involved interviewing politicians while phase 2 involved interviewing media managers. Using the concept of professionalised campaigning by Gibson and Rommele (2001) which was later modified by Stromback (2007), interview questions for politicians and a 19 item Professionalised Campaign Index were produced. In order to measure each item on the checklist, a scale of zero to three emerged as the most practicable and broadly applicable level of measurement to capture variance across the various activities. Such an approach is consistent with earlier work by Gibson and Rommele (2001). An increase in the score reflected an increased level of engagement in the activity in question. Given that we had 19 variables in total, this meant a maximum score on the overall index of 57. Table 1.0 shows different items in the index score card.

Semi structured in-depth interviews were conducted with senior politicians (three from each of the five political parties and two from one political party) represented in the National Assembly. Data gathering tool in appendix 1 was used. The parties that took part were the Alliance for Democracy (AFORD), Democratic Progressive Party (DPP), Malawi Congress Party (MCP), Malawi Forum for Unity and Development (MAFUNDE), Maravi People's Party (MPP) and the United Democratic Front Party (UDF). Officers interviewed, were Directors of Campaigns, Directors of Research and Publicity Secretaries. Where the responsible officers were committed to other political engagements, they delegated the interviews to their deputies. Of the 18 eligible officials to be interviewed, 17 were interviewed while one party official was not available throughout the research period. These interviews took place between September 2011 and January, 2012.

During the interviews, they were asked to complete the Professionalised Campaign Index developed from the work of Rommele and Gibson (2001) and Stromback (2007). They were required to tick from the checklist all activities that they recalled their parties carried out in the previous campaign of 2009. In the course of the interviews, campaign directors were asked to clarify and provide examples to those activities their parties undertook. During interviews with Research Directors and Publicity Secretaries, some of the issues indicated by campaign directors on the checklist were also raised with these officials as a way of triangulating the information.

Further validation of research results were achieved through interviews which were conducted with 17 media managers from both the print and electronic media representing both the private and public media using a data gathering tool as can be seen in appendix 2.

Therefore, data used to assign scores was collected primarily through a self-assessment exercise by campaign directors and follow-up was by means of interview questions.

The Case For South Africa

Due to challenges of access and limitations in time of conducting the research project. And also due to the challenge of the lack of interested partner institutions to participate in a collaborative research project, data collection was by way of desk research. This involved consulting secondary data sources which mainly were online publications which were analysed for evidence of the use of political marketing expertise (in-house or otherwise) in conducting electoral campaigns in South Africa. Three online newspapers, namely the Sunday Times/The Times, The Star and News24 were analysed for information about the use of campaign professionals. Also, a number of online journals were analysed to trace evidence of Americanisation in campaign styles.

RESULTS

With regard to the indicative findings for each of the political parties represented in the National Assembly in Malawi, the full set of scores is shown in Table 1. From this, it is evident that all parties scored zero in three areas – namely presence and use of an internal internet communication system, presence and use of an external internet communication system and email sign-up or subscription lists for regular news updates/newsletters. One plausible explanation is the low usage of personal computers and internet connectivity throughout the country.

According to internetworldstats.com, by late 2011, out of the estimated total population of 15 million people, Malawi had only 716,400 internet users representing a 4.5% uptake (BBC News, 2012). Hence parties had to use other means of communication with their officials and the electorate as opposed to a reliance on the internet or emails. What we see from looking at the overall scores is that the United Democratic Front (UDF) was ranked the most advanced in their use of professionalised campaign techniques. The DPP were second, AFORD were third, MCP were the fourth, while MAFUNDE and MPP ranked the lowest on the index and shared position five of the rankings.

The UDF scored 30 out of the total 57. It was the first party to be in government after the advent of multiparty politics in 1994 and was re-elected in 1999 and 2004. In 2009 the party was fighting for re-election as an opposition party after its presidential candidate who won the 2004 elections on the party's ticket left the party in 2005 and founded a new party, the DPP. Over the 15 year period the party had been in government, it developed through its connections with Lord Steel of the Liberal Democrats in the UK, the ANC of South Africa, ZANU PF of Zimbabwe and Likud Party in Israel, established linkages with campaign professionals who helped the party in developing formidable campaign strategies.

The UDF scored full three points in the following areas: use of campaign controlled opinion polling, use of in-house expertise and/or outside consultants in news management/public relations; use of in-house expertise and/or outside consultants in analysing public opinion; conducting semi-independent research of strengths and weaknesses of their own campaign; conducting opposition research; and the campaign being continuous. It scored two points in four areas and one point in another four areas and no score in five areas.

The DPP scored 24 out of 57 and was second ranked. It was the incumbent party of government. It engaged in a formidable campaign and because of its resources was able to increase its visibility through use of campaign buses and branded products in party colours. The party appeared to benefit from a sympathy vote as many of the electorate felt that they had viable policies but were being frustrated by the dominant opposition block prior to the 2009 general elections (Langa, 2011). The party scored a maximum three points in the use of in-house expertise and/or outside consultants in advertisements and in running a continuous campaign. By most standards, the DPP campaign advertisements appeared to be outstanding (Chimpweya, 2009) and it was the first time on the Malawian political scene for a campaign to use campaign 'battle buses', billboards, brandishing Hummers (upmarket cars made by General Motors and used by celebrities in the U.S) and branded products, t-shirts, bottled water and celebrated musicians following the campaign. The DPP had links with established parties in Zimbabwe, Zambia, Tanzania, South Africa and the ruling party in China.

Table 1 showing Professionalised Campaign Index Scores by Party

	Campaign Item	AFORD	DPP	MAFUNDE	MCP	MPP	UDF
1	Use of campaign controlled opinion polling	0	2	0	1	1	3
2	Use of campaign controlled focus groups	0	2	0	0	1	2
3	Use of computerised databases	2	0	0	0	0	1
4	Use of in-house and/or outside consultants in news management/PR	2	2	1	1	1	3
5	Use of in-house and/or outside consultants in analysing public opinion	2	2	1	1	1	3
6	Use of in-house and/or outside consultants in advertisements	0	3	1	2	1	2
7	Use of in-house and/or outside consultants in voter segmentation	0	1	0	1	0	2
8	Use of direct mail to target groups	0	0	1	0	0	1
9	Use of direct mail to own members or campaign volunteers.	2	0	0	0	0	1
10	Use of telemarketing for contacting target groups.	0	1	1	0	1	0
11	Use of telemarketing for contacting own members or campaign volunteers.	1	1	1	1	1	1
12	Conducting semi-independent research of (SWOT) own campaign	2	2	0	0	0	3
13	Conducting opposition research	1	2	2	2	1	3
14	Use of rapid rebuttal-unit	0	1	0	0	0	0
15	Presence and use of an internal internet communication system	0	0	0	0	0	0
16	Presence and use of an external internet communication system.	0	0	0	0	0	0
17	E-mail sign-up or subscription lists for regular news updates/news letters	0	0	0	0	0	0
18	The Campaign being continuous	1	3	1	1	1	3
19	A centralised campaign headquarters coordinating management of campaign	1	2	1	2	1	2
	Total Score	13	24	10	12	10	30

AFORD scored 13 out of 57. It was the third ranked party. It was the party whose leader was the first champion of multiparty democracy. Although the party did not win the first general elections in 1994, this was mainly due to tribal and regional politics as its strong base was the northern part of the country where the voting population is low compared to the other two regions. Despite showing considerable activity in most areas covered by the index, it scored lowly because the activities of the party only covered a small part of the voting population. AFORD has links with some politicians in the USA because its founding president was an American graduate, hence it is not surprising that they funded his campaigns in 1994 and 1999 and supported him with armoured vehicles during campaigns. The real identities of the financiers were unknown since there is no law in Malawi compelling parties to disclose sources of their private financing (Parliamentary and Presidential Act 31 of 1993, p.66).

The MCP is the oldest party in Malawi. It is the party of independence in Malawi and was the only party up until in 1993 when the constitution was changed to allow for other parties to participate in elections. It scored 12 points out of a total of 57 and was rated fourth on the rankings. Its strong points were conducting opposition research, use of expertise in advertisement and running a centralised campaign from party headquarters. It is a conservative party which tends to reflect its attitude towards new innovations in political campaigns. The party continues to rely heavily on mass rallies and tribalism is inherent in its politics. It is

important to note that despite the cautious approach by the party in its campaign activities, the party had sympathisers who ran a number of internet blogs effectively on its behalf. Such blogs were discontinued immediately after voting took place.

The MAFUNDE and the MPP were scored 10 out of 57 and they both shared position five on the ranking. It is important to note that these two parties only competed at district levels hence their low scores in most of the other areas.

Voting Outcomes

Despite a high score of 30 points for the UDF, the party did not fare well at the polls. Their presidential candidate was barred from contesting because he had exceeded the term limit and in the ensuing confusion the party supported the MCP presidential bid and that impacted on voter perceptions. Partly as a result of this, the UDF came third in the elections.

The DPP – which scored 24 out of 57 – was given an overwhelming majority at the polls in 2009 as the electorate reacted positively to the party’s policies which were not implemented after the 2004 general elections due to the party’s low parliamentary representation to drive policy forward. The MCP – despite being a conservative party and not especially engaged with the use of new technologies and approaches – still became the second largest block of members of Parliament in the National Assembly after the DPP.

Therefore in terms of voting outcome, the DPP secured 114 MPs, followed by the MCP on 27, the UDF with 17 and 1 MP each for AFORD, MAFUNDE and the MPP. The rest of the members of parliament were elected to the National Assembly as independent candidates. From these results, we note that it not enough for a political party to adopt professionalised campaign or American-style of campaigning, there are other factors which can affect the party’s performance at the polls. For example, in the case of the UDF, which was the highest ranked in terms of having a professionalised campaign; their performance was not impressive as a result of the Malawi Electoral commission (MEC) rejecting their presidential candidate. We also note the emergence of professionalisation of campaigns in Malawian politics. Instead of the campaigns being short and decentralised, there is a shift towards being permanent in which experts such as pollsters and marketing consultants are playing key roles. This agrees with findings by Farrell (1996), and Farrell and Webb (2000) when commenting about elections and voting on a global perspective.

Results of voting outcomes

Party	Seats	% seats	Men	Women	% women
Democratic Progressive Party (DPP)	114	58.85	82	31	27.43
Independents	32	16.67	27	5	15.63
Malawi Congress Party (MCP)	27	14.06	24	3	11.11
United Democratic Front (UDF)	17	8.85	16	1	5.88
Alliance For Democracy (AFORD)	1	0.52	1	0	0.00
Malawi Forum for Unity and Development (MAFUNDE)	1	0.52	1	0	0.00
Malawi People's Party (MPP)	1	0.52	1	0	0.00
National totals	193	100.00	152	40	20.83

Source: MALAWI ELECTORAL COMMISSION 2009 "Summary of Successful Candidates by Gender and Affiliation for 2009 General Elections",

Interviews with campaign directors highlighted several issues. Some issues worth commenting about include how they perceived their role:

“My role involved assessing capacity of the party to participate in the election and

identification of candidates to stand for the party” [CD1] while another stated that it was about summarising key issues from the manifesto for message development and identifying key groups to target with the message – opinion leaders” [CD2].

Another issue that came up was the reliance of door to door canvassing and public rallies as opposed to direct mail or telemarketing. This was so because telephone uptake and mobile uptake is still low in Malawi and also the fact that parties do not have database of membership.

“We are the only party in the country with a database of our members across the country. While our friends are shunning the issue of party membership cards because of the bad history behind party IDs as the old Malawi Congress Party (MCP) forced Malawians to buy cards – we were all forced to be members of MCP during the one-party period. But in our case that is the only source of income since we do not get funding from parliament” [CD1]

It was also noted that these politicians were unable to offer a text book definition of political marketing but they were able to define the concept in their own ways. Examples include:-

“That is a very difficult term but I will try. May be it is about selling where you want to win public confidence to form government. It may also be about how to sustain that confidence based on a practical message.” [CD1]

“I do not know because it is a new term but I would guess it is about a political philosophy whereby people are made aware about the need to be competitive in many ways”. [CD2]

“It includes political activities intended to sell the party. The activities include marketing the party, the party agenda and analysis of all activities carried out by the party” [CD3]

“It is a very tricky question. {Laughs} My understanding is that it is more than salesmanship in relation to politics” [CD6]

Interviews from politicians and media managers also brought to the fore practices which parties were engaging in during General Elections, for example, the use of websites, the use of in-house and external consultants, segmentation of voters, campaign party broadcasts, posters, leaflets, jingles, music and dance during public rallies, door to door canvassing and political debates at constituency level which are marks of political marketing in the West. Although they do not call these practices by the technical term of political marketing, there is some evidence to support the existence of political marketing and use of campaign professionals.

The Case Of South Africa

Secondary data sources which mainly were online publications were analysed for evidence of the use of political marketing expertise (in-house or otherwise) in conducting electoral campaigns in South Africa. Three online newspapers, namely the Sunday Times/The Times, The Star and News24 were analysed for information about the use of campaign professionals. Also, a number of online journals were analysed to trace evidence of Americanisation in campaign styles.

Of particular relevance is an article by Tom Lodge (1995), who, writing soon after the general elections of 1994, analysed the results and their implications for the future course of South African politics. Lodge (1995) observed that before releasing its manifesto, the African National Congress (ANC) borrowed an approach from Bill Clinton’s campaign team, and convened a series of ‘People’s Forums’ at which Nelson Mandela and other select leaders would arrive at local gatherings. The audience would be summoned through press invitations directed at specific groups: workers, teachers, women, squatters and so forth. Here leaders would listen to the people (indeed, this was essentially the ‘Hearing’ phase of the ANC’s campaign).

Bertelsen (1996), writing about marketing political change for the 1994 South African elections, catalogued the attempts parties made to delineate themselves to the voters. She also discussed the different

agencies parties hired to help them with the campaign. For example, the ANC account was handled by Hunt Lascaris, advised by Frank Greer and Stan Greenberg, organisers of Clinton's successful 1992 presidential campaign. They suggested the ANC should avoid negativity and stick to key issues, underlying principles and a clear, positive message. Their advice seems to have set the tone for the campaign in that it was assumed people will be looking for a distinct set of policies: 'even if you do not read or cannot read the details, you get the message: the ANC has a plan; it's serious' (Greenberg, 1994).

The National Party (NP) advertising account was handled by Optimum Marketing Communications, the South African subsidiary of Saatchi and Saatchi. Bertelsen (1996) observed that the electorate were in for a Battle of the Titans in political marketing terms: packagers of Bill Clinton versus marketers of Margaret Thatcher. Interestingly, the National Party – with its association with apartheid – was offered as "The New National Party" (BBC News 2005 and Independent online News (2005).

The Democratic Party (DP) advertising account was handled by The Jupiter Drawing Room and their campaign message was to portray themselves as a small, strong and principled, organisation, indeed a blameless party ('with no blood on our hands') who could protect the voters from abuse (Bertelsen, 1996). Bertelsen (1996) observed that Mass Market Co-ordination was responsible for setting up the Inkatha Freedom Party (IFP) campaign ads. Nationwide they were few in number, and concentrated, due to Inkatha's strategy of withdrawal and then late re-entry into the process, in the last week of the campaign. Freedom Front's (FF) advertising campaign appears to have been handled internally by Communications academic Professor Pieter Mulder who is its current leader. The party is also known as Vryheidsfont (VF) due to its Afrikaner links.

Johnston (2005) has observed that the opposition Democratic Alliance (DA) moved much more quickly, openly and aggressively than the ANC to develop the kind of focused media and campaign strategies characteristic of mediated politics and 'Americanisation'. Using focus groups to direct targeted advertising, and media strategies that combine rapid response rebuttal with self-conscious image building around its leadership, it has successfully remobilised whites and other minorities by appealing to them as consumers, rather than on the basis of any deeper or longer-lasting attachment.

Agiza Hlongwane (2009) writing for The Star under the heading 'South African politicians innovate to win voters', showed how parties turned to technology, T-shirts and taxis to get their messages across: even water bottles, bibs and CD pouches were branded in party colours by the ANC and IFP. She observed that Thabo Mbeki had emerged as the most popular South African politician on social networking website Facebook after Nelson Mandela: "[i]t seems, South African politicians have sought to emulate Barack Obama in using technology such as SMSes, e-mail and social networks to drum up support" (Hlongwane, 2009, p.8). Sibusiso Ngolwa (2009) writing about how the "Obama bug 'bites the ANC'" commented about the song the ANC campaign had produced which drew parallels between Mr. Obama's and Mr. Zuma's humble backgrounds. Siyabonga Mkhwanazi (2009) observed that posters were still a vital communication tool during campaigns in South Africa and Kim Hawkey's comments (2010) about the spiraling costs of campaigns bringing to the fore the fact that the ANC hired the services of advertising agency Ogilvy for their 2009 campaigns, who were now demanding payment for their services.

Given this, there is little doubt about the Americanisation of campaigns in South Africa, though the performance of political parties during elections cannot solely or even mainly be attributed to this Americanisation. There are other underlying factors which would need to be explored. As noted by De Klerk (2010), disappointingly, voters continue to cast their votes overwhelmingly according to race and not according to political principle or their satisfaction with the performance of a government. This, he observes, will mean that the Democratic Alliance (DA), despite its energetic leader – Hellen Zille – will find it difficult to increase its support much above the 20% represented by the white, coloured and Asian minorities in South Africa.

CONCLUSION

Whilst literature has clearly identified the Americanisation of campaigns in Europe, Latin America and Post-communist Russia and also recently in some parts of Asia, there has been little specific discussion of Americanisation in the emerging democracies of Africa, such as the Republic of South Africa and Malawi.

Through primary and secondary data sources, we have managed to show that political parties in Africa, in general, and South Africa and Malawi, in particular, have hired experts to help them with their campaigns during the elections of 1994, 1999, 2004 and 2009. From the foregoing, it is clear that political parties in both countries have used external as well as internal experts in designing their campaigns and that much of their political marketing practice is broadly consistent with what theorists have termed ‘Americanisation’.

In Malawi, for example, there has been evidence that as early as 1994, the Alliance for Democracy (AFORD) had links with their American partners who helped the party in its campaigning; the United Democratic Front has enjoyed links with the Liberal Democrats of UK through Lord Steel and have received campaign assistance in 1994, 1999 and also in 2004. The UDF has also worked with experts from Israel and other parties in the SADC region, namely the ANC and ZANU PF. In the 2009 general election, the DPP in particular used typical US-style marketing methods and branding.

In South Africa, Americanisation has appeared to be more advanced still. Both the ANC and the National Party hired campaign advisers battle-hardened by American-style campaigns. The establishment of “Hearing Forums” was an obvious feature that was copied from American politics and the marketing professionals behind such approaches have been used in subsequent general elections up to 2009. In both countries, campaigns have featured the specific branding of products in party colours which has been a noticeable feature of the recent campaigns in both Malawi and South Africa.

Such trends are likely to continue and intensify. It has also been shown that at times, party leaders have positioned themselves in the style of Western leaders. However, in adopting these new approaches, politicians are still conscious of the local needs and cultural norms, as one politician from Malawi summarised for us as follows:

“We are aware of the pressure our western friends are putting on us to change our campaigns to look like theirs. They want us to be in fast-track mode which can be dangerous for Malawi. We will get there. Just give us the time because we need to respect our culture as well”. (CD2)

Clearly, it has been observed that the methods and customs of election campaigning are deeply embedded in each nation’s political culture. This affects the introduction and adaptation of innovations associated with modernisation. Perhaps the most important aspects of national political culture that affect campaign practices concern political socialisation and participation, structures of social aggregation and the development of consensus, together with the roles and functions of primary and secondary groups and the effectiveness of their channels of communication.

While Malawi and South Africa are still in a period of transition, and with the caveats identified above, a trend towards more ‘high-tech’ and marketing-driven campaigning can be detected, with ‘Americanisation’ a clear and distinctive influence.

APPENDICES

Appendix 1

List of Questions Asked by Interviewer to Political Party Campaign Directors/ Research/ Publicity Questions

1. Can you please outline how you were involved in the last general election?
2. What business would you say that you are in?
3. What is your “product” or “service” that you are selling to the public (electorate)?
4. Who are your customers and how do you know?
5. a) How do you plan and run the campaign?
b) How do you involve party officials in the planning and management of campaigns?
6. Who decides the campaign budget and what might inform their decisions – how did the party arrive at such a decision?
7. a) What sort of campaign materials did the party use in the last election?

- b) Which new materials would you introduce at the next election?
8. How did you arrive at the decision that those materials (tools) would be effective? How did you evaluate the effectiveness of the campaign materials?
9. What do you understand by the term – Political marketing?
10. How would you use political marketing in your work as a Campaign Director?
11. What campaign techniques are currently used by your party now?
12. Which campaign techniques do you consider contributed the most to your
13. How do you finance your campaign programmes before, during and after the elections?
14. How do you research on the needs and aspiration of voters in each election?
15. How do you know what other parties are doing on the political market, before, during and after an election?
16. What are the most salient issues in political campaigning you may want to share with me?
17. What general comments would you like to make about political campaigns in this country?
18. How have campaigns changed over the last 10 years?

Appendix 2

List of Questions Asked by Interviewer to Media Managers/ Editors/ Senior Reporters

Media Access

1. What is the level of access that organisations (including political parties) have to mass media in this country?
2. Do different elements of society such as activists and the opposition have access to the media?
3. If there are gatekeepers between media and other organisations, who are they and how are they selected?

Media Diffusion

4. What is the ability of the media to diffuse/ spread messages to a wider audience?
5. Which segments of the population do your media reach?
6. How does the existing infrastructure of the country affect media diffusion?
7. Has media diffusion been affected by rates of illiteracy and poverty?

Media Control

8. How much control do media owners display over editorial freedom?
9. What kind of professional standards do media personnel in your organisation adhered to?

Campaign Management

10. What role do media play during election campaign period?
11. Can you describe the process used by political parties and candidates to refute statements made by other parties and candidates?
12. How do parties and candidates collect information required for the refutation of such statements?
13. What have been the changes in the way in which statements are refuted in recent years? Why do think these changes have occurred?
14. What was the level of coverage of political /campaign issues by your media house during the campaign period?
15. What are your thoughts over how campaigns have been conducted over the years?
16. How do you see campaigns changing over the next 10 years?

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ESTIGMA AND PREJUDICE: THE BRAZILIAN EMERGING CLASS ENTERS THE TEMPLE OF CONSUMPTION

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ABSTRACT

The emergence of a “new” middle class in Brazil and other emerging countries is a recent phenomenon that deserves the attention of marketing scholars, but that has not been under investigation. This paper addresses the enactment of consumption by ascending consumers in the context of shopping malls. Using an interpretive approach, the study investigates specifically the perceptions of consumers from the “new” middle class in regard to service encounters and, specifically, their interactions with sales clerks. The data come from 18 in-depth personal interviews with members of this social stratum. The results show that these consumers perceive manifestations of prejudice and stigma in their contacts with other consumers and with salespeople in the stores. Ascending consumers employ several strategies to avoid being humiliated, or excluded from these “temples of consumption”.

Keywords: Low-income consumers; power; stigma; prejudice; shopping mall

INTRODUCTION

The recent arise of millions of consumers from poverty to the middle class in emerging economies is probably the most important social phenomenon of the 21st century. In fact, it is believed that at least one billion people are part of this upward social movement, mainly in, but not limited to, the BRIC countries. Several estimates suggest that in Brazil this number is somewhere around 22-25% of the population (45 to 50 million people) that ascended to the middle class during the last two decades. Altogether, more than 50% of the Brazilian population is now part of the middle class. This phenomenon has substantially changed the face of consumption in the country.

As the “new” middle class gained access to shopping malls – the “temples of consumption” of contemporary societies – there are inevitable conflicts, open or disguised, between traditional stakeholders (and guardians) of these spaces of consumption and the ascending consumers. This study looks specifically at the issue of how ascending consumers perceive these encounters. As such, it contributes to the understanding of cultural encounters between different social groups within the sphere of consumption, a topic that has been largely neglected by marketing scholars.

THEORETICAL FOUNDATIONS

Human beings can be understood by examining their possessions (Belk, 1988); goods and services are used in contemporary societies to build and reveal one’s identity. Consumption serves as a means to communicate to society, to relatives, and to ourselves who we are or how we want others to think we are. A complex dialogue goes on between one’s possessions and one’s identity, status, and position in a social group. Consumption is, therefore, a critical element to establish distinction (Bourdieu, 1986).

Social spaces of consumption can be understood as a field of power relationships, in which people are organized according to the amount of capital they control: economic capital (financial means), social capital (relationships), and cultural capital (taste, education and lifestyle) (Bourdieu, 1986). Power is a social construct, which implies that one individual exerts control, command, or ascendancy over others. Power and hierarchy are related; power is used to structure and organize individuals in hierarchical groups. Therefore, in consumption spaces, whether geographical or social, one can recognize the constant interplay between power and hierarchy. In these spaces, consumers can feel and act powerless or powerful, depending on their social position in relation to others (Rucker, Galinsky & Dubois, 2012; Rucker, Hu & Galinsky, 2014).

Members of each social class develop stereotypes of those belonging to other social classes. Stereotypes are a simplified mental representation of individuals from another group, which are not neutral, but invested with negative, or positive, connotations. Essentially, stereotypes deal with the opposition of “sameness” and “difference”, of the in-group and the out-group.

One of the ways by which distinction is built between members of different social classes has to do with “taste” (Bourdieu, 1986), the set of acquired preferences and lifestyle characteristics that an individual learns very early in life from his/her social group. According to Simmel (1957, p.544), fashion itself “is a product of class distinction”. As a result, members of the traditional middle class have stereotypical ideas of how member of upper and lower classes think, act, and consume. Consumption is essentially a symbolic and social activity.

Stereotypes and stigma are interrelated concepts. Stigma presupposes an impersonal relationship with the other, who is not seen as a full individual, but is represented by certain marks of inferiority attached to the specific type of stigma. Stigma is thus associated to defect, deviation, failure, or disadvantage relative to others. A stigmatized individual is undervalued by society, and shows a deteriorated social image. He/she may feel unsure of how others will classify and address him/her (Goffman, 1959, 1963). Stigmatized individuals tend to occupy social spaces where they can find others in the same class of stigma (Goffman, 1963).

According to Lefèbvre (1976), urban spaces are one of the most important means of classification in contemporary societies. Urban spaces are social constructions by collective actors, who co-create and use it. The author sees urban spaces as the loci where things, people, and exchanges are brought together. Because of their importance in modern societies, being excluded from these spaces equates being excluded from society.

Among the spaces of consumption in contemporary societies, malls are places of fantasy and desire. As such, they attach meaning to the goods and services, to the extent that *what* one buys becomes as important as *where* one buys (Paterson, 2006). Customers of a shopping mall tend to belong to the same social group, since malls are carefully located, designed, and promoted to serve narrow segments, usually defined by social class, but sometimes also by race or ethnic origin. As a result, customers of a shopping mall tend to be quite homogeneous, with the exclusion of those that are “different” (Pintaudi & Frúgoli, 1992). Sameness is the organizing principle of the mall as a space of consumption: habits, behaviors, and usage are essentially repetitive. Behind the architecture, the décor, the stores, and the choice of merchandise, a persistent effort to eliminate the difference exists (Lefèbvre, 1976).

METHOD

The research was conducted with methods based on hermeneutic philosophy for use in consumer research, following the recommendations of Arnold and Fischer (1994) and Thompson (1997). Pre understanding was embodied in the first author, who belongs to the new middle class. She was raised and lives in a low-income neighborhood in the city of Rio de Janeiro. She has conducted the interviews and, because the interviewees (residents of the same community) could see her as “one of them”, they felt quite free to state their views of how more affluent consumers and sales personnel to them in the malls related.

The other author had limited prior understanding of respondents’ culture and brought useful naïve perspectives to the research process, which helped in the regulative function (Arnold & Fischer, 1994). During the fieldwork and in the process of data analysis, the interviews were submitted, in both audio and transcript formats, to a group of faculty and graduate students devoted to the study of consumption in emerging social

classes. Like the first author, two students in the group also belong to the new middle class and live in low-income neighborhoods. The discussions within the group, which represents a dialogic community, contributed to the interpretation process.

Data was gathered in eighteen in-depth interviews (Table 1 presents some information about the interviewees), which were recorded and transcript. The community, where the first author and the interviewees live, is located very close to wealthy neighborhoods, a characteristic of the organization of urban spaces in the city. For this reason, in the surroundings, there are seven shopping malls, which target different income groups.

Table 1: Interviewees

Name	Age	Persons in HH	Occupation	Education	HH income
Claudia	33	1	Secretary	College	R\$ 1.700,00
Renata	21	5	Student	College student	R\$ 3.800,00
Marisa	36	3	Small retailer	College	R\$ 3.100,00
Ana Maria	42	3	Housemaid	Elementary (unfinished)	R\$ 3.900,00
Karina	20	2	Sales clerk	High school	R\$ 2.250,00
Eliete	35	4	Small retailer	Elementary (unfinished)	R\$ 9.500,00
Rayane	21	4	Sales clerk	High school (unfinished)	R\$ 2.400,00
Caroline	24	3	Sales clerk	High school	R\$ 2.000,00
Regina	28	3	Sales clerk	High school	R\$ 2.350,00
Isabel	36	2	Sales clerk	College	R\$ 5.300,00
Verônica	35	4	State employee	College (unfinished)	R\$ 2.700,00
Eliane	38	3	Housemaid	Elementary	R\$ 3.300,00
Cida	37	4	Housemaid	Elementary	R\$ 3.700,00
Silvana	25	1	Security agent	College student	R\$ 1.400,00
Rosa	45	5	Housemaid	High school	R\$ 2.400,00
Maria	56	2	Small retailer	Elementary (unfinished)	R\$ 3.300,00
João	40	3	Security agent	Elementary (unfinished)	R\$ 3.100,00
Flávio	36	3	Sales clerk	High school	R\$ 6.200,00

NOTE: R\$ 3.00 = US\$ 1.00

RESULTS

Malls as Surrogates of Class Distinctions

The interviewees classified the seven malls in the surroundings according to their positioning. Two malls are considered as the realm of the wealthy, and largely avoided. Another three are seen as belonging to an intermediary category, targeting the middle-class. Finally, the other two are perceived as targeting lower income classes.

The upscale malls are rejected by our interviewees; they don't "feel comfortable", or "feel right" in these malls; one believed it was "better not even to get close". They describe the consumers that patronize these malls as "snobs", "rich people", "chic", "elegant", "stylish". Women in upscale malls are described with the following attributes: "blond", "long hair", had passed plastic surgery ("silicon everywhere"), "long nails", "high heels", "the best perfumes", "branded shoes", and "purses costing five thousand". They are believed to spend substantial amounts of money with garments. The mall itself "smells differently" and even the restrooms are "recognizably better". The store mix is also different: "there are no big stores or department stores; all boutiques..." The goods are perceived as "very expensive". In fact, as Maria noted, "one pays for the ambiance". The food itself is the same she can eat in a less expensive mall, but "you have to pay more because it is so chic there".

In contrast, the malls targeting lower middle class consumers were perceived by some interviewees as "friendly", a place where "one feels at ease", with "people like us", customers that have similar habits,

appearance, and behavior. Renata stated: “I like Mall X because it is more like our place here, and people have less frills...”; and Flavio noted: “there, nobody stares at you”. However, not all interviewees shared the same view of the low-income malls. Some were in fact quite critical of the stores (“not well organized”), their assortment (low quality merchandise), the type of consumers that populated the space (“people from the slums”), the way they dressed (“poorly dressed”, “funk looks”), and the number of customers (“a mob”), causing physical insecurity. It seems therefore that some ascending consumers identify with those malls that target less affluent consumers, while others reject the label of “low-income consumers” and identify with middle-class malls.

Interestingly, those malls designed to serve several segments of the middle class were considered most attractive. One specific mall, Mall Y, is preferred. This mall combines an area with popular stores, designed to serve the lower-middle class, with another area targeting the upper-middle class. These two spaces are in fact separated physically, but they are easily accessible. Nevertheless, some of our interviewees explained that they avoided the upper middle class area. Marisa describes the two areas: “There is a space for people from the B and C classes, but there is also another space... It is as if there were a wall, an invisible wall between the two spaces...”. And Eliete explains that “I go where everybody goes; but in the more elegant areas, I never go...”

Stigma of Poverty

Ascending consumers tend to perceive themselves as still carrying the stigma of poverty, because of their appearance and behavior. They believe that the ways they dress, speak, and act inform their social class. Other indications they perceive as used by others to stigmatize them are skin color and hair type. Rayane and her African-Brazilian boyfriend entered a store in an expensive mall, but the saleswoman did not pay any attention to them. Rayane guessed: “She looked at us, but she did not move, nor say anything. She must have thought: they are coming in just to look, but have no money to spend.” Karina is an interesting case. She is blond and has blue eyes, like many upper class Brazilians. However, she lived in severe poverty during her upbringing. As a result, she feels as discriminated as those that believe to be stigmatized because of their skin color.

Several of our interviewees reported that affluent consumers had a discriminatory attitude towards them; however, they were unable to recall any specific discriminatory act. It was just “the way they stared at me.” Renata explains: “When you enter the mall, you see people very well dressed, much more elegant [than in popular malls]. I think that when you enter the stores, they look at you... I think that appearance counts a lot.” Ana Maria has similar views: “The salesperson sees everything. They check your clothes, your purse, your shoes, your appearance... They know *who* you are.” Both of them seem to believe that, because of their appearance, they might be poorly treated or ignored if they decide to attend spaces of consumption that are not intended for their social class. As a result, they tend to avoid public spaces of consumption that are designed to serve the wealthier.

Interestingly, some of our interviewees, despite their humble origins, have been able to accumulate some wealth. Yet this has to do solely with economic capital; they have not acquired cultural capital, which would permit them to know the implicit rules of dressing, speaking, and acting that could be used to attest their ascent.

It seems that the salesperson plays a critical role in the way ascending consumers perceive the mall experience, whether they feel discriminated or not. Several interviewees reported that other customers were served first, because they looked better, or showed signs of being wealthier. Ana Maria was left alone by a clerk (“because I look like *this*”), who ran to serve another customer that had just entered the store. At the end, she notes, “the other customer did not buy anything, and I did. I will never forget this experience.” Interviewees claimed to feel troubled, upset, or offended when vendors did not adequately address them.

The feeling of being discriminated appears with greater intensity in situations where consumers recognize the salesperson as belonging to their same social class, and therefore experiencing the same reality of having to deal with a constrained budget. However, because the salesperson belongs to the low income strata, he/she can readily recognize the peers, and refuse to serve them. In these situations ascending consumers tend to feel even more rejected and stigmatized, triggering a deep sense of injustice. Silvana explains: “Even the salespeople are snobs, they think they are worth more only because they work there... She works there but she doesn’t have the

money to buy there. And she talks as if she were one of them, like a madam... It is an illusion, she is there, but she does not belong to that world.”

The Brazilian anthropologist Roberto DaMatta suggests that in contexts where vertical social relations are important, employees tend to identify with the employer, and therefore develop a self-image that is coherent with the employer. As a result the employee will exert power over those belonging to lower income strata, even if the salesperson also belongs to the same social group. In fact, the salesperson wants to establish a distinction and to distance him/herself from his/her peers.

Strategies against Stigma

Consumers develop several strategies to implement their new status of ascending consumers, when they feel stigmatized as “poor people”. Such reactive behaviors aim to recover the position of power in the social relation and to assert their new social condition. Some are implemented before they buy, and others during the act of shopping.

The first type of strategies is directed towards preventing being stigmatized. Because products can be used as status symbols and give clues about the identity of the user, ascending consumers use brand names that attest their buying power, in order to avoid being stigmatized. Ostentatious consumption is thus one of the strategies adopted to prevent stigma.

Isabel has an iPhone and whenever she goes to a store she boasts the phone to show status, represented by the easily recognized prestigious brand. She uses the object as a way to demonstrate her purchasing power, thus drawing the attention of salespeople and avoiding embarrassing situations. She comments: “When I enter a store I already have the iPhone in hand ... I leave my son with the Ipad ... It is amazing how they [the clerks] run towards me.” Other products that are also seen as status symbols and, like charms, carry the power of avoiding stigma are the keys of a car or a brand name purse.

Ascending consumers ostensibly carry objects that are easily recognized as positional consumption to avoid unpleasant situations in a mall. The belongings are used to neutralize any signs of poverty and ensure that the consumer is perceived as a worthy customer, and therefore receives the appropriate attention and respect from the clerks in a store. It is also used as a response to prejudice from more affluent customers in the store.

The second type of preventive strategies consists in avoiding situations that could eventually lead to embarrassment or humiliation. Respondents reported that they do not go into shops that appear to be “chic”, thinking that the prices are high and thus they would be unable to buy. They also reported to avoid spaces of consumption they consider to target higher income customers. This behavior underlines the fear of being identified as poor and therefore stigmatized, discriminated, humiliated, or even excluded. Accordingly, they avoid certain malls, certain areas of the mall, or even certain stores, which they recognize as positioned to serve affluent consumers. Ascending consumers want to avoid these situations, as well as the feelings of inferiority and vulnerability that these potential threatening occasions can bring.

The following strategies were identified during the act of shopping: (1) to show a credit card; (2) to pay cash, using money or debit cards, without taking advantage of the payment in installments; (3) to buy an item one did not intend to purchase, just to demonstrate purchasing power; (4) to simply leave the store, and buy in another one in the same mall, sometimes returning to the very same store, in a revenge behavior, to show to the clerk that she (he) could afford to purchase; (5) leave the mall.

Although ascending consumers have benefited in recent years from the increase of their purchasing power, their income is usually still limited. The credit card operates as a passport to the “world of consumption”, allowing to pay in installments, a practice largely used in Brazil, therefore giving access to goods that were unattainable before, and now can be accommodated in a restrained family budget. However, the benefits of the credit card to emerging consumers go beyond the economic access to goods and services.

The presentation of the credit card appeared in the stories of several interviewees. Eliane explained: “Today we can buy. We have the card, we can even pay in installments, you know, today is not like it was before.” Owning a credit card means one can display purchasing power and thus be treated as consumers in his/her own right. It is a symbol of belonging to the world of consumption, from which the individual is not excluded anymore. Karina summarized “I am poor, but I can buy, I have my credit card”.

To show a credit card operates in two ways: first, it symbolically establishes equality with the other customers; second, it makes the salesperson aware that the customer is capable of paying, and is not making free use of the salesperson time without the intention of buying.

Ana Maria felt disadvantaged when she had to compete for the attention of a salesperson with a more affluent client in a consumer space. By displaying her credit card she expected to be considered a “full person” and to be treated accordingly. The credit card performed a symbolic role in the occasion, serving as a bridge for social acceptance and consumption. “I felt bad, but I did not care ... because in the same way she [the other customer] had her little card, I had mine too.”

Marisa also sees the credit card as a symbol of ascent and belonging: “I feel comfortable anywhere, I have money to pay. I have no problem with those attending. I have my card, so that I do not feel ashamed of anything.” Eliete feels the same way: “People still have the illusion that the poor cannot buy, because they don’t work. Today everybody works, everyone has a card and can pay in installments, 12, 24 times. And the poor enjoy good things too... It’s not because I’m poor I’ll take something only because it is cheaper.”

The second and third strategies may have a deleterious impact on the consumers’ finances, since they either pay cash for something they could pay in installments and would better fit their budget, or they buy something they did not intend to. In both cases, the purpose is to display economic power, despite their “looks”. For example, when feeling humiliated because a salesperson ignored her, Karina used her credit card to buy a product she could not afford, even knowing that it was too high an expense for her at the time. And Eliete went to (what she thought to be) a “classy” furniture store, where she felt she was treated with disdain. She then paid everything cash. In spite of the impact on her budget (she had planned to pay in installments), she felt powerful (Rucker, Galinsky & Dubois, 2012) and triumphant.

The fourth strategy is employed after facing discrimination. Silvana, for example, reported that after entering a store and being treated without respect by a clerk, she immediately left the store and went to another, where she bought what she wanted, and returned to the first store to show the salesperson that she could buy the product. She comments: “It is not fair. They judge who you are based on your looks. They think you are a poor person who cannot afford to buy a thing. I wanted to show her [the clerk] that if she had served me well I would have bought with her.”

FINAL CONSIDERATIONS

The ascent of millions of consumers to the middle class in emerging countries has created immense opportunities for companies to explore, but they have also generated potential conflicts in the marketplace. These spaces of consumption, until recently inaccessible, are now populated by members of the “new” Brazilian middle class.

This study provides an insider’s view of how ascending consumers – those belonging to the “new” Brazilian middle class – enact their status as consumers and citizens. The study identified several strategies used by ascending consumers to avoid being classified as “poor people,” “non consumers,” or “nobody,” as well as strategies used to confirm their right to consume, or to punish those that treated them poorly.

The study also highlights a phenomenon that has rarely been studied by marketing scholars: the case of “invisible” consumers, those that are not recognized as such by the salespeople. Interestingly, ascending consumers seemed to feel less uncomfortable with how affluent consumers looked at them, than with being ignored by the clerks in a sales encounter in the mall.

The strategies used by those consumers can be interpreted as an effort to empower themselves vis-à-vis other customers and the salespeople. Rucker and Galinsky (2008) and Rucker, Galinsky and Dubois (2012) claim that consumers may compensate the feeling of powerlessness by acquiring products that signal status. We have shown that ascending consumers also display these products in the store environment to implement their new status in the world of consumption, thus avoiding being ignored, and excluded.

This study presents limitations that need to be addressed in future studies, including the specific group studied and the number of interviews conducted. Other research should look at these issues, providing new contributions to the understanding of the phenomenon.

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BUILDING ENDURANCE: COMMON PRACTICES OF COMPANIES IN BUSINESS MORE THAN ONE HUNDRED YEARS

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ABSTRACT

If survival is the ultimate performance measure, as proposed by former McKinsey managing director Ian Davis, then corporations exhibit dismal results when evaluating years of existence versus potential lifespan. Previous research on corporate longevity has focused on small samples of large, public firms. However, most old companies, as well as the majority of all businesses, are small- to medium-sized and privately-owned. This paper present the results of research testing a theoretical longevity model on small- to medium-sized, privately-owned companies in Japan and the United States.

Keywords: Corporate longevity; sustainability practices

INTRODUCTION

The average age of companies today is 12 to 15 years and the lifespan of top companies is shrinking. The average age of companies on the S&P500 Index dropped by nearly 50 years since the 1950s: the average age of a company in the S&P 500 in 1958 was 61 years; this decreased to 25 years in 1980, was just 18 years in 2012 and 15 years in 2013 (Hewitt, 2004; Innosight, 2012; Owens, 2014). Today, less than one percent of all companies operating in the United States are over 100 years old (TenHaken, Rumsey, & Sale, 2011). Yet some companies do survive for over a century and it has been estimated that the natural lifespan of a corporation could be as long as 200 to 300 years (de Geus, 1997). When evaluating company performance in terms of years of existence versus potential longevity, many firms do not live up to their potential. If accepting the proposal put forth by former McKinsey managing director Ian Davis (2014) that survival is the ultimate performance measure, one is left with the conclusion that corporations overall exhibit dismal results. How have some companies managed to defy the odds? Are there keys to corporate longevity we could learn by studying the management behaviors and practices of old companies? Several of the oldest known continuously operating companies in the world are Japanese, with seven having been founded prior to 1000ⁱ. This research seeking to answer questions regarding corporate longevity began in Japan, with its large, readily available data base of old companies. However, questions arose as to whether the particular practices of these old companies were culturally specific to Japan. Therefore the authors also tested their theoretical model on companies in the United States that have been in operation for over 100 years.

Previous research on corporate longevity has been conducted on large, publicly-owned companies with small (four to 18) sample sizes (Collins & Porras, 1994; Pascale, 1990; Hall, 1997; de Geus, 1999; Grossman & Jennings, 2002; Stadler, 2007; Kwee, 2009). According to the U.S. Census Bureau, businesses are overwhelmingly privately-owned (99.79 percent) and small- to medium-sized enterprises (99.75 percent). The authors' data base of 100-year-old U.S. companiesⁱⁱ indicates that over 62 percent of these companies are private and well over half are SMEs (TenHaken, Rumsey, & Sale, 2011). Therefore, this paper will add to the current body of knowledge regarding corporate longevity by focusing on companies that represent the majority of all

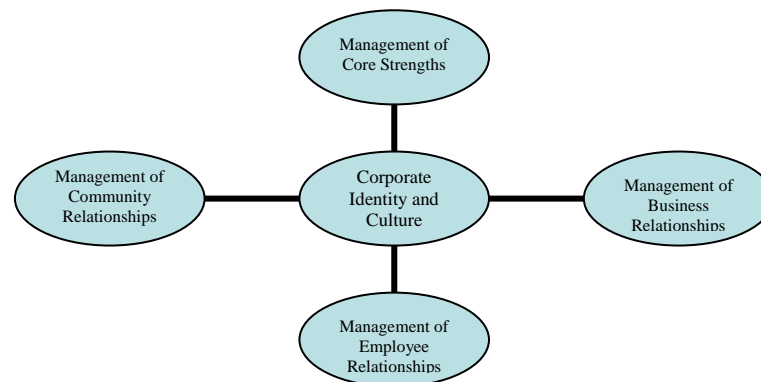
businesses as well as the majority of firms over 100 years old: small- to medium-sized business that are privately-owned.

- Hypothesis 1: Companies that have survived for over 100 years engage in common management practices.
- Hypothesis 2: The practices associated with longevity are different from behaviors of young companies.
- Hypothesis 3: The common practices associated with longevity are not culturally specific to Japan.

METHODOLOGY

Working from in-depth case studies of 17 Japanese companies over 100 years old (Iwasaki & Kanda, 1996), the authors developed a theoretical longevity model consisting of five factors the old companies believed gave them a unique position leading to their longevity (Kanda & TenHaken, 2012).

Figure 1: Theoretical Longevity Model



Management of corporate identity and culture: Company leaders consistently cite the importance of their corporate values as a primary factor in the success of their businesses. These traditional values and beliefs form the fundamental culture of the company and are used to enhance employee identification with the business. Managers see themselves as stewards or custodians of the business and feel an obligation to manage the firm in a way that honors the past and ensures its survival into the future.

Management of core strengths: The existence and protection of a particular technical specialty or core competency is another key longevity factor. These company “secrets” or special methodologies are believed to be difficult to copy and make the organization unique. The old companies indicated their long-term survival comes from continuous efforts toward change while protecting and building on these core strengths.

Management of business relationships: Old companies regard the maintenance of long-term relationships with customers, suppliers, and other business partners from generation to generation as very important to their own success. This approach reinforces the loyalty of business partners, increasing the company’s ability to weather business challenges as well as their capacity to learn and adapt over time.

Management of employee relationships: Relationships are at the core of how the old companies operate and the development of long-term relationships with employees is no exception. The old companies make every effort to retain employees and many become lifelong, loyal members of the organization, often describing their relationship with the company as being part of a family. The old companies also emphasize the importance of developing future leaders from within the company.

Management of community relationships: Because the old companies see themselves as an integral part of a web of relationships, often connected to their family history and reputation, the development of relationships within the local community are seen as just as important as those with business partners. The old companies are active members of their local communities, promoting the community and developing local networks for mutual

learning and benefit. They believe their business benefits from their community's good reputation, so they invest time and resources in projects to develop and sustain their local communities.

Based on this theoretical longevity model, a survey containing 125 questions was developed using a Likert-type scale. This questionnaire was sent to the 7,000 privately-owned, small- to medium-sized companies in the Chuo ward of Tokyo, Japan. The firms included both old companies and those in operation for less than 100 years. The response rate was 19 percent: Eighty-nine percent of the companies responding were less than 100 years old and 11 percent had over 100 years of continuous operationⁱⁱⁱ. The results were analyzed to see if the old companies did, indeed, engage in the practices described in the model. The survey responses of old companies were then compared to those of companies that were younger than 100 years to identify which practices were unique. To test the framework for its cultural relevance outside Japan, the same survey was translated into English and sent to 282 U.S. companies over 100 years old. Responses were received from 61 firms for a response rate of 21.6 percent.

LONGEVITY PRACTICES OF OLD COMPANIES

Old Japanese companies confirmed the importance of all the practices described in the theoretical model. Many practices of companies over 100 years old were also significantly different from those of younger firms. Following are those items where responses of old companies were statistically significant when compared to those of young firms. Results are based on a 5-point scale; all items listed are significant at the 0.05 level.

Table 1: Significant corporate identity and culture practices of old companies

	Old Firms	Young Firms
Mission reflects values of the company since the beginning	4.31	4.01
Commitment to manage the business according to the mission	4.50	4.30
Our mission is documented in writing	4.17	3.78
Top managers explain the mission to employees	4.16	3.92
We share our mission with customers and business partners	3.69	3.29
Intent to manage according to the mission into the future	4.41	3.92
Great value is placed on our brand	4.09	3.45
We ensure consistency in the use of our brand	3.58	3.17
We minimize debt to finance our business	3.94	3.78

The mere existence of a corporate credo or mission statement was not a unique characteristic of old companies. Though 87.9 percent of the old companies surveyed had such a credo, so did 85.4 percent of younger firms. It is in the area of utilization of their mission where the old firms were distinct from other companies. The century-old companies' responses were statistically significant in every aspect of credo utilization, putting more emphasis on actually managing according to the credo. The old firms were more intentional about sharing their mission with others, teaching it to employees as well as discussing it with customers and other business partners, and they expressed a strong intent to carry on their mission into the future. Old companies' emphasis on corporate culture was also seen in the importance they place on their brand identity and their belief in the need for consistency in the use of their brand in products, services, and facilities. One common cultural behavior identified is that old companies are less likely to depend on borrowing as a way of financing their business.

There were a number of statistically-significant factors that differentiated old companies from younger ones in terms of how they managed their core strengths. Though all the companies were fairly similar in their belief about how difficult their products or services were to copy and that they have a strong appeal other than price, the older firms indicated they pursue their unique characteristics even into the fine details of their product. Further, the older firms were significantly more likely to convey their corporate knowledge and unique product story as part of the sales process. Another area where management of core strengths was different among the older companies was how they built on their strengths, believing there were some things that should not change. Though the young companies were just as likely as old firms to continuously update their business operations, old companies were significantly more likely to take longer when introducing change.

Table 2: Significant core strengths management practices of old companies

	Old Firms	Young Firms
We pursue our uniqueness into the fine details of our products	3.80	3.67
We have accumulated knowledge regarding raw and processed materials	4.00	3.68
We convey our corporate history and product story in the sales process	3.72	3.18
We provide information to bring out the merits of our products and materials	3.97	3.58
We have some product qualities that should not change	4.03	3.85
We have some raw and processed materials that should not change	3.96	3.55
We have some methods of production and sales that should not change	3.60	3.41
We take a long time to introduce major change	3.75	3.46

Many of the practices relating to relationships with business partners in the longevity model were also believed to be important by younger companies. However, the old companies are significantly more likely than younger firms to make an effort to see that their products are used in the best way. Further, the older firms are more likely than the younger ones to see their relationships with customers as a learning opportunity. Though both groups indicated the importance of building long-term relationships with suppliers, older firms were significantly more likely to share information with their suppliers.

Table 3: Significant business relationship management practices of old companies

	Old Firms	Young Firms
We make every effort to ensure our products are used in the best way	4.09	3.86
We advertise our corporate history and product story	3.35	2.78
We utilize every opportunity to learn from the knowledge of our customers	4.06	3.88
We exchange information about production and sales with our suppliers	4.08	3.85
We exchange information about products and services with our suppliers	4.10	3.88
We exchange information about customers and markets with our suppliers	4.03	3.80

In the area of employee management practices, there was not a significant difference in either desire to retain employees for the long term or in many of the employee relations practices used. The only significant difference between old and young companies in the area of training and development was that the older firms were far more likely to teach employees about company history and about customers. There was, however, a significant difference in the area of leadership development: The old companies scored significantly higher than younger firms on every question pertaining to development of future company leadership. Interestingly, 53.6 percent of the older firms said they had already selected the next leader of their company, compared with only 37.9 percent of the younger firms.

Table 4: Significant employee relations practices of old companies

	Old Firms	Young Firms
We teach employees our corporate history and traditions	4.16	3.59
We have a basic policies for selecting new leaders	3.08	2.27
We train and develop our future leaders internally	3.28	2.70
Key leaders have outside experiences before coming to our company	3.31	2.48
Future leaders should experience operational jobs within our company	3.89	3.44
We have a systematic career plan in place to develop future leaders	3.47	2.87
Future leaders develop their own networks within and outside the company	3.68	3.23
Future leaders are educated on company policies, skills, technologies, and traditions that should be observed	3.94	3.30
Once selected, a leader is expected to think for him/herself	3.16	2.83

Old companies scored significantly higher than young firms on every question relating to building relationships within their communities. Whether it was participating in business organizations (such as the Chamber of Commerce) or social activities, building personal connections with people in other industries or being involved in projects to promote their local community, the old firms are significantly more active community members. This factor clearly differentiates old companies from younger firms.

Table 5: Significant community relationship practices of old companies

	Old Firms	Young Firms
We actively participate in community organizations outside our industry	3.43	2.86
We build personal connections with people in other local industries	3.65	3.41
We receive useful advice from people outside our company	3.55	3.30
Our business benefits from the reputation of our local community	3.28	2.58
We participate in activities of our local area as a community member	3.48	2.59
We are involved in projects promoting the value of our local community	3.17	2.30

TEST OF LONGEVITY FACTORS ON OLD U.S. COMPANIES

The results of the study of Japanese companies confirmed the practices of old companies described in each factor of the theoretical model and also showed that many of these practices were not reflected in younger organizations, thus confirming the first and second hypotheses. When this same survey was sent to 100-year-old companies in the United States, all but one of the practices in the longevity model were confirmed, with U.S. companies indicating many items as being more important than did old Japanese firms. The practice not confirmed by U.S. companies was that of having a systematic career plan in place to develop future leaders, which was a significant longevity factor in Japan when compared to young company practices. It should be noted, however, that U.S. companies did agree on the importance of having basic policies in place for selecting leaders.

Items shown in bold face in the following tables comparing old U.S. and Japanese companies are those that were significant when comparing old companies' responses to those of young companies.

Table 6: Corporate identity and culture longevity practices

<i>U.S. companies scored these items significantly higher than Japanese firms</i>	<i>Japan</i>	<i>U.S.</i>
Our mission is documented in writing	4.17	4.52
We share our mission with customers and business partners	3.69	4.20
We place great value on our brand	4.09	4.66
We ensure consistency in the use of our brand	3.58	4.30
<i>Japanese companies scored this item significantly higher than U.S. firms</i>		
Mission reflects values of the company since the beginning	4.31	3.90
<i>There was no significant difference in responses to the following items</i>		
Commitment to managing the business based on the mission	4.50	4.67
Top managers explain the mission to employees	4.17	4.22
Intent to manage according to the mission into the future	4.41	4.43
We focus on our main business and do not diversify	3.46	3.52
We have unique and lasting products/services	4.13	4.11
We attach more importance to profit than sales volume	3.80	3.77
We minimize debt to finance our business	3.94	4.02

Table 7: Core strengths longevity practices

<i>U.S. companies scored significantly higher than Japanese firms</i>	<i>Japan</i>	<i>U.S.</i>
We convey our corporate history and product story in the sales process	3.72	4.09
We work on improving our operations even in the best of times	3.91	4.45
We maintain our quality of customer service even during business downturns	4.28	4.58
<i>Japanese companies scored significantly higher than U.S. firms</i>		
Our products and services are difficult to copy	3.47	3.05
We have some raw and processed materials that should not change	3.96	3.47
We have some methods of production or sales that should not change	3.60	3.29
<i>There was no significant difference in responses to these Core Strengths items</i>	<i>Japan</i>	<i>U.S.</i>
Our products/services have a strong appeal other than price	3.92	4.05
We pursue our uniqueness into the fine details of our products	3.80	3.67
We have accumulated knowledge regarding raw and processed materials	4.00	3.75
We provide information to bring out the merits of products and materials	3.97	3.73
We have unique and lasting products/services	3.46	3.70

We have some product qualities that should not change	4.03	4.00
We take a long time to introduce major change	3.75	3.74
We continuously change our business/operations to adapt to changing times	3.85	3.70

Table 8: Business relationship longevity practices

<i>U.S. companies scored significantly higher than Japanese firms</i>	<i>Japan</i>	<i>U.S.</i>
We work hard to gain an understanding of our key customers	4.20	4.48
We view customer service as an important opportunity to talk with customers	4.32	4.52
We build long relationships with customers through after sales services	4.13	4.40
We make every effort to ensure our products are used in the best way	4.09	4.32
We advertise our corporate history and product story	3.35	3.97
We utilize every opportunity to learn from the knowledge of our customers	4.06	4.28
We provide customers useful information for their learning	3.62	4.09
We respond quickly to customer complaints and grievances	4.04	4.62
We work at developing new customers for the future	3.47	4.35
We have maintained long relationships with our suppliers	3.45	4.58
We provide necessary information about our business to suppliers	3.52	3.89
<i>Japanese companies scored significantly higher than U.S. firms</i>		
We collect information on customers and market needs other than through direct contacts with customers	4.05	3.63
We exchange information about production and sales with our suppliers	4.08	3.48
We exchange information about products and services with our suppliers	4.10	3.56
We exchange information about customers and markets with our suppliers	4.03	3.31
<i>There was no significant difference in responses to the following item</i>		
We understand the corporate policy and business strategy of our suppliers	3.39	3.36

Table 9: Employee relations longevity practices

<i>U.S. companies scored significantly higher than Japanese firms</i>	<i>Japan</i>	<i>U.S.</i>
We emphasize on-the-job training for employees	3.96	4.34
We tell employees the skills/qualifications needed for a future with the company	3.58	3.89
We make every effort to retain our employees	3.70	4.48
We have basic policies for selecting new leaders	3.08	3.38
We train and develop our future leaders internally	3.28	3.95
Once selected, a leader is expected to think for him/herself	3.16	3.97
<i>Japanese companies scored significantly higher than U.S. firms</i>		
Future leaders should experience operational jobs within our company	3.89	3.17
We have a systematic career plan in place to develop future leaders	3.47	2.89
<i>There was no significant difference in responses to the following items</i>		
We tell employees the skills that are necessary to continue our business	3.93	4.08
We assign employees based on company core technologies and their skills	3.81	3.95
We teach employees our corporate history and traditions	4.16	4.00
We train our employees considering their needs and individual desires	3.70	3.83
We make use of education opportunities outside our company	3.49	3.71
Key leaders have outside experiences before coming to our company	3.31	3.38
Future leaders develop their own networks within and outside the company	3.68	3.52
Future leaders are specifically educated about company policies, skills/technologies, and traditions that should be observed	3.94	3.86

Table 10: Community relationship longevity practices

<i>U.S. companies scored significantly higher than Japanese firms</i>	<i>Japan</i>	<i>U.S.</i>
We participate in community organizations outside our industry	3.43	3.92
We build personal connections with people in other local industries	3.65	4.00
We participate in activities of our local area as a community member	3.48	4.18

We are involved in projects for promoting our local community	3.17	4.06
<i>There was no significant difference in responses to the following item</i>		
We receive useful advice from people outside our company	3.55	3.78

CONCLUSIONS AND DISCUSSION

This research confirms hypothesis #1, that there are common practices engaged in by companies that have survived for over 100 years, and hypothesis #2, that many of these practices are significantly different from those engaged in by young companies. Analyzing the responses of old U.S. companies' compared to those in Japan, hypotheses #3 was also confirmed and it is evident that the practices identified in the longevity model are not culturally specific to Japan. In fact, U.S. firms reported being significantly more likely to employ many of the practices than were their Japanese counterparts.

Many of the significant behaviors exhibited by the old companies have to do with building long-term relationships with their constituents – with employees, with business partners, and with their communities. This attitude of a business having obligations beyond making a financial return for owners or investors is reflective of developments in stakeholder theory, described as “obtaining a competitive advantage through the development of close-knit ties with a broad range of internal and external constituencies” (Heugens, van den Bosch & van Riel, 2002). The old companies practice a mutual learning form of stakeholder theory in which a company utilizes the interdependency of the firm and its stakeholders to understand each other's needs, combine resources, and find solutions to create value for all parties involved. This concept of shared value has recently been described as the next evolution of capitalism (Mackey & Sisodia, 2013; Porter & Kramer, 2011). Companies that have thrived for over 100 years have been successfully practicing this form of capitalism that creates shared value. In addition to having a clear sense of purpose for the firm and a way of building on core competencies in a way that carefully balances tradition and change, this ability to involve a wide group of constituents in caring about the success of the firm seems to have a very real effect on the firm's ability to survive.

Gary Hamel says that companies can die prematurely to the detriment of society at large (2009). His point is that time enables complexity and that organizations grow and prosper by turning simple ideas into complex systems. If this process is prematurely interrupted, society may lose the benefit of the original idea – as well as others it may have engendered. This isn't an argument to insulate a company from failure, he says, but rather a reason to “imbue organizations with the capacity to dynamically adjust their strategies as they pursue a long-term mission.” de Gues says in *The Living Company* that work lives, communities, and economies are all affected, even devastated, by premature corporate deaths (1997). And it is not just the owners or investors in a company that profit from an organization's survival, but employees, customers, suppliers, and communities all benefit as well. By identifying, monitoring and acting on the right factors, the average human life span has increased over 80 percent in just one century (Hewitt Quarterly, 2004). Humans have learned what behaviors increase longevity: a balanced diet, regular exercise, monitoring blood pressure and cholesterol, etc. If the life expectancy of a person can increase through the identification of longevity factors, perhaps a company's can as well. A necessary first step is for companies to decide they *want* to be in business for a long time. If young companies today decide this is a desirable goal, they should consider the longevity practices described in this paper. Though these practices correlate with longevity, they are not proven to be causal. Companies still need good strategies and leaders need to make good decisions if a company is to survive for the long run. The practices described in the longevity model are, nevertheless, behaviors that can enhance the work life of people in the firm and gain loyalty to a company from employees, customers, suppliers, and their local communities – as well as increase the probability of a firm's long-term success.

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ENDNOTES

ⁱ Japanese companies founded prior to 1000: Nishiyama Onsen Keiunkan (705), Sennen No Yu Koman (717), Houshi Ryokan (718), Tech Kaihatsu (760), Genda Shigyo (771), Tanaka Imiyabi (885), Nakamura Shaji (970).

ⁱⁱ The author’s data base of 1,186 U.S. companies is an accurate documentation of public companies over 100 years old, but there are many small, privately-owned businesses yet to be identified.

ⁱⁱⁱ The industry breakdown of the companies surveyed was 37 percent Wholesale, 34 percent Manufacturing, 12 percent Retail, 12 percent Construction, and 5 percent Services.

THE EFFECTS OF INDIVIDUAL AND DEMOGRAPHICAL CHARACTERISTICS ON ORGANIZATIONAL COMMITMENT: EVIDENCE FROM ACADEMIC AND ADMINISTRATIVE STAFF OF ANKARA UNIVERSITY TÖMER

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ABSTRACT

The organizational commitment of employees is an important issue, because it contributes both to the organizational aims and employees' job satisfaction. However, the level of this commitment may vary from person to person. This study examines the effect of individual-demographic characteristics on organizational commitment. To do so, age, gender, education level, length of employment, being an academic or administrative staff, whether working in a different institution before or not, being an employee that is civil servant or on contract are used as variables that possibly affect organizational commitment. This study is conducted on Ankara University Center for Applied Turkish and Foreign Languages Research (TÖMER), which is an institution belonging to a state university in Turkey. The research consists of 339 employees that do not work as a manager in TÖMER. Independent two and k-sample tests are used. Results indicate that employees' organizational commitment level does not show significant difference based on genders, education levels, length of employment, and being an employee that is being a civil servant or work on contract. However, age groups and employment status show significant difference according to organizational commitment level.

Keywords: Organizational commitment, individual and demographical factors, Ankara University TÖMER

INTRODUCTION

Even though managers have the authority, which is provided them by the contracts or laws, to give orders to their employees, it does not always mean that this authority guarantees the desire or efficiency of their employees. In this case, besides this authority, managers may need to encourage their employees, since the fundamental role of managing is to create an organization that struggle to reach its goals. These goals that are defined by the managerial activities will be achieved through the employees in the organization, and employees may need to show extra work or even some sacrifices to obtain the organizational goals. Managers have to work to develop and continue the desire to make these sacrifices in their employees. This desire can only be created if the organization is built on some common values.

Organizational commitment has come into the picture at the creation of these common values. According to Mowday et al. (1979; 1982), the concept of organizational commitment can be defined as “linking

the identity of the individual to the organization, and the integrity and the accordance between the individual and organizational goals". Robbins (1998), on the other hand, notes "the willing to maintain organizational membership" as well as the "integrity or congruency of employee with the organizational goals". The "accordance and integrity" attitude inside the commitment concept creates a link between organization and employees and gathers employees around common goals and values. By doing so, it is possible to construct "a family" that believes in, defends and makes an effort to realize organizational goals. However, this family does not only work for the realization of organizational goals, but also contribute to the other "family members". It is well known the importance of job satisfaction when the average time that a person spends for her job and the job satisfaction can only be possible when job characteristics and employee expectations are in a harmony. The positive impacts of job satisfaction are visible on the employee's mental and physical health.

This study aims to investigate the level of organizational commitment as a measure of the existence of these common values in Ankara University Center for Applied Turkish and Foreign Languages Research (TÖMER), one of the biggest and most important language centers in Turkey. Based on literature, age, gender, education level, length of employment, being an academic or administrative staff, being an employee that is being a civil servant or work on contract are used as variables that possibly affect organizational commitment level in TÖMER.

THE CONCEPT OF ORGANIZATIONAL COMMITMENT

There have been many different descriptions of commitment. Commitment is the process of integration of the goals of organization and individuals over time or their being harmonized. (Hall et al., 1970) According to another description, it is the level of internalization of organizational characteristics by individuals and the level of adapting to organizational perspective. (O'Reilly and Chatman, 1986). Gaertner and Nollen (1989) described the commitment as individual's will of organizational participation and integration with the goals and assets of organization without expecting any monetary gain. DeCotiss and Summers (1987) mention of four common characteristics of individuals who are organizationally committed. These are: embracing the goals and values of the organization, acting in accordance with these and putting effort to materialize the organizational goals rather than their own goals by participating in the organization for many years to this end. In a similar way, Nijhof et al. (1998) list these common characteristics as embracing the goals and assets of the organization, having a strong faith in these, putting much more effort than expected and having a strong will to stay in the organization. Last, Hunt and Morgan (1994) state that organizational commitment include these factors: individual's faith in the goals and assets of the organization, individual's putting effort to attain the organizational goals and individual's keeping being a member of the organization.

Among these various different studies, this study has chosen to use the classification of Allen and Meyer (1990). According to their classification, organizational commitment has taken into account under three headings, namely affective, continuance and normative commitment. Affective commitment includes individual's identifying with the organization and attaching to the organization emotionally. Continuance commitment depends on employee's economic interests. This one is the state of employee's staying in the organization as it is thought leaving the organization would cost highly and there is no other option. Normative commitment is the state of employee's perceiving staying in the organization as a responsibility and thinking that fidelity is a virtue. The first commitment exists with will, the second one with need and the third one with obligation. Employee's commitment to the organization may contribute to the unity under the common goals and assets of the organization, attainment of the organizational goals, increasing efficiency, individual's identifying themselves with the organization, employee's accepting the organizational change, decrease in labor turnover, work satisfaction and decrease in discontinuity.

Numerous studies examine the factors that affect organizational commitment. Schwenk (1986) classifies these factors under four groups. These are *past working experience of the employee*, *organizational factors*, *situational factors*, and *demographical factors*. A similar classification for these factors can be found in the study of Mowday et al (1979), namely *working experience*, *job characteristics*, *structural factors* and *individual factors*. According to Luthans et al. (1987), demographic factors include age, working experience, education level, gender and civil status. The effects of individual and demographical characteristics on organizational commitment will be examined in this study.

THE DEMOGRAPHICAL FACTORS THAT IMPACT THE ORGANIZATIONAL COMMITMENT

This section is about demographic factors influencing organizational commitment. These factors respectively are age, serving term, education and gender. Ages of individuals may shape their approaches to their jobs, perceptions, will and expectations. Angle and Perry (1981) underline that the chance of old people to do a different job decreases since it is harder for them to find a job and improve themselves in a different field as they get older. For Cohen (1993), as employees' serving terms increase and as their investments and gains from these investments enhance during their serving time in the organization, employees' commitment increases with the aim of protecting these gains, because preferring another institution may cause all of the efforts put to be in vein. Losses in such cases may be much more compared to their young colleagues as well. On the other hand, Ketchand and Strawser (1998) state that organizational commitment of old employees are higher, as they are more satisfied with their jobs and their current status in the organization. Moreover, old employees may be much more satisfied with their jobs, since they have more self-confidence based on their experiences. When we adopt the young perspective to this issue the situation may be described as following: Hrebiniak and Alutto (1972) state that young employees have less organizational commitment, when they do not have much investment based on their shorter serving terms. A similar assessment argues that young employees with low skill have less organizational commitment, as they invest less to their organization (Sheldon, 1971). Thus, it is argued that young employees with low commitment are more inclined to quit their jobs (Blau and Lunz, 1998).

Allen and Meyer (1993) argue that the relation between age and organizational commitment should be evaluated for the three different organizational commitments which were determined by them independently. According to the authors, while affective commitment is directly proportional with the employees' ages, continuance commitment does not have any relation with their ages.

The relation between age and organizational commitment is also observed for the relation between serving term in the organization and organizational commitment. Any individual who spends time and puts effort in the organization that s/he works may not want to shift to another place, as s/he thinks quitting the order that s/he is familiar with would waste all of her/his gains. This approach may increase employee's commitment to the organization. Cohen (1993) underlines that gains of employees increase due to their investments into the organization as their serving terms increase, and thus the ones who do not want to lose these investments feel more committed to their job. For Morrow (1983), personal investments of employees are one of the most important factors which attach them to their organizations. Such factors as the status, seniority, rise in salaries etc. which are achieved over time increase the cost of quitting job and thus organizational commitment. There are some researches showing the positive relation between organizational commitment and seniority. (Angle and Perry, 1981; Obeng and Ugboro, 2003). Even if there are serious clues that the serving time in the organization increases the organizational commitment, whether an employee was granted with seniority may be one of the factors which influence this commitment. Allen and Meyer (1993) argue that age and seniority have different influences on different kinds of commitment. According to them, even if age and seniority are the factors which influence each other, age is mostly related to affective commitment; seniority is related to continuance commitment. Obeng and Ugboro (2003) argue that as the serving term at one status extends; affective and normative commitment decrease.

The level or education of individuals is another demographic factor used to explain their organizational commitment. Most of the studies carried out showed that the level of education of employees has an inverse relation with organizational commitment. (Angle and Perry, 1981; Luthans et al., 1987; Mathieu and Zajac, 1990). Such reason to this relation as the fact that the higher expectations of employees from their jobs are the higher level of education they have compared to the ones with lower level of education is shown. This view is supported by the different and many more opportunities of the more educated employees. (Angle and Perry, 1981). Mowday et al. (1982) argue that the individuals with higher level of education have expectations which cannot be met by the organization. On the other hand, it is stated that the individuals with better level of education can find a job easier, and thus adapt themselves to their current status less (Modway et al., 1974; Abdullah and Shaw, 1999). Keleş (2006) points out to the studies on the increasing chances of the individuals with higher level of education to take initiative, to take more responsibility and to decide more independently

and to implement these decisions. Uygur (2004) argues that the individuals with adequate education on their jobs can adapt themselves easily to various organizations other than the one they work at (Çolakoğlu et al., 2009). Also, Hrebiniak and Alutto (1972) indicate that the individuals who do not want to have education at a higher level have more commitment compared to the ones who have education plans or clear decisions about their educations. There are also studies showing that the relation between organizational commitment and education level is not so well-defined (Al-Fadlı 1997; Gilbert and Ivancevich, 1999).

Contrary to above mentioned findings, it is seen that there is not any strong relation between gender and organizational commitment. Though there are some arguments maintaining that both men and women are more attached to their organizations, there are also some other studies which could not prove this relation (Mathieu and Zajac, 1990). Hrebiniak and Alutto (1972) demonstrate that gender is an important factor influencing organizational commitment. Thorntwaite (1993) concluded that gender factor has a significant relation with fidelity to the organization, will to work for the unity of the organization and the responsibility taken for this organization. Aven et al. (1993) maintain that men are more committed to their organizations as the number of the men working at higher status is more, and men are paid more than women even though both of the genders do the same work. As women are focused on their responsibilities as mothers and wives in the society more, they feel less attached to their organizations compared to men. There are some other studies maintaining women are more attached to their organizations compared to men. Mowday et al. (1982) argue that women have more organizational commitment compared to men. According to them, the reason is that women get more attached to their jobs since they have many more obstacles against achieving their current status in the organization than men. Angle and Perry (1981) maintain that women are more attached to their organizations compared to men as they do not like changing their organizations and jobs. Aven et al. (1993) argue that women are more attached to their organizations, but this is generally continuance commitment and gender and affective commitment are not related.

METHODOLOGY

TÖMER is a research and applied institution that provides education to thousands of students on fifteen different languages, particularly in Turkish and English. A total of 276 academic and 154 administrative staff work for this center in 8 different cities with 11 different branches. One of the most distinct characteristics of this center is the 31 year-experience in the education of languages, particularly Turkish, with qualified academic staff within the body of an important state university. Data is collected by the aid of questionnaires. These questionnaires were applied to the employees working in the headquarters and branches of TÖMER. The research consists of 339 employees that do not work as a manager in TÖMER. 233 of these employees are academic staff, while 106 employees work as administrative staff. The response rate for the questionnaire is 73%. To investigate whether individual-demographic characteristics of academic and administrative staff affect the organizational commitment, following hypotheses are established. Independent two and k-sample tests are used to examine these hypotheses.

Hypothesis 1: There is no difference between people at different ages with respect to their commitment levels.

Hypothesis 2: There is no difference between the people who have different serving terms with respect to their levels.

Hypothesis 3: There is no difference between employees with different levels of education with respect to their commitment levels.

Hypothesis 4: There is no difference between men and women with respect to their commitment levels.

Hypothesis 5: There is no difference between academic and administrative staff with respect to their commitment levels.

Hypothesis 6: There is no difference between civil servant and contracted academic staff with respect to their commitment levels.

Hypothesis 7: There is no difference between civil servant academic and administrative staff with respect to their commitment levels.

Hypothesis 8: There is no difference between contracted academic and administrative staff with respect to their commitment levels.

In the questionnaire, there are 17 questions in total which include 11 questions evaluating organizational commitment and 6 questions about personal-demographic characteristics. Organizational commitment is rated with the help of 5 point Likert-type scale as "1: Strongly Disagree", "5: Strongly Agree". The reliability of organizational commitment questions was determined with Cronbach's Alpha coefficient. Cronbach's Alpha value was found to be 0.941 for all questions. The questionnaire was found to be highly reliable, and it was found that all questions could be included in the evaluation. In addition, factor analysis confirmed that 11 questions used for commitment scale could be valid for a single factor after the compatibility of data to factor analysis was tested.

64% of the staff who participated in the questionnaire is women and 36% of them are men. 85% of the participants have university degree or a higher degree of education. The ages of the participants are between 21 and 60 and the general average of age is 36. 51% of the academic staff who participated in the questionnaire are contracted academic staff, 28% of them are administrative staff, 17% of them civil servant academic staff and 4% temporary worker. 35% of the participants of the questionnaire have served at TÖMER for more than 15 years, 32% of them have served for between 1-5 years. 66% of the participants of the questionnaire stated that they worked at a different place before TÖMER. 80% of the serving terms of these people at their prior work places are less than 5 years.

ANALYSES AND FINDINGS

Parametric and non-parametric tests are carried out after determining if the range of organizational commitment point was normal at the first stage. Commitment levels are evaluated within the 100 points range. The normality evaluation are tested with Kolmogorov-Smirnov test and $P=0.104>0.05$ was found. As the organizational commitment levels are within a normal range, parametric statistical tests are utilized for differential control.

One way analysis of variance (ANOVA) is utilized to show if there is a difference between organizational commitments according to their ages, after grouping the ages. The ages are grouped in three: 21-34, 35-44, 45+ The results from ANOVA is shown in Table 1. According to this table, there is statistically significant difference between employees at different age groups with respect to organizational commitment levels. The difference between at least two of the groups is statistically significant. The differing group was analysed with Tukey test, which is one of the multiple comparison methods, as the variances are equal. There is a statistically significant difference between 21-34 age group and 35-44 age group with respect to their organizational commitment levels. No other difference with other paired comparison can be detected. There is a difference between the averages of age of 21-34 and 35-44 age groups. The commitment of 21-34 age group is lower, but the same result was not found to be valid for 45+ age group.

The influence of serving terms of employees on organizational commitment is studied. In the questionnaire, serving terms are grouped as less than 1 year, 1-5 years, 6-10 years, 11-15 years and 15+. The ANOVA results related to this is shown in Table 3. Results show that no significant difference with respect to their organizational commitment can be found, when the serving terms of the employees are taken into consideration.

Whether there is a difference between organizational commitment levels with respect to level of education is studied with ANOVA. Within the scope of the study, levels of education are grouped as primary school, secondary school, high school, university, master and doctorate in the questionnaire. As the number of the staff who has degrees of primary school and doctorate is less than 5, the groups of primary school and secondary school; and the groups of master and doctorate were united and ANOVA was utilized for 3 groups in total. The test results are shown in Table 4. This table indicates that no significant difference at the 5% level between the employees with different levels of education can be found.

Whether there is any difference in organizational commitment with respect to gender factor is studied with t test, and the results are shown in Table 5. There is not any statistical difference between women and men with respect to organizational commitment levels with 95% reliability.

The staff at TÖMER is divided into two groups which are academic and administrative staff; and academic staff works at two different status which are being contracted and civil servant. All administrative staff, on the other hand, is employed as civil servants. Within the scope of the study, the possible influence of being whether academic or administrative staff and being a contracted staff or civil servant was studied with t test. Results are shown respectively in Table 6 and 7. From Table 6, it is clearly seen that there is not a statistically significant difference at the 5% level between academic and administrative staff with respect to their organizational commitment levels. According to Table 7, there is not any statistical difference between their organizational difference with respect to the status of academic staff to be employed as civil servant or contracted. Table 8 shows that there is a significant difference between the commitment levels of administrative and academic staff that work as a civil servant. Table 9, however, points out that this difference becomes insignificant for the administrative staff and contracted academic staff.

Number of Table	Results of ANOVA	Between Groups (df)	Within Groups (df)	Total (df)	F	Sig.
Table 1	The ANOVA Results for Differences in Commitment Points according to Age Groups	2	178	180	6.081	0.003
Table 3	The ANOVA Results of Difference Between Commitment Points with respect to Serving Terms	4	229	233	1.357	0.250
Table 4	ANOVA Results for Differences Between Commitment Points with respect to Levels of Education	3	235	238	2.002	0.114

Number of Table	Results of t test *	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Table 5	t Test Results for the Differences between Commitment Points With Respect to Sex	-0.896	230	0.371	-2.995	3.341
Table 6	t Test Results for the Differences between Academic and Administrative Staff's Commitment Points	1.114	241	0.267	3.674	3.299
Table 7	t Test Results for the Differences between Civil Servant and Contracted Academic Staff's Commitment Points	1.566	163	0.119	6.630	4.234
Table 8	t Test Results for the Differences between Academic (Civil Servant) and Administrative Staff's Commitment Points	2.297	109	0.024	11.108	4.836
Table 9	t Test Results for the Differences between Academic (Work on Contract) and Administrative Staff's Commitment Points	1.256	190	0.211	4.478	3.565

* Levene's test is conducted to understand whether the variances are equal. Findings cannot reject the null hypothesis of equality.

CONCLUSION

Organizational commitment contributes to the expectations of both the organization itself and the employees. This is why; determining the individual and demographic factors that are affective on commitment levels of TÖMER employees may offer clues to the TÖMER managers and shape their decisions. However, TÖMER has structural issues. These issues are driven by the nature of the employment status. That is, even though they do the same job, academic staff works under different wage, employee rights and working conditions depending on whether they are civil servants (30% of the employees) or they work under a fixed term employment contract (70%).

This situation may harm the commitment and job satisfaction of academic staff that works on contract, since they cannot have the same employee rights. The first expectation was to observe this situation in the organizational commitment scores. Interestingly, findings cannot show a significant difference between two groups. In fact, finding no significant difference is food for thought. It actually points out a low level of organizational commitment for academic staff that works as a civil servant although they have better employment rights. Enhancing personal rights of contracted academic staff may be a motivator for them. However, for those who work as a civil servant may perceive this situation as hygiene factors.

It was primarily expected that there is a significant difference between the organizational commitment levels of academic and administrative, because the former may find the work important and meaningful, while the latter mostly do routine work. Finding no significant difference between them may be explained as the dominance of contracted employees in the academic staff group. Indeed, when the comparison is made only for civil servant academic and civil servant administrative staff, a significant difference between commitment levels of these two groups can be found as expected. It is found that academic staff that work as a civil servant has higher level of commitment. Comparing contracted academic staff and civil servant administrative staff yields no

significant difference based on their commitment levels, which could be expectable when considering the low level of personal rights of contracted staff.

Other results indicate that employees' organizational commitment level does not show significant difference based on genders, education levels, length of employment. However, age groups demonstrate significant difference according to the affective and continuance commitment types. It is found that younger employees (21-34) have lower affective and continuance commitment levels compared to older employees (35-44). These findings about length of employment and education level are not consistent with the previous literature. This situation may be explained by the limited opportunities to promote, although higher lengths of employment are the case. Comparing the group with university degree or a higher education level with other groups that have lower levels of education may prevent a significant finding, because 85% of employees are included in the higher education group. Consistent with the previous literature, a significant relation is found between age and commitment level; and no relation can be detected between gender and commitment.

One of the most important elements of service quality in the education sector is the academic staff that gives this service and the administrative staff that supports. The low level of organizational commitment that employees of TÖMER have may damage the years of experience and customer based brand equity that TÖMER have built on in 30 years time. Hence, it is crucial to develop policies by top managers that contribute to the commitment of academic and administrative staff for the institution's success and employees' job satisfaction. This situation becomes especially important for the contracted academic staff which constitutes of $\frac{3}{4}$ of the total academic staff, but does not work under equal conditions with their civil servant colleagues.

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RISK MANAGEMENT – FUNDAMENTAL QUESTIONS

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ABSTRACT

Risk has always been with us and through custom the word risk became a suitcase word that requires the context to take care of the meaning, but the International Standards Organization's definition of risk in that "Risk is the effect of uncertainty on objectives". Implied but not stated in the management of risk is that rational humans and thus organizations require that the future be predicted and forecasted. Also assumed but never discussed in risk management theory is the time-event-consequence relationship. The author suggests that we need to reflect on our assumptions and proposes that Business Continuity Management can serve as a tool in responding to the event and consequences that arises from a risk.

Keywords: Objective, uncertainty, event, effect, heuristics, biasedness, business continuity management

INTRODUCTION

Risk has always been with us; it is part of every human activity. It does not matter what your discipline, academic background, economic model, or industry – you're personal or a professional environment, you are exposed to "risk" and this risk needs to be managed. With the ENRON, WorldCom and Tyco disasters and the fall from grace of accounting firms (Arthur Anderson) the idea of managing your risks attain management status, something that management consciously needs to do and be held accountable for. Through legislation in the USA (Sarbanes Oxley Act - 2002), COSO (Company of Sponsoring Organisations - 2004) provided managers with the first methodological approach to manage organisational risk. The COSO risk management framework was followed by "The Orange Book" in the UK (2004), AS/NZS 4360 (2004) in Australia and New Zealand and the latest international standard ISO 31000 (ISO 31000, 2009), that set best practices in terms of risk management. This led to Taleb's statement that "Organizations have created this "strange position" of risk manager" (Taleb, 2004, p.40); but the appointment of risk managers and the "management" of risk did not prevent the global economic disaster of 2008 when in one day banks destroyed more value than what was generated in the history of banking (Taleb, 2013).

ISO 31000 defines Risk as "The effect of uncertainty on objectives". (2009, p. 1). The unstated premise of risk management then is the focus to a great extent on the concept regarding certainty in the prediction and achievement of organisational objectives through the management tasks of planning, organizing, leading and control. Yogi Berra (Orrell, 2012) captures these two concepts of prediction and future in the statement that "prediction is very difficult, especially about the future". This contradicts with the management tasks of planning, organizing leading and control where the unstated assumption is that we (managers) can predict the future (and measure it) in setting and achieving organisational objectives. We as managers infer that the future is representative of the past and thus predictable; that the future (of which we have no experience) resemble the past of which we have experience. In his "Treatise on Human Nature" (1739) Hume states "That even after the observation a constant conjunction of objects, we have no reason to draw any inference concerning any object beyond those which we have had experience" (Ayer, 1980, p. 82). Vickers (2014) paraphrases Hume that "Instances of which we have had no experience resembles those of which we have had experiences". These

statement concerns not only scientific research but also the practice of management and in this instance risk management.

Contributing to the phenomena that the future is predictable and can be managed are the two concepts of scientific research in a social environment and human nature. The social scientist tries to emulate their natural science peers in assuming causality according to Newtonian laws and principles. Eikland (2008, p. 25) summarises the three types of general theory. Firstly, covering laws and principles adhere strictly to Newtonian principles. They are general assumptions used to explain and predict future events. One counter instance is sufficient to falsify these theories. Secondly there are statistical generalisations. Statistical generalisations are used to describe certain traits and characteristics of a certain population. Counter instances does not falsify these theories, they are only treated as unusual cases or deviations from mean. The third and last type of general theory is standards. Standards are fixed points that practioners use in a certain environment, to perform a certain activity or group of activities. Standards cannot be generalised and the situation determines its application. A standard can be applicable in one context but not in another context (thus falsifying the standard). The unstated assumption in the three types of general theory is that man (human) is a rational being that takes unbiased and un-mediated decisions. It ignores human nature and the pivotal role of human nature in decision-making. Rational man does not exist, as humans are a collection of their experiences, emotions and desires. Any decision a human takes is influenced by their experiences, emotions and desires. Bertrand Russell (1947) confirms this when he made the statement “Man is a rational animal – so at least I have been told. Throughout a long life, I have looked diligently for evidence in favour of this statement,..”. (p.69). The status of human nature and human objectivity in decision making is adequately stated by Kahneman (2014) in his statement “Continuously amazed by the human mind”.

This paper will address critical management issues regarding the concept of risk, the predictability (Newtonian thinking) versus the unpredictability of the future and the role of uncertainty, thus addressing the question of how can organisations and risk managers respond to these uncertainties in an unpredictable environment and future. Firstly, the authors will explore the concept of risk. Secondly, the concept of a predictable future will be contrasted with an unpredictable future and that risk cannot be measured objectively. Human nature in prediction and the role of subjectivity will conclude the theoretical section. The paper will conclude with Business Continuity Management (BCM) as a recommendation to the management of risk.

RISK REVIEWED

ISO 31000 (2009, p. 1) defines risk as “the effect of uncertainty on objectives”. If we deconstruct this definition and determine the core (essential) elements of risk we can say: Firstly, for risk to exist there must be an objective. Without a clear objective there can be no risk. It is important to notice that the definition does not speak to goals, but to objectives. Secondly, in essence risk is uncertainty. We invoke Hume’s problem of induction again in that an event (good or bad) may be highly plausible (from past occurrences and experiences) but we cannot infer with certainty that the event will occur/not occur the next time. In terms of risk and risk management by “not” achieving your objective is not a risk, it is just the converse of the objective (The Orange Book, 2004, p. 15). Thirdly, the last critical element of risk is the “effect” that the uncertainty can have on the outcome of the objective. The effect can be negative (also known as a threat), or positive (known as an opportunity). Important to notice that risk can be positive, which contradicts the common understanding that risk is always something negative, such as an investment going wrong or a natural disaster such as an earthquake (which, are according to the risk vocabulary an event and consequence).

These are the essential element that constitutes risk and that needs to be understood by risk theoreticians and risk management practioners. Theoreticians and managers also needs to be aware of the “suitcase effect” that the concept of risk (through common use of the concept) are also used, for example:

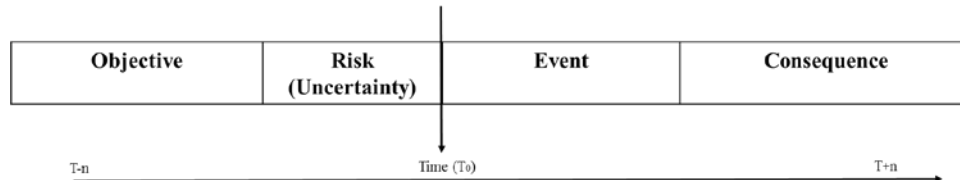
- To describe a negative event (decline in market capitalisation),
- Expressed as a consequence of a certain activity (because investors are looking at developed countries there is a decline in the market capitalization),
- Stated as a quantitative or qualitative value (Our market capitalisation decline by thirty percent, the value of our shares are lower),
- As a natural disaster (floods and earthquakes), and

- Risk is often expressed in terms of a combination of the consequences of event and associated likelihood. The risk value is a combination of likelihood times consequence (Old terminology - probability times impact or PI matrix) (ISO 31000, 2009, p. 2).

These alternative uses of the concept of risk adds to confusion regarding the management practice of risk management.

Ignored by risk theoreticians and practioners is the order of (events) activities over a time period. The sequence of activities over time is presented in Figure 1.

Figure 1 Time-Risk-Event sequence



Source: Author derived

The figure above explains that the event only occurs after the risk. The event is not a risk, the risk has been realised. The consequence is not a risk, but are the consequences related to the event itself. These consequences can be negative in that it poses a threat to the organisation or positive in that it can create new opportunities that can be exploited. Guide 73 (2009, p. 6) indicate that a risk can have more than one event, and an event can have more than one consequence. It is a “one-to-many” and a “many-to-one” relationship.

In the above discussion the concept of risk and what risk is was explained. We will now explore concepts inherent (but assumed and unstated) that is critical to the management of risk i.e. that the future is predictable or unpredictable, the role of human nature and lastly if risk can be measured objectively as a combination of likelihood times consequence.

THE FUTURE IS PREDICTABLE AND RISK CAN BE PLANNED FOR

Early management gurus since Taylor and Fayol provides a step-by-step plan of how to ensure an outcome is achieved, strongly believing that one (humans) has the ability to ensure that a future outcome is achieved. This is based on “Humans can predict the future by observing regularities”, which in turn is based on an unstated requirement that a pattern of relationships exists between events (Mintzberg, 1994, p. 231). This has led to the development of various models and techniques that are supposed to assist managers and organisations to predict the future.

Orrell (2012) is of the opinion that the future can be a great predictor of the past. This provides the initial building blocks of tools and techniques of planning. Business (and societies) takes great comfort that experts (Mintzberg refers to “seers”) can foretell the future and coming events. They even name one of the techniques used by the experts to the “seers of Athens” the Delphi technique (Mintzberg, 1994, p. 234). This is also reflected in that one often encounters subject matter experts in economics providing their confident and often arrogant prediction of where the stock market is heading in the future. The problem here is the assumption of causality, an ignorance of Hume’s problem of induction, and an ignorance of biasness and heuristics.

Taleb (2004, p. 242) explains the problem with the above-mentioned viewpoints with examples such as the Nobel laureates Drs. Robert Merton and Byron Scholes at Long-Term Capital Management in 1998. Their predictions of the future based on a mathematical model (that requires assumptions about the future) led to a near collapse of the world’s financial systems where they failed to consider scenarios that confronted key assumptions

in their mathematical models. This serves as a reminder that very smart companies and people make some very poor decisions. The use of mathematical models and other tools are only as good as the assumptions they are based on. The moment one of the assumptions does not hold true anymore, that moment the tool becomes ineffective (Orrell, 2012).

THE FUTURE IS UNPREDICTABLE AND RISK CANNOT BE PLANNED FOR

On the opposite of this argument is the school of thought who believes that the future is unpredictable and organisations cannot plan for it, they can merely respond to risk. We need to invoke Hume again. John Stuart Mill (1789) rephrased Hume in terms of the black swan problem that “No amount of observations of white swans can allow the inference that all swans are white, but the observation of a single black swan is sufficient to refute that conclusion” (Taleb, 2004, p. 117), (Also see Eikland above).

Taleb (2007) used the “Black swan” concept in describing risk (Black swan theory). A black swan event can be defined as outliers (an event that does not fall in our frame of reference or experience) in the realm of regular expectations; that carry extreme impacts. Until 1697 when Dutch explorer Willem de Flamingh discovered black swans in Western Australia no human has ever observed a black swan, as throughout Europe only white swans have been observed. In spite of outlier status of an event (it does not form part of our experience as human beings), human nature makes us create explanations for its occurrence after the fact.

Part of the human condition is the need to explain the often inexplicable (Taleb & Kahneman, 2013). The problem with this is that some events and phenomenon cannot be explained or even predicted. When humans (managers) observe regularities they assume that a pattern or relationship exists but one-time events makes predicting the future basically impossible (Mintzberg, 1994, p. 231). These events are not governed by rational laws (Orrell, 2012), and thus we cannot explain them. In essence our risk management forecasting tools and predictions are null and void as we cannot predict an event/phenomena that does not form part of our experiences, we can only respond to the event (phenomena).

HUMAN NATURE AND PREDICTION

In 1973, Daniel Kahneman and Amos Tversky (Kahneman, Slovic and Tversky. 1982) introduced the concepts of heuristics and biasness in human decision-making. According to Kahneman et al. (1982) heuristics is the over simplification of concepts, questions and problems related to the real world. The author state that biases are beliefs held by individuals that affect their ability to objectively assess uncertainty (Note the relationship with Hume). The authors identified three categories of biases; namely:

- Representativeness - how representative are the characteristics of an item with a category you are attempting to assign it to, this is also known as the “gamblers fallacy” where if a gambler observe a fair coin being tossed, after three heads the gambler will call tails as it appears to him/her that the next toss will result in a tail.
- Availability - how easily can you recall a similar circumstance/event that you believe will yield a similar result? The ease of which information and the quantity of similar information will affect your prediction of a future situation i.e. a large number (90%) of students of a undergraduate class attend an additional lecture before a test, you predict that a large number of students (90%) will pass the test. Ignored in this instance is regression to the mean (a pass rate of 60% over the last five years).
- Anchoring/Adjustment- when given a starting point to predict something, the starting point affects your ability to objectively predict the outcome. This anchoring can also be influenced by a sense stimulation that will sub-consciously influence the anchoring or point of reference e.g. You are shown a picture of a thunder storm and then asked what is the chance of rain this afternoon, against showing you a picture of a desert scene and then ask what is the chance of rain. In the first scenario you will rate the chance of rain higher then when shown a picture of a desert.

It is important to be aware of these human conditions if we are to assess risk objectively and successfully predict the outcomes of future events. Kahneman (2014) differentiate between two different types of

thought processing systems; namely System 1 and System 2 thinking. System 1 thinking is governed by intuition, past experiences and gut feeling; it is effortless. System 2 thinking is analytic, slow-thinking, and effort filled, although still based on past experiences and current knowledge.

System1 thinking is flawed in its approach in the sense that it is immersed in heuristics and biasness (Kahneman, 2014). As a result, our System 1 thinking leads to errors in modelling, predicting and preparing for uncertain future events. System 1 thinking is also subject to the following fundamental flaws:

- People view choices too narrowly (Fast thinking – we need an answer by tomorrow).
- People are subject to loss aversion (a loss is experienced greater than a gain).
- People are naturally optimistic and confident (e.g. climate change will not affect us now).

The problem for most organisations is that people use System 1 thinking when in fact they are under the assumption that they are using System 2 thinking. It is important for management to be aware of this when assessing risks as it often leads to the over-simplification of concepts that leads to confirmation biases, the narrative fallacy, and other errors of judgment.

OBJECTIVE RISK MEASUREMENT

As indicated under the discussion of risk, risk can also be described as a “*combination of likelihood times consequence*” that will provide us with a quantitative description of risk (Consequence X Likelihood = Risk value), which is supposed to indicate if the risk is acceptable or not. It is the only descriptor of risk that attempts to introduce some objectivity into risk, but is it correct? To quantify risk requires that the consequence and likelihood be assigned a numerical value applicable to the organisation or the risk assessment process. The consequence can be fairly accurately measured as a financial loss or gain, such as an above required return on investment (required return 10% per annum, actual return 12.5% per annum), or in case of a loss the destruction of an aircraft such as flight MH370 which runs into hundreds of million US dollar. The likelihood of such a disaster is very subjective. Probability analysis of an aircraft disaster indicates the chance of such an event is one in 11 million, which gives us a probability of 0.000 000 1 (Barrabi, 2014) times the cost of the aircraft loss (excluding human lives) US\$ 300 million, which provides us with a risk value of US\$ 30, which is absurd. The same argument is applicable when we use likelihood instead of probability. According to Taleb (2004) this is the Achilles heel of risk management. Air travel is still the safest mode of travel but no aircraft disaster is acceptable. Taleb (2007) goes further in stating it is not the likelihood (the author use probability) that is important but the consequence. The consequence of an aircraft disaster is catastrophic, doesn't matter whatever the likelihood. Objective risk doesn't exist as it is influenced by biasness and heuristics and is fundamentally flawed. But if risk is uncertainty about future events how can organizations manage these uncertainties and events?

BUSINESS CONTINUITY – A RESPONSE TO RISK

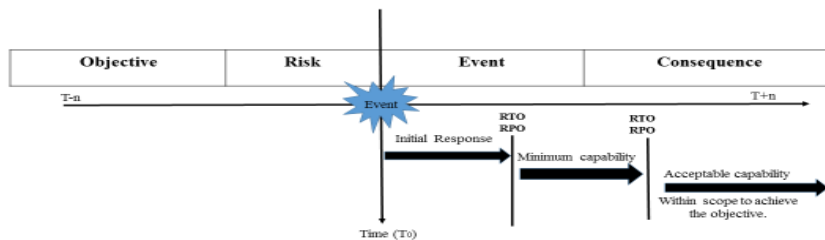
Business continuity (BC) can be defined as “[The] capability of the organization to continue delivery of products or services at acceptable predefined levels following disruptive incident” (ISO 22301, p.2). A point-in-case again is Air Malaysia (2014). There was a disruption in a business process (Flight MH370 – flight preparation – departure – flight – arrival – post flight evaluation). The process (simplified) was not completed. The aircraft did not arrive at its destination (An unforeseen event disrupted the process). How do we recover from this event and related consequences? The aircraft not arriving at its destination within schedule is not a risk, it is the consequence of a risk. A risk in this scenario can be unpredictable weather patterns, faulty navigation instruments, or incorrect human behaviour.

The objective of flight MH370 has not been achieved (To arrive safely at Beijing Capital International Airport). How does the organization respond to this? The link between risk management and the use of business continuity management is presented in Figure 2.

In Figure 2 time (T) is the common denominator. The moment the risk has been realised (the event and/or incident happened), that moment business continuity management (BCM) kicks in. There will be an

initial response and questions such as “how could it happen? Why did it happen?” will be asked. These kinds of questions are foremost in any manager’s actions. This is followed by the question “what can we do to correct the situation, to contain the incident? Of essence in this process are the concepts of Recovery Time Objective (RTO), which is the period of time in which the activity, action or business process must be restored after the event. The second concept is Recovery Point Objective (RPO), which is the level of acceptable recovery after the event (ISO 22301, p. 7). These two concepts go hand-in-hand. The initial response indicated in Figure 2 is normally of a very short duration and can range from minutes to a few hours. After the initial response we find the minimum capability. The BCM plan relating to the objective or business process need to state what is the minimum acceptable level of functioning or recovery that must be achieved in a specific period of time, for example “30% of our customers must be contacted within 24 hours to confirm their regulatory status”. In terms of an objective the minimum level of acceptability can be “In a week after the event we must review if the objective is still achievable, and the assumptions still holds true”. Operational objectives will have a shorter RTO/RPO than tactical or strategic objectives. Acceptable capability occurs when the business process is fully operational and the business objectives can still be achieved. In terms of achieving the stated objective this will be achieved when the plans (strategy) to achieve the objective are within the determined time, cost and quality parameters.

Figure 2 The Risk Management – Business Continuity Continuum



Source. Adapted from BS 25999-1 (2006, p. 27)

Risk and concepts related to risk in the risk body of knowledge can be summarised by asking four questions, and providing answer these questions. These questions are:

- What do we want to achieve (Objective),
- What can go right or wrong (Uncertainty – the risk, event and consequence),
- What can we do to prevent it from going right or wrong (Risk controls), and
- What do we do if it goes right or wrong (Response)?

These questions address the essence of risk and risk management and BCM is identified as a tool that managers and organizations can use in achieving the stated objective(s), or answering the last two questions.

CONSIDERATIONS FOR MANAGEMENT AND MANAGERS

The problem with the practice of “modern” risk and risk management is that risk is not just a negative event anymore and risk theoreticians and practioners needs to distinguish between the uncertainty (risk) and the event and consequences of the event. If the fundamental concept of risk and risk management is uncertainty, then it follows that the uncertainty can be either positive and/or negative. Terminology used by COSO and ISO 31000 separates uncertainty from the event, and the event is not anymore the risk but leads to consequences. What is totally ignored in the theory and practice of risk management is the role of time and the sequence of activities in managing risk. The contribution of this research is to differentiate between activities in a time-event sequence and proposes that once the event (negative or positive) happened we can only respond to it, and the only response available is Business Continuity Management.

Risk is the effect of uncertainty on objectives. In a social environment (which includes organizations and the management of organizations) the future is uncertain and cannot be predicted with certainty. Humans are not rational and are biased in their decision-making and aptitude towards risk. But the organisation still exists in an ever-changing environment. What does this hold for the management of risk (uncertainty) by and in the organization? In managing risk, organisation should always consider:

- The future is uncertain,
- Although we developed tools and techniques to assist us in predicting this uncertain future these tools and techniques are inadequate, and we must be aware of these inadequacies,
- Humans (employees/managers) are a representation of their experiences, emotions and desires, and more important not rational,
- Humans' ability to predict is influenced and can be influenced (controlled) by biasness and this needs to be recognised.
- Over-reliance on likelihood when evaluating a risk and in determining a risk value need to be considered,
- The business process (Business Continuity Management) that will allow the organization to be able to respond to the events (positive or negative), as well as the actions required to minimise the threats as well as actions to exploit opportunities must be in place.

In this discussion the concept of “risk” as defined by ISO (International Standards Organization) was presented and its critical elements discussed. Biases and heuristics that form an integral part of human nature were presented, and the effect of these biases on predicting the future explored. The time line of activities are presented and the point where BCM kicks in is determined. It is proposed that business continuity management (BCM) can serve as a response to events and consequences that arise from risk.

This article concludes with a statement by Young (2007) that:

It [risk management] is your desperate attempt to get some control over something you can't. It is impossible for you to take power over the future because it isn't real, nor will it ever be real. You try and play God, imagining the evil that your fear becoming reality, and then you try and make plans and contingencies to avoid what you fear. (p. 142)

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CREDIT USAGE INTENTIONS AMONG GENERATION Y STUDENTS: PILOT STUDY RESULTS

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ABSTRACT

This paper reports on a pilot study undertaken for a study designed to model the effects of image consciousness, compulsive spending, materialism and status consumption on credit usage intentions amongst African Generation Y university students in the South African context. A convenience sample of 47 students was drawn from the campus of a South African registered public higher education institution that was excluded from the sampling frame of the main survey. The purpose of the pilot study was to ascertain whether the scales in the research instrument would generate data suitable for structural equation modelling in the main survey. Data analysis included outlier screening using Mahalanobis distance, internal-consistency reliability analysis, descriptive statistics and Z-tests, Pearson's Product-Moment correlation and collinearity diagnostics.

Keywords: Credit usage intentions, materialism, status consumption, compulsive spending

INTRODUCTION

Credit plays a major role in the economy in that it gives consumers the opportunity to purchase goods they could not ordinarily afford and contributes to the economy by increasing potential spending. The economic growth the world experienced and the subsequent recession has been attributed to easy credit and lax controls (Stoop, 2009, p. 365). Unsecured lending in South Africa has grown at a phenomenal pace, increasing from R321 billion during 2011 to R441 billion during 2012 (Anon., 2013a), which is very important since unsecured lending somewhat offsets the effects of high unemployment and slow income growth on curbing consumer expenditure (Anon., 2013b).

Credit is however a mixed blessing to many South Africans. Obtaining credit is often seen as equivalent to obtaining an additional income (Mapother, 1999, p. 78), with many individuals perceiving credit transactions as an abstract and unreal concept and fail to really understand the cost involved in purchasing on credit (Roth, 2008, p. 78). In 2013, South Africa had over 19.6 million credit active consumers of which 9.25 million have impaired credit records (Goko, 2013) and the average debt to disposable income ratio being close to 75.8 percent (Maswanganyi, 2013) was high enough to raise the concern of the Governor of the South Africa Reserve Bank (SARB) Gill Markus (Marcus, 2012). This high debt to disposable income often forces consumers to take out new loans to repay old loans, something that further aggravates the problem and causes many people to become over indebted. Such individuals become stuck in a situation where they are unable to repay their loans, while interest charged on those new loans increases their obligations (Stoop, 2009, p. 368). The effects of being blacklisted can be quite serious to a consumer. A blacklisted individual will find it difficult to obtain future finance, difficult to rent property and difficult to find a job. In addition, such a person is likely to be charged higher interests rates and higher insurance premiums than individuals with a good credit rating (Irby, 2014).

There are several factors which have to be considered when examining South Africans credit woes. External factors such as past discrimination based on race and gender led to a huge disparity among South Africans. This discrimination was not limited to the public sector but was also practised by the private sector,

and the apartheid system “supported, encouraged and even demanded discrimination and unfair treatment of customers by business entities” (Rampersad & Reddy, 2012, p. 7407). This has created a situation where many people lack knowledge and experience which leaves them vulnerable to exploitation and unethical marketing (Rampersad & Reddy, 2012, p. 7407). This led to many problems including the emergence of the micro-lending industry, which often supply money at extravagant rates (Kelly-Louw, 2008, p. 200). In an effort to protect consumers from becoming over indebted and to protect them from such unethical practices, the government enacted the National Credit Act (NCA) which focuses on a number of problems, including the high cost of credit or lack of access to credit, vulnerable consumers being taken advantage of, reckless granting of credit, and unethical debt collection (Kelly-Louw, 2008, p.200).

Members in the Generation Y cohort, who are defined as individuals born between 1986 and 2005 (Markert, 2004, p. 12) represent an important current and future market segment to marketers across a range of product categories, including those in business of providing credit. In South Africa in 2013, members of the Generation Y cohort made up approximately 38 percent of the country’s population, of which 84 percent were African (Statistics South Africa, 2013). As such, the African Generation Y cohort offers a lucrative market segment to credit providers in South Africa. Mansfield and Warwick (2000, p.617) comment that since students are expected to have higher than average future earning power they are a desirable market segment and are aggressively targeted by credit providers. This is also true in South Africa where banks are increasingly targeting students, not only for student loans but also for student specific credit cards (Goko, 2013). This can lead to a situation similar to that in the United States of America where as far back as 1998, student debt had become such a significant problem that more students dropped out of university due to debt than to academic failure (Mansfield & Warwick, 2000, p.609).

A person’s propensity for taking on debt is influenced by several internal factors which also determine a person’s attitude towards credit. These factors have been the focus of research over the past 30 years. One such factor is materialism or the importance of material possessions (Belk, 1984, p. 291). People who show more materialistic tendencies tend to spend more money and are more likely to incur debt (Fitzmaurice & Comegys, 2006, p.298). Furthermore, according to Watson (1998), people who are more inclined towards being materialistic tend to have a positive attitude towards debt.

Research also indicates that people in developing countries are more materialistic than people in developed countries (Jacobs & Smit, 2010, p15). Materialism can thus be used to predict the propensity towards debt according to Ponchio and Aranha (2008, p. 21). Research has also been done using the Money Attitude Scale developed by Yamauchi and Templer (1982, p. 522), which distinguishes between four dimensions of money attitudes namely: power-prestige, retention-time, distrust and anxiety. Research has shown that consumers who use more credit tend to view money as a source of prestige or power, have greater anxiety over money and is less concerned with retaining money (Tokunaga, 1993, p. 314). Xiao *et al.*, (1995) developed a test to determine credit card attitudes among students with three dimensions: behavioural, affective and cognitive (p. 155). They found that more positive attitudes towards credit are indicated by the affective and cognitive categories as well as a strong association between demographics and attitudes. Nga, Yong and Sellappan (2011, p. 245) applied image consciousness, materialism and compulsive spending to predict credit behaviour amongst the youth.

From the previously mentioned studies, the following constructs have been identified and are used in this study:

- Image consciousness is “the perception that social approval can fill the lack of self-esteem within individuals” according to Xu (2007, p. 37).
- Materialism is most commonly defined as “the importance a consumer attaches to worldly possessions” (Belk, 1984, p. 291)
- Compulsive spending implies “repeated, obsessive, unbudgeted and often chronic excessive spending undertaken to compensate for lack of self-esteem, boredom, tension and anxiety” according to Shoham and Brencic (2003, p. 130).
- Status consumption is “the motivational process by which individuals strive to improve their social standing through the conspicuous consumption of consumer products that confer and symbolize status both for the individual and surrounding significant others” according to Eastman , Goldsmith and Flynn (1999, p. 93).

The primary purpose of this paper is to report on a pilot study undertaken to design a study intended to model the effects of image consciousness, compulsive spending, materialism and status consumption on credit usage intentions amongst African Generation Y university students in the South African context in order to understand the credit problems currently prevalent in the economy.

RESEARCH METHODOLOGY

A convenience sample of 47 students was obtained from a South African university located in the North-West province. A structured self-administered questionnaire was used to collect the required data for the pilot study on the influence of image consciousness, compulsive spending, materialism and status consumption on Generation Y university students' credit usage intentions. Image consciousness (7 items), compulsive spending (7 items) and materialism (19 items) were measured using the scales of Nga *et al.* (2011), whilst status consumption (5 items) was measured using the scale developed by Eastman *et al.* (1999). All scaled responses were anchored on a six-point Likert scale, ranging from strongly disagree (1) to strongly agree (6). The gathered data was analysed using SPSS, Version 22.

RESULTS OF THE STUDY

Mahalanobis distance was used to screen for any outliers, and this was assessed as chi-square at $p < 0.001$ with the degrees of freedom (df) equalling the number of constructs (Field, 2009, p. 217). Using the case numbers as the dummy dependent variable, Table 1 reports the 10 highest Mahalanobis Distance statistics generated by SPSS.

Table 1: Outlier statistics

		Case Number	Statistic
Mahal. Distance	1	19	21.521
	2	32	16.344
	3	41	11.380
	4	46	10.035
	5	14	9.488
	6	33	8.894
	7	9	8.320
	8	45	7.471
	9	34	7.372
	10	40	7.336

In this study there were five constructs. As such, any case with a Mahalanobis distance greater than 20.515 (chi-square value for $\alpha = 0.001$ at 5df) is an outlier. As is evident from Table 1, Case number 19 was an outlier and, as such, was deleted, resulting in a sample size of 46.

After the removal of the identified outlier, the Cronbach alpha and average inter-item correlation values were computed in order to assess the internal-consistency reliability of each of the constructs planned for inclusion in the main survey. Cronbach alpha above 0.6 (Malhotra, 2010, p. 319) and average inter-item correlation values that fall within the 0.15 to 0.50 range (Clark & Watson, 1995, p. 316) are indicative of acceptable internal-consistency reliability. The 12-item credit usage intentions scale delivered an unacceptable Cronbach alpha value of 0.243 and average inter-item correlation value of 0.033. After inspecting the Cronbach alpha value if certain items are deleted, it was evident that there were three items that were problematic, namely "I always pay my accounts at the end of the month", "I seldom fall behind in my account payments" and "I rarely go over my credit limits". The decision was taken to remove these items after it was determined that their

omission would not change the essence of the construct. Table 2 reports on the Cronbach alpha and average inter-item correlation values for the adjusted credit usage intentions construct, together with those of the other constructs in the study.

Table 2: Internal-consistency reliability

Constructs	Cronbach alpha	Average inter-item correlation alpha
Image consciousness	0.753	0.315
Compulsive spending	0.653	0.205
Materialism	0.789	0.163
Status consumption	0.615	0.245
Credit usage intentions	0.785	0.785

As shown in Table 2, all Cronbach alpha values exceeded 0.60 and all average inter-item correlation values were within the recommended range of 0.15 to 0.50. Therefore, each of the scales planned for inclusion in the main survey questionnaire were deemed to exhibit acceptable internal-consistency reliability.

The descriptive statistics computed for the pilot study are reported on in Table 3.

Table 3: Descriptive statistics

Constructs	Means	Standard Deviation	Skewness Statistic	Skewness Standard Error	Skewness Z-value	Kurtosis Statistic	Kurtosis Standard Error	Kurtosis Z-value
Image consciousness	1.81	0.61	0.825	0.350	2.357	0.058	0.688	0.084
Compulsive spending	2.20	0.65	0.934	0.350	2.669	0.846	0.688	1.230
Materialism	2.97	0.43	0.135	0.350	0.387	-0.952	0.688	-1.384
Status consumption	2.02	0.60	1.029	0.350	2.938	1.316	0.688	1.914
Credit usage intentions	1.82	0.71	0.160	0.350	0.457	1.119	0.688	1.627

The skewness and kurtosis statistics were used to compute the skewness and kurtosis z-values in order to assess the normality of the data distribution, where absolute z-values larger than 3.29 are significant at $p < 0.001$ and a significant z-value suggests a departure from normality (Field, 2009, p. 40). As indicated in Table 3, the absolute skewness and kurtosis z-values are all below the 3.29 level, which suggests that the data in the pilot sample is normally distributed.

A correlation matrix using Pearson's Product-Moment coefficient was then constructed in order to ascertain whether the credit usage intentions correlated significantly with each of its proposed predictors. This correlation matrix is outlined in Table 4.

Table 4: Correlation matrix

Constructs	1	2	3	4
Image consciousness				
Compulsive spending	0.379**			

Materialism	0.606**	0.252		
Status consumption	0.454**	0.261	0.613**	
Credit usage intentions	0.431**	0.709**	0.394**	0.351*

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

As reported in Table 4, there is significant correlation between credit usage intentions and each of its proposed predictors, and the direction of these relationships is in accordance with the literature. This suggests nomological validity of the proposed model.

Whilst there is no obvious signs of multicollinearity between the predictor variables of image consciousness, compulsive spending, materialism and status consumption given that none of these correlation coefficients exceeded 0.80 (Field, 2009, p. 170), collinearity diagnostics using the STATS COLLIN syntax instruction were carried out to check for more subtle forms. The results of the collinearity diagnostics are provided in Table 5.

Table 5: Collinearity diagnostics

			Variance Proportions					
Model	Eigen-values	Condition index	(Constant)	Image	Compulsive spending	Credit usage intentions	Materialism	Status consumption
1	4.839	1.000	.00	.00	.00	.00	.00	4.839
2	.061	8.882	.01	.15	.64	.00	.16	.061
3	.055	9.356	.05	.60	.08	.01	.12	.055
4	.038	11.279	.13	.05	.25	.02	.55	.038
5	.006	27.385	.81	.19	.02	.97	.17	.006

Even though the last root in the condition index is approaching 0.30 in Table 5, none of the constructs (rows) have more than one variance proportion greater than 0.50. As such, there is no evidence of multicollinearity.

CONCLUSION

This paper reported on the results of a pilot study conducted on the credit usage intentions of Generation Y students in South Africa. The purpose of the pilot study was to test whether the proposed research instrument scales would be suitable for structural equation modelling in the main study. After testing for and removing outliers, the skewness and kurtosis statistics were computed into z-scores. The absolute skewness and kurtosis z-values are all below the 3.29 level, which suggests that the data in the pilot sample is normally distributed. Following an inspection of the Cronbach alpha values, it was evident that three items needed to be removed from the credit usage intentions scale in order to arrive at an acceptable reliability coefficient. Once these three items had been removed, all Cronbach alpha values exceeded 0.60 and all average inter-item correlation values were within the recommended range of 0.15 to 0.50 and, therefore, each of the scales planned for inclusion in the main survey questionnaire were deemed to exhibit acceptable internal-consistency reliability. There was no evidence of multicollinearity between the proposed predictor variables. Furthermore, there was significant correlation between credit usage intentions and each of its proposed predictors and the direction of these relationships are in accordance with the literature, which suggests the nomological validity of the proposed model. Therefore, the scales in the research instrument appear suitable for applying structural equation modelling on the data from the main study.

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CORPORATE ENTREPRENEURSHIP IN THE PUBLIC SECTOR – A CASE STUDY OF THE SOUTH AFRICAN REVENUE SERVICE (SARS)

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ABSTRACT

This paper explores, through a qualitative case study design, the role of entrepreneurship in the public sector in South Africa. A 'private sector' framework through which to view a public sector organization's activities is used in order to examine if entrepreneurial activity is present. As entrepreneurial strategy development and entrepreneurial orientation are evidence of 'entrepreneurship', as well as corporate entrepreneurship, these constructs are explored in this research. The findings suggest that there is significant entrepreneurial activity in the public sector organization studied. Further, the research reveals and reinforces the view of entrepreneurship as universal, and takes the position of corporate entrepreneurship in established organizations beyond the sole remit of private enterprise. Although this particular organization is unique in its makeup, the public organization itself contributes, through innovative and proactive practices to this uniqueness. The implications of this research are important for other government departments and entities in South Africa, one of which is that possibilities for entrepreneurship reside within those organizations themselves.

Keywords: Public entrepreneurship, public sector organizations, entrepreneurial strategy development, entrepreneurial intensity

INTRODUCTION

This paper seeks to elucidate, using qualitative research, the ways in which the public sector, through the example of an organ of state, the South African Revenue Services (SARS), displays corporate entrepreneurship in its strategy development processes. The purpose and the focus of this research is to examine a public organization through the lens of what many consider private sector entrepreneurship, in order to uncover if entrepreneurial activities and thinking exists. Such activities and thinking would be realized in entrepreneurial behavior and innovative practices, as well as proactive and risk-taking behaviors within the organization. Easterby-Smith, Araujo and Burgoyne (1999:133) find "...many of the public sector organizations, are simultaneously under pressure from their own national governments, from the increasingly global market, and from their clients'.

To enhance public sector organizations, and to make them more efficient, many scholars and practitioners have repeatedly suggested that public sector organizations should become entrepreneurially oriented as a way to respond to these challenges (Diefenbach, 2011, Morris and Jones, 1999; Kearney, and Luke, Verreyne and Kearins, 2010). "Corporate entrepreneurship" is a term used to describe entrepreneurial behavior inside established mid-sized or large organizations (Morris, Kuratko and Covin, 2011:11).

Some of the founding theorists on entrepreneurship (Schumpeter and Kirzner) do not hold the private enterprise as the only site of entrepreneurial activity. Recently, evidence of governments becoming more innovative in how they do business with the public is emerging, for instance, Wiseman (2015), has recently published a series on Internationally Comparative Approaches to Innovation and Entrepreneurship in Education, (also see Klein, Mahoney, Gahan and Pitelis, 2010).

Further, Mitchel Weiss from Harvard University declares that public entrepreneurs around the world are improving lives and inventing entirely new ways to serve the public. Some examples include the use of sensors to detect potholes; word pedometers to help students learn; harnessing behavioral economics to encourage organ donation; crowdsourcing patent review amongst them (Weiss, 2015:1-2).

The strategic change in SARS operations culminated in the 2007-2014 Modernization Strategy. The broad objectives of this strategy were to sustain the momentum of the previous phases and build further capability by improving and introducing new systems capability (by automating where possible) and introducing new and smarter ways of doing business. Thereby improving the taxpayer and trader experience of SARS as well as ease the burden of complying with SARS requirements (SARS Strategic Plan 2013/14 - 2017/18:30).

Why is this research important?

The Global Entrepreneurship Monitor (GEM) finds that a country's economic prosperity is positively influenced by an active entrepreneurship sector. For South Africa, the recent GEM report finds that the level of entrepreneurial intentions has increased by 26% from 2003 to 2013. (Herrington and Kew, 2013:30).

Given this context, and especially directed towards government, this research is important in two specific ways. First, there is a severe lack of evidence on Corporate Entrepreneurship (CE) in the public sector in South Africa, and this research seeks to partly fill that gap. Second, given the changes at SARS (including the modernization strategy and practices) over the past decade, it is believed that its' positive impact on consumer perceptions, on nation building, and in terms of revenue collection, may provide the much needed evidence for other departments to learn from.

Problem Statement

Research and policies on entrepreneurship in South Africa are firmly aimed towards stimulating and assisting the private sector, with very little attention given to the public sector. The enormous challenges in the public sector, and the numerous positives that may be derived from entrepreneurship in general, points to a necessity in our understanding of this phenomenon, in the short-term, in order to reduce further inefficient and costly government actions and/or inactions. The problem is thus stated: There is a severe lack of evidence of entrepreneurial activity in public sector organizations in South Africa.

Research Questions

The overarching question seeks to examine whether an entrepreneurial strategy is in place at SARS, and do SARS executive committee members and/or senior personnel, display the core elements of CE in its business operations? Related to this question are the following:

- What are the processes (if any) for an entrepreneurial strategy development at SARS?
- What are the ways in which new corporate strategies, new products/services, new ventures, new business models, new markets and new internal processes are formulated as represented in the SARS strategic plan?

Propositions

Based on the research questions and criteria set out in the analysis framework, Figure 1, the following interrelated propositions have been developed to test whether these constructs are evident in SARS:

- P¹: There is no evidence of new corporate strategies in place at SARS.
- P²: There is no evidence of new products or services at SARS.
- P³: There is no evidence of new ventures at SARS.
- P⁴: There is no evidence of new business models at SARS.
- P⁵: There is no evidence of SARS involvement in new markets.
- P⁶: There is no evidence of new internal processes being formulated at SARS.

RESEARCH METHODOLOGY

This is an exploratory study, using a case study design. Yin (1994:13) defines a case study as “an empirical enquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. This research, and the methodology as detailed below, are well suited to this type of research given the boundaries between the phenomenon and context are to an extent, unclear. In this case study design a multi-pronged approach was used, including an extensive literature review. The first stage included a thorough review of SARS Strategic Plans 2013/14 - 2017/18 and 2014/15 - 2018/19, and other internal documentation from the organization, including a non-publicly available document entitled, *‘The transformation of the South African Revenue Services’*. The second stage involved primary data collection via in-depth interviews (IDIs), using semi-structured questionnaires. These questions were based on constructs in published work on corporate entrepreneurship as well as the internal documents of the subject (SARS). Follow-up interviews were also conducted regarding uncertainties about some aspects of the operations in SARS. These responses were recorded for later use during the findings part of the research. Five senior staff members were interviewed. Their positions within the organization were strategy, risk management, corporate governance, finance and business rescue. Confidentiality was required by them and the researchers ethically obliged.

The third stage involved aligning and populating the ‘Six Types of Corporate Entrepreneurship Outcomes’ with SARS strategic plans and information garnered from in-depth interviews. The ‘six outcomes’ are considered fundamental to an organization if entrepreneurial activity is to take place (Morris, van Vuuren, Cornwall and Scheepers, 2009:431). The six outcomes are new corporate strategies, new products or services, new ventures, new business models, new markets, and new internal processes.

The research framework and analysis were constructed around the six outcomes, and were utilized in the methodology design and also informed the development of semi-structured questionnaires. Together with the above noted framework, an analysis of key constructs of corporate entrepreneurship was also utilized in order to more holistically examine the research topic, these included entrepreneurial orientation, entrepreneurial strategy development, and definitions of entrepreneurship in the public sector.

LITERATURE REVIEW

‘Entrepreneurship happens in organizations of all sizes and types, including public sector organizations’
(Morris, 2011:28).

Morris, Kuratko and Covin (2011:35) highlight the manifold assumptions when dealing with public sector organizations including that they are monopolistic entities with captive demand, and conclude that in fact such assumptions are false. The authors argue that public sector organizations are under pressure to perform in a complex and rapidly changing and challenging world.

In researching, and indeed implementing entrepreneurial strategies in the public sector, many authors agree that there are challenges, while also acknowledging differences between the private sector and public sector, yet seek ways to provide the public sector with examples of, and the benefits to, corporate entrepreneurship strategies (see Kearney *et al.* (2009); Luke and Verreynne, 2006:6; Luke, Verreynne and Kearins, 2010:142; Bovet (1997:81,89), and Morris *et al.* (2009, 2011).

As a starting point, the thinking about corporate entrepreneurship must be beyond the private sphere. DuGay’s (2004:38) notion of enterprise is an important consideration in this respect. DuGay notes that “enterprise” no longer just refers to the creation of an independent business venture or the characteristics of model entrepreneurs or successful independent business people. It also refers to the ways in which economic, political, social and personal vitality is best achieved by generalizing a particular conception of enterprise form to all forms of conduct to the conduct of: organizations previously seen as non-commercial, government and its agencies and individuals’.

Morris *et al.* 2009:438; DuGay 2004:38, concur and underscore the point that no one specific or correct

way in which to implement corporate entrepreneurship exists. The authors' advocate for a multi-faceted and comprehensive approach that reflects the kinds of innovation the firm seeks at different levels of the organization. Importantly, they noted that it requires a sustained commitment to an entrepreneurial future on the part of senior management

The overarching point is that no matter the environment, public or private, the 'rules are pretty much the same' (Druker, 2007: 131). Thus, it is suggested that by becoming more entrepreneurial, public sector organizations can eradicate inefficiencies, exploit opportunities, and serve more people in better ways.

In the private sector, corporate entrepreneurship has been widely researched, and indeed for some, understood solely within this sector (as noted by Luke and Verreynne, 2006; Morris and Jones, 1999). Shockley and Frank (2011:185) elucidate the ubiquity of entrepreneurship and note that for Schumpeter and Kirzner and many well-known theorists of presumably private sector entrepreneurship make little or no mention of the private sector in their theoretical work.

Shockley and Frank (2011:185) make reference to Schumpeter's *Capitalism, Socialism, and Democracy* (1950) which argues that 'the entrepreneurial alertness takes place in the mind of the politician and the consequences can be compared with those of a technological innovation, namely to reform or revolutionize the pattern of production by exploiting an invention'.

Rainey's (2009:80) presentation of problems and approaches in public-private comparisons notes that defining a distinction between public and private organizations does not prove that important differences between them actually exist. Rainey (2009:86) finds that characteristics unique to the public sector - the absence of the market, the production of goods and services not readily valued at the market price, and value-laden expectations of accountability, fairness, openness, and honesty as well as performance –complicate the goals and evaluation criteria of public organizations.

Reinforcing these arguments Morris, Kuratko and Covin (2011:147), state that entrepreneurship is a universal construct and can be applied not only in a large corporation, but also in non-profit and public sector organizations. Indeed Morris *et al.* (2011:147) advocate a paradigm shift in how the public sector views itself, they note, "public sector organizations must view themselves as entrepreneurs, and the process of pursuing their social or public mission as an entrepreneurial undertaking". The *social or public mission* by the public sector, and governments' roles and responsibilities to its citizenry invites a number of challenges in attempting to understand the phenomenon of entrepreneurship in the public sector.

Shockley and Frank (2011:187) show governments' rich legacy of social entrepreneurship and provide numerous examples, especially originating from the United States of America, in their research on social entrepreneurship and state capacity. The authors' reiterate Bornstein's definition of social entrepreneurs as transformative forces: "people with new ideas to address major problems that are relentless in the pursuit of their visions..." (in Shockley and Frank, 2011:182). Thus, Bellone and Goerl (1992:131) highlight four important characteristics of public entrepreneurs – "autonomy, a personal vision of the future, secrecy, and risk-taking – need to be reconciled with the fundamental democratic values of accountability, citizen participation, open policymaking processes, and concern for the long-term public good (stewardship)".

A duality of corporate and social perspectives, which are often complimentary (or at least, less contrary as might be viewed initially), exists when entrepreneurship in public sector organizations is discussed. Corporate entrepreneurship is about entrepreneurship in established organizations and involves, at a basic level the generation, development, and implementation of new ideas and behaviors by a company or organization (Damanpour, 1991:556). Kearney, Hisrich and Roche (2009:39) in their research to understand the similarities, differences or a combination between private and public sector entrepreneurship find, amongst other key ideas, that for the private sector entrepreneurship is viewed as being fundamental. That is, entrepreneurship is something that private organizations must do. For public sector organizations they found that entrepreneurship needs engendering. This is understood, in terms, not so much as public sector having options, but rather lacking an understanding what they can do in terms of entrepreneurship.

Morris and Jones (1999:73) in their research on public organizations in South Africa, highlight the ‘process’ element in the definitions on entrepreneurship in the public sector, and include ideas on earlier works, including Bellone and Goerl, 1992; and Osborne and Gabler, 1992. Later, in 2013, Diefenbach’s compilation of definitions also exposes the earlier findings of a process, as well as the underlying dimensions of innovativeness, risk-taking and pro-activeness (also noted by Morris and Jones, 1999, and Kearney, Hisrich and Roche, 2009). Table 1 provides examples of those definitions as presented by Diefenbach (2011:33).

Table 1: Definitions of Entrepreneurship within Public Sector Organizations

Concept	Definition
Shockley <i>et al.</i> (2006:205)	“Public sector entrepreneurship occurs whenever a political actor is alert to and acts on potential profit opportunities, thus moving the system in which the actor is embedded toward equilibrium.”
Kearney <i>et al.</i> (2007:277)	Public sector entrepreneurship, which for the purpose of this research refers to state enterprise/civil service, is defined as an individual or group of individuals, who undertakes desired activity to initiate change within the organization, adapt, innovate and facilitate risk. Personal goals and objectives are less important than the generation of a good result for the state enterprise/civil service.”
Roberts (1992:56)	Public entrepreneurship is defined as the generation of a novel or innovative idea and the design and implementation of the idea into public sector practice.”
Currie <i>et al.</i> (2008:989)	“[...], entrepreneurship is seen as the process of identifying and pursuing opportunities by individuals and/or organizations. Further, this process is often characterized by innovativeness, risk-taking and proactivity”.
Morris and Jones (1999:74)	“Public sector entrepreneurship is the process of creating value for citizens by bringing together unique combinations of public and / or private resources to exploit social opportunities”.
Morris <i>et al.</i> (2008:103)	“Organizations can be characterized, then, in terms of their entrepreneurial orientation or intensity, which is a reflection both of how many entrepreneurial things they are doing, and how innovative, risky, and proactive those things tend to be. The basic steps in this process identified [in the private sector] should be no different in a non-profit or public sector context.”
Osborne and Gaebler (1992:263)	“[Entrepreneurial institutions/public entrepreneurs] use resources in new ways to maximize productivity and effectiveness.”
Acs, Z. and Szerb, L. (2009:363)	“...dynamic interaction of entrepreneurial attitudes, entrepreneurial activity and entrepreneurial aspiration that vary across stages of economic development’.
O Connor, A. (2012:546)	“...a definition of entrepreneurship that describes it as a social process involving the efforts of individuals in enterprise activity.”

Individual

Bellone and Goerl (1992:131) “Four important characteristics of public entrepreneurs – autonomy, a personal vision of the future, secrecy, and risk-taking – need to be reconciled with the fundamental democratic values of accountability, citizen participation, open policymaking processes, and concern for the long-term public good (stewardship).”

Ramamurti (1986:143) “[Public entrepreneur is] an individual who undertakes purposeful activity to initiate, maintain or aggrandize one or more public sector organizations.”

Currie *et al.* (2008:989) “Entrepreneurial [public] leaders expand the goals, mandates, functions and power of their organizations in ways not foreseen by their political masters. They build coalitions that knit together public and private interests to take advantage of opportunities for entrepreneurship.”

Adapted from Diefenbach, (2011:33)

Processes and Individuals

Two key factors stand out when we consider the definitions in table 1. These are processes and individuals. Table 1 highlights the notion of process, even if this point is not explicitly stated in the definition itself. For instance, Kearney *et al.*, speak of ‘to initiate change within the organization, adapt, innovate and facilitate risk’, while Roberts (1992) notes ‘the generation of a novel or innovative idea and the design and implementation of the idea’. Bellone and Goerl’s (1992:132) notion of ‘civic-regarding entrepreneurship’ implies that balance between private and public motivations need to be considered.

At the same time, we are aware that process often trumps the individual. For instance, we note ‘the function of entrepreneurship takes priority over the instrumentality of entrepreneurs’ (Shockley and Frank, 2011:186). That is, the priority of the process of entrepreneurship comes before the entrepreneur, the individual.

The point that entrepreneurialism in the public sector, unlike the private sector, does not rely upon particular individual attributes but on a group desire in organizations to change, adapt, innovate and entertain risk, where personal qualities and motivations are far less important than the generation of a galvanic force at the institutional and collective level is reinforced by Forster *et al.* (1996) (in Kearney *et al.* (2009:28)). The two components for corporate entrepreneurship in the public sector are important considerations for this research – processes and a group of individuals, or teams - as we seek to understand from a strategy perspective (senior executives), the decision planning and making, by key individuals, and how this impacts on entrepreneurship within the organization, i.e. in the organizations processes.

Established organizations perspective

Rather than seeking to make the distinction between private or public sector organizations, though distinctions clearly exist for example the profit motive, (Kearney *et al.* 2009:30), it is important to reduce such distinctions for a number of reasons in this research, as will be explained in detail in our framework below.

In his groundbreaking work, *Innovation and Entrepreneurship*, Drucker (2007:131) also rules out making such distinctions as he states, ‘entrepreneurship is based upon the same principles, whether the entrepreneur is in an existing large institution or an individual starting his or her new venture single-handed. It makes little or no difference whether the entrepreneur is a governmental or non-governmental institution. The rules are pretty much the same, the things that work and those that don’t are pretty much the same, and so are the kinds of innovation and where to look for them’.

Thus, it is important, for this research, not to make clear distinctions between private and public organizations, but to focus on ‘established organizations’. At the same time we seek to utilize a ‘private sector’ framework within a public sector setting. Morris *et al.* (2009: 429) definition “CE is ultimately concerned with fostering innovative, risk-taking and proactive behaviors in established organizations” and forms the core of this study.

Table 2 shows the often-cited comparison table between the ‘different’ forms of entrepreneurship - Comparing Independent, Corporate, and Public Sector Entrepreneurs from Morris and Jones (1999:80), Morris *et al.* (2011:136–137), and Diefenbach (2011:35).

Table 2. Comparing Independent, Corporate, and Public Sector Entrepreneurs

	Independent	Corporate	Public Sector
Primary Motive	Wants freedom; goal orientated and self-reliant; achievement motivated	Wants freedom and access to corporate resources; goal orientated and self-motivated, but also responds to corporate rewards and recognition	Power and achievement motivated; may think in grandiose terms; not constrained by profit motive
Main activity	Create and grow business	Create value within an innovate project	Create value for citizens by bringing together unique combinations of resources
Skills	Know business intimately, more business acumen than managerial or political skill	Strong technical skills or product knowledge; good managerial skills; weak political skills	Strong political skills; able to develop power sources beyond those formally assigned; adept at using public relations and the media to advantage
Attitude toward system	Frustrated by system so rejects it and starts his/her own	Dislikes system but learns to work within it and manipulate it	Tends to redesign or restructure the system to accomplish her/his own ends
Risks and failure	Assumes considerable	Likes moderate risks;	Calculated risk-taker; takes

	financial and personal risk: clearly identifies key risk factors and tries to minimize them, sees failure as learning experience	principal risks are career related: sensitive to need to appear orderly within corporation; hides risky projects so can learn from mistakes without political cost of public failure	big organizational risks without taking big personal risks by managing the process by which risky decisions are made: tends to deviate from rules only slightly at first, then progressively more; since failure is harder to define, will manage events to promote positive outcomes
Courage and destiny	Self-confident, optimistic, and bold	Self-confident, optimistic, and bold; cynical about the system but believes he/she can influence/manipulate it	Self-confident, optimistic, and bold; high tolerance for ambiguity; uses ambiguity as a source of managerial discretion

Source: Morris *et al.* (2011:136–137)

There are many similarities noted above in the three ‘types’ of entrepreneurs. One striking similarity must be the resourcefulness of each, as well as confidence in their abilities.

Entrepreneurial Orientation within Public Sector Organizations

An organization exhibits *entrepreneurial orientation* (EO) when it is innovative, proactive, and taking risks. (Covin & Slevin, 1991; also see Lumpkin & Dess (cited in Luke and Verreynne, 2006:6, and Kearney *et al.* 2009).

According to a literature review by Rauch, Wiklund, Lumpkin, Frese (2009:763), “EO represents the policies and practices that provide a basis for entrepreneurial decisions and actions. Thus, EO may be viewed as the entrepreneurial strategy-making processes that key decision makers use to enact their firm’s organizational purpose, sustain its vision, and create competitive advantage(s).”

Authors have noted that there are no established criteria that characterize an entrepreneurial organization. Sadler (2000:29) stated that, “corporate entrepreneurship, and those factors facilitating it, is not absolutes: if certain factors exist they will promote or inhibit the opportunity for corporate entrepreneurship”.

Morris *et al.* (2009:438) outline a number of steps, including the need to specify desired corporate entrepreneurship outcomes when an organization is setting the stage for entrepreneurship within the organization. These are dealt with in detail under the heading ‘framework for analysis of corporate entrepreneurship in the public sector’.

Entrepreneurial Strategy

Ireland *et al.* (2009:20) note that in spite of the importance of entrepreneurial strategy, the definitions are somewhat elusive (see also Luke and Verreynne, 2006:5). Two perspectives are noted, internal and external to the organization, the latter having a customer orientation focus. Importantly, if an entrepreneurial strategy is to exist, it must be purposeful and intentional, with respect to entrepreneurial initiatives.

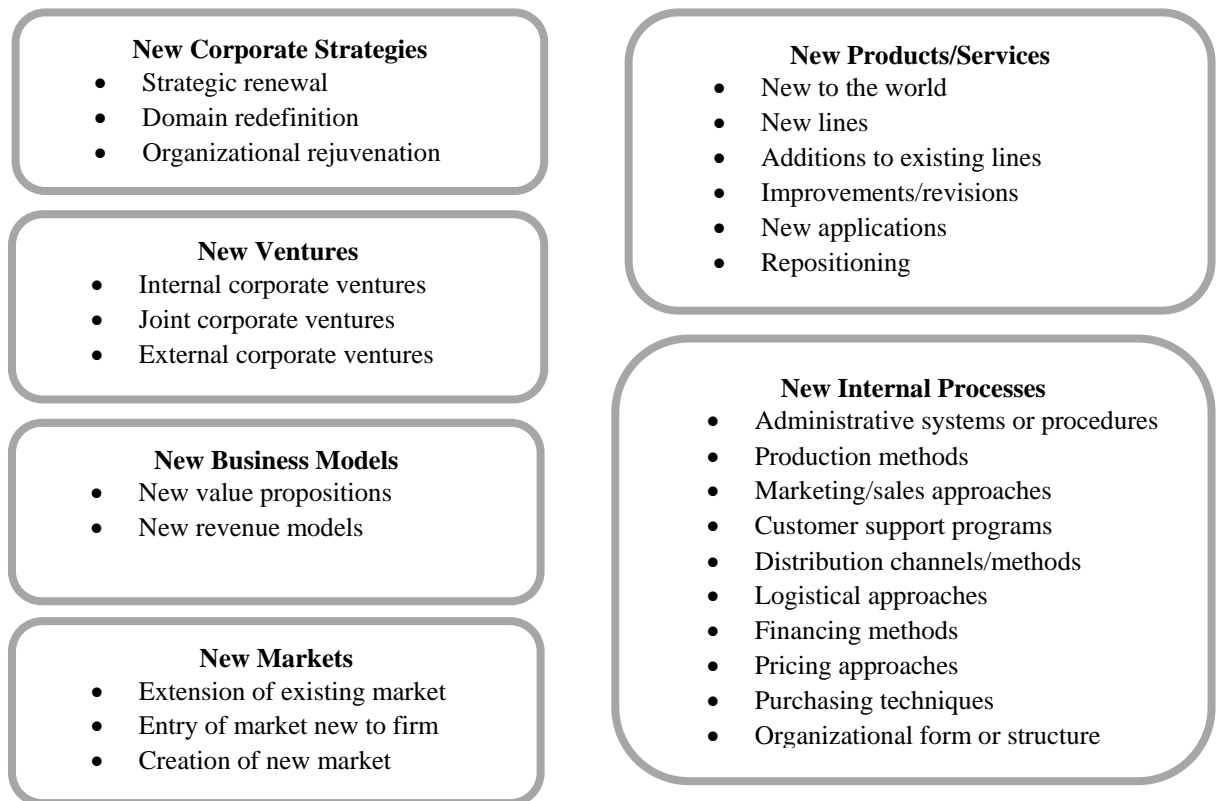
Ireland *et al.* (2009:21) define CE strategy as “a vision-directed, organization-wide reliance on entrepreneurial behavior that purposefully and continuously rejuvenates the organization and shapes the scope of its operations through the recognition and exploitation of entrepreneurial opportunity”.

Framework for analysis of corporate entrepreneurship in the public sector

The purpose of this paper, through exploratory research, is to investigate entrepreneurial orientation (EO) within the South African state-organ, South African Revenue Services (SARS). The innovative, proactive, and risk-

taking behaviors are thus apparent in what Rauch *et al.* (2009:763) refer to the policies and practices that provide a basis for entrepreneurial decisions and actions. By focusing in particular on the work of Morris, Van Vuuren, Cornwall and Scheepers (2009:430) and utilizing their six outcomes, New Corporate Strategies; New Ventures; New Business Models; New Markets; New Products/Services; and New Internal Processes for corporate entrepreneurship, as a lens through which to view SARS entrepreneurial activities. Morris, Van Vuuren, Cornwall and Scheepers (2009:430) advocate six outcomes in order to foster corporate entrepreneurship as the starting point and are noted in Figure 1.

Figure 1. Six types of corporate entrepreneurship outcomes



Source: Morris *et al.* (2009:430)

These outcomes can take a variety of forms, from the creation of entirely new ventures by the firm, to innovative changes in the strategy, business model, product portfolio, market boundaries, or operations of the firm' (2009:431).

South African Revenue Services (SARS)⁴

"The tax system stands at the centre of our democracy: It directly affects the everyday lives of virtually every citizen and, indirectly, has a profound influence on the economy" – Pravin Gordhan (Former Commissioner at SARS).

⁴ This section is informed, in large part, by the 2013/14-2017/18 and 2014/15-2018/19 Strategic Plans South African Revenue Service

Background

South African Revenue Services (SARS) is the nation's tax collecting authority. Established in terms of the South African Revenue Service Act 34 of 1997 as an autonomous agency, who is responsible for administering the South African tax system and customs service. SARS is recognized worldwide for their innovative practices and ways of thinking about revenue services⁵.

Key areas of responsibilities are to:

- Collect and administer all national taxes, duties and levies
- Collect revenue that may be imposed under any other legislation as agreed on between SARS and a state entity entitled to the revenue
- Provide a customs service that facilitates trade, maximizes revenue collection and protects our borders from illegal importation and exportation of goods, and
- Advise the Minister of Finance on all revenue matters.

It needs to be emphasized that SARS is not a conventional state department but an autonomous agency, which, according to the researchers, marked the beginning of its entrepreneurial surge. Since its inception in 1997, SARS (previously branded as the Receiver of Revenue) has gone through a transformation period, and a modernization period, to where it is today. Revenue records have continued to rise for 2014, tax revenue reached R900billion.

From 2013, SARS has made what may be considered as a monumental innovative shift, to 'promote compliance'. Promoting compliance is considered a softer approach in realizing the collection of revenue. . Financial citizenship, as referred to in interviews, meant that early on in life, would be taxpayers could understand their own roles in nation building. Practically, through engaging other stakeholders, such as government departments, and introducing SARS practices to them, and transferring skills, was reported as part of fulfilling their new mandate.

SARS four core outcomes

- Increased Customs Compliance;
- Increased Tax Compliance
- Increased Ease and Fairness of Doing Business with SARS
- Increased Cost Effectiveness, Internal Efficiency and Institutional Respectability

SARS's philosophy on taxpayer and trader compliance

At the opening ceremony of SARS on 1 April 1996, outgoing minister of finance, Chris Liebenberg, noted that *'now for the first time, we have the political backing to go into revenue collection using business principles'*.

Since its inception, it was clear that SARS was going to act very differently than other government departments; innovation and pro-activeness were to be paramount to the organization. According to SARS, compliance refers to the degree to which taxpayers and traders meet their obligations in terms of the legislation administered by SARS. This means inculcating a behavioral norm in which compliance to legislation is popularly perceived as a positive social value. Compliance must manifest along the entire value chain, which includes 'on-time registration', 'on-time filing', 'full and honest disclosure' and 'on-time payment'. In turn, taxpayers and traders who comply can look forward to speedy service, quick turnaround times (TAT), quick payment of refunds legitimately due and ease of trade.

This is achieved primarily through education of taxpayers and traders, providing a streamlined, efficient and friendly service, as well as by full enforcement of the law against non-compliant taxpayers and traders. (SARS

⁵ 2015 Paying Taxes study conducted by the World Bank and PwC, South Africa is ranked 19 out of 189 economies.

SARS Strategic Journey

As noted in the 2013/14-2017/18 Strategic Plan, the organization went through a number of specific phases, these were, Amalgamation: 1997 – 2000; Siyakha – ‘We are building’: 2000 – 2006; Modernisation: 2007 – 2014; Cumulative gains and improvements (cost and productivity); and what is next in SARS’s strategic journey?

During the Independent Depth Interviews it was indicated that SARS Modernization Programme is approaching its completion. It will however continue to be the driving force behind the SARS strategy, at least for the next two years (2014-2016). Modernization of SARS’s systems and processes has given SARS a platform and capacity to extend its reach to a much wider tax base and as such, gives it the capacity to broaden and grow compliance across the entire citizenry.

Over the course of this strategic planning cycle (beyond modernization), SARS will seek to ensure that the reality of fiscal citizenship is gradually realized through exploring the following initiatives:

- Improve access and availability of SARS services to the entire citizenry wherever they might be;
- Improve contact by minimizing the distance between SARS and the recipient of SARS services’;
- Implement the “right from the start” concepts through ensuring that communication with taxpayers and traders and potential taxpayers and traders is through socially acceptable means;
- Continue to implement the principles of a cooperative compliance approach to reduce compliance costs and increase certainty regarding tax and customs obligations for large businesses;
- Ensure that all SARS employees continue to perform at their peak and build the required skills;
- Simplify and improve requirements, processes and systems used to service the small business segment in order to reduce the compliance burden and costs to a point where these are no longer inhibiting factors to their compliance and growth (SARS Strategic Plan 2013/14 - 2017/18:28)

Findings: entrepreneurial activities at SARS

To be able to answer the research questions in The references to the SARS strategic plan highlighted in the table 3, show some of the most pertinent information that are considered as core outcomes, noted in Morris’s *et al.* (2009) framework. These outcomes were also confirmed during the IDI’s. The references are thus in line with what the expectations of what would be considered for the beginning phase or ‘setting the scene’, for entrepreneurial activity, and the entrepreneurial strategy development within the organization.

Under each of the six outcomes, we can confidently argue and illustrate that SARS has entrepreneurial activities in place. In many of the outcomes, there are numerous activities, and are not limited in their scope.

Table 3. SARS Entrepreneurial Activities aligned with six CE Outcomes⁶

NEW CORPORATE STRATEGIES	
Strategic renewal	Strategic Plan - 2013/14 – 2017/18 SARS’s over-arching strategic shifts to achieve the four core outcomes (noted above) As part of SARS’s rolling five year Strategic Plan, the organization adopted eight cross- cutting

⁶ This section is informed by the 2013/14-2017/18 Strategic Plan South African Revenue Service and in-depth interviews with key informants at SARS. The framework is adapted from Morris *et al.* (2009:430)

	<p>fundamental shifts to the manner in which it will go about carrying out its business and thus pursue its four core outcomes. These strategic shifts will inform the work of every detailed strategy, programme and initiative carried out in the organization.</p> <table border="1"> <thead> <tr> <th colspan="2">SHIFTING THEMES</th></tr> <tr> <th>FROM</th><th>TO</th></tr> </thead> <tbody> <tr> <td>1 Targeting eligible taxpayers</td><td>Building fiscal citizenship among all South Africans to contribute to nation building and institutional sustainability</td></tr> <tr> <td>2 Gate keeper</td><td>Risk management approach</td></tr> <tr> <td>3 Entity and product approach</td><td>Integrated economic view (multi-product and transactional value chain)</td></tr> <tr> <td>4 Uniform service offering</td><td>Differentiated service offering (based on compliance behavior and segment)</td></tr> <tr> <td>5 Manual</td><td>Automated/digital/self-service</td></tr> <tr> <td>6 Isolated departmental view of SARS efficiency</td><td>Whole of government view with enhancement of value chain activities before and after they enter the SARS domain in order to build a chain of institutional respectability in the pursuit of service delivery excellence for SARS and its other government partners</td></tr> <tr> <td>7 High administrative burden due to multiple registrations, multiple channels and manual forms</td><td>Reduced administrative burden through, for example, single registration, integrated channels and dynamic forms</td></tr> <tr> <td>8 People performing below potential due to non-standardized internal processes, no value alignment and low skill/low value add</td><td>People performing at their peak through, for example, values alignment and high skill/high value add</td></tr> </tbody> </table>	SHIFTING THEMES		FROM	TO	1 Targeting eligible taxpayers	Building fiscal citizenship among all South Africans to contribute to nation building and institutional sustainability	2 Gate keeper	Risk management approach	3 Entity and product approach	Integrated economic view (multi-product and transactional value chain)	4 Uniform service offering	Differentiated service offering (based on compliance behavior and segment)	5 Manual	Automated/digital/self-service	6 Isolated departmental view of SARS efficiency	Whole of government view with enhancement of value chain activities before and after they enter the SARS domain in order to build a chain of institutional respectability in the pursuit of service delivery excellence for SARS and its other government partners	7 High administrative burden due to multiple registrations, multiple channels and manual forms	Reduced administrative burden through, for example, single registration, integrated channels and dynamic forms	8 People performing below potential due to non-standardized internal processes, no value alignment and low skill/low value add	People performing at their peak through, for example, values alignment and high skill/high value add
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Domain redefinition	<p>Potential widening of SARS mandate as part of Government's efforts to improve service delivery</p> <p>The SARS mandate may potentially be widened to cater for the following:</p> <ul style="list-style-type: none"> • Government aims to balance trade facilitation to enable economic growth with Improved border security to combat the illicit movement of goods and people. To achieve effective border security, a Border Management Agency (BMA) model has been proposed to ensure greater operational synergies among the different processes at the border and provide clear delineation of responsibility and accountability for all the required aspects of border management. Under this model, the aspects of SARS's mandate pertaining to the protection of South Africa's borders will be impacted • The National Health Insurance (NHI) scheme initiated by government aims to ensure that all citizens have access to primary health care through a state-funded health insurance scheme. SARS will need to cater for any additional taxes that may need to be collected to fund this scheme. Furthermore, SARS may be required to administer the payment of claims, through leveraging the risk management principles, platforms and systems it has developed for the tax and customs environment. This would mean a significant shift in SARS's mandate and will require a rethink of how we do business • In addition, as part of SARS's strategy to pursue a 'whole of government approach', SARS has been involved in collaboration efforts with other government departments [e.g. the Department of Home Affairs – (DHA) and The Companies Intellectual Property Commission – (CIPC)]. SARS is looking to leverage citizens and company data held by these two government departments in order to simplify citizens and companies interaction with government 																				
Organizational rejuvenation	<p>Modernization: 2007 – 2014</p> <p>SARS broad objectives were to: sustain the momentum of the previous phases and build further capability by improving and introducing new systems capability (by automating where possible) and introducing new and smarter ways of doing business and thereby improving the taxpayer and trader experience of SARS as well as ease the burden of complying with SARS requirements. Key priority areas for the Modernization Programme were to:</p> <ul style="list-style-type: none"> • Acquire the relevant human resources skills to deal with high revenue generating taxpayers and traders requiring specialized skills to improve tax and customs compliance • Reduce human effort on processing medium revenue generating taxpayers and traders to increase ease and fairness of doing business with SARS and to become more cost 																				

	<p>effective and internally efficient</p> <ul style="list-style-type: none"> Effectively deploy human resources to broaden engagement with low revenue generation taxpayers and traders to improve tax and customs compliance. Modernization enables the automation of routine low value adding activities and frees up resources to focus on more complex higher yielding work and provide better customer service <p>Cumulative gains and improvements (cost and productivity) Throughout each phase in the SARS strategic journey, the main objective of each transformation phase has been to create a highly effective and efficient organization that is able to meet and address the needs of taxpayers and traders in the most cost effective and efficient manner. The tremendous growth in processing volumes between 2005 and 2012 has been achieved with a reasonably constant workforce (14500 in 2005 against 14990 in 2012). This has enabled SARS to meet the growing volumes of work associated with the tax and trader registers without a significant increase in overall costs. This is evidenced by the fact that SARS's cost of revenue collection has remained in a range of between 1.1% and 1.2% even after taking into account the considerable investment in the Modernization Programme.</p>										
NEW VENTURES											
Internal	<ul style="list-style-type: none"> Interfront SOC Ltd (www.interfront.co.za): Interfront was incorporated as a wholly owned subsidiary of SARS to serve as the most efficient and effective approach to building and supporting the new SARS Customs Information Technology (IT) solution. It is an integral part of SARS strategy and accountability processes. The use of a separate entity allows Interfront to continue to service and to seek other customers. This serves to promote customs harmonization, compliance and security amongst South Africa's neighbours, to leverage on the cost efficiency of having other users, to stay abreast of international developments and to generate a return on its investment in the intellectual property. Interfront is currently installing the Interfront Customs and Border Solution (ICBS) in SARS, which will be its second reference site. 										
Joint Corporate Ventures	<ul style="list-style-type: none"> Joint IT projects with other sectors of Government such as Home Affairs people movement system Bring all informal businesses, including immigrant businesses, into the formal sphere in collaboration with the Department of Home Affairs, Municipalities and CIPC, through a simplified registration process and a single business registration platform Increasing collaborations with other government departments including Home Affairs, Social Security Services and the Company Intellectual Property Commission 										
External	<ul style="list-style-type: none"> One stop border post (OSBO) with Mozambique. The government of South Africa and Mozambique signed an agreement to implement a combined One Stop Border Post between the two countries at Lebombo and Ressano-Garcia, with the objective to expedite passenger and goods traffic between the two countries 										
NEW BUSINESS MODELS	<table> <tr> <td>FROM</td><td>TO</td></tr> <tr> <td>Gate keeper</td><td>Risk management approach</td></tr> <tr> <td>Uniform service offering</td><td>Differentiated service offering (based on compliance behavior and segment)</td></tr> <tr> <td>Manual</td><td>Automated/digital/self-service</td></tr> <tr> <td>Isolated departmental view of SARS efficiency</td><td>Whole of government view with enhancement of value chain activities before and after they enter the SARS domain in order to build a chain of institutional respectability in the pursuit of service delivery excellence for SARS and its other government partners</td></tr> </table>	FROM	TO	Gate keeper	Risk management approach	Uniform service offering	Differentiated service offering (based on compliance behavior and segment)	Manual	Automated/digital/self-service	Isolated departmental view of SARS efficiency	Whole of government view with enhancement of value chain activities before and after they enter the SARS domain in order to build a chain of institutional respectability in the pursuit of service delivery excellence for SARS and its other government partners
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Isolated departmental view of SARS efficiency	Whole of government view with enhancement of value chain activities before and after they enter the SARS domain in order to build a chain of institutional respectability in the pursuit of service delivery excellence for SARS and its other government partners										
NEW MARKETS											
Existing	<p>SARS Compliance Programme: The SARS Compliance Programme is entering its second year of operation. The Compliance Programme is a set of compliance- improvement strategies that aims to increase the compliance of target taxpayer groups, processes and tax products in a systematic manner over a multi-year period. It carefully balances the need to achieve revenue targets (which would encourage targeting of high-revenue generating taxpayer groups) with the</p>										

	<p>principle of equity (which means that even the smallest taxpayer is treated fairly and appropriately). A compliance culture cannot be built by focusing on a select few as this will erode the trust placed in the revenue authority by the country's citizens and inhibit fiscal citizenship. The following seven priority areas will continue to be the focus of the programme over the next five years: Large Business and Transfer Pricing; High net worth individuals and their associated trusts; Small Businesses and Cost of Compliance; Tax practitioners and trade intermediaries; Illicit cigarettes; Construction Industry; Clothing and Textiles Industry.</p>
Entry to new market	<p>Entry into other government departments and entities: Department of Home Affairs and Social Security Services, and the Company Intellectual Property Commission</p>
Create new market	<p>Interfront SOC Ltd is maturing simultaneously and seeking entry to new markets. Whilst its performance measures are largely factored into the customs modernization and other deliverables, those distinct to the entity relate to its success in expanding its offering and market. Strategic priorities for Interfront of the next five years will be to continue:</p> <ul style="list-style-type: none"> • Engaging in the design and development of a customs and border management solution for SARS • Potentially expanding its African and global footprint • Improving its business model and governance
NEW PRODUCTS SERVICES	<p>SARS seeks to further government's aim of growing the economy and creating employment through trade facilitation and combating illicit trade activities. SARS believes that trade is facilitated through reducing compliance barriers to process the movement of goods in a far more efficient manner than before, while preventing the movement of illegal goods. SARS also aims to improve the information flow relating to trade, to positively affect turnaround times and assist in managing inspections better through more timely and accurate identification of compliance risks. This will also be done by using SARS's tax information base more effectively, to validate information and to reduce the requirements on traders.</p> <ul style="list-style-type: none"> • SARS will offer a differentiated service offering in the customs environment by rolling out a Preferred Trader Programme • SARS will automate and digitize the customs environment in order to improve efficiencies and turnaround times • SARS will strengthen external relationships in the customs environment • SARS will adopt a whole of government view in managing the customs environment • SARS will minimize the administrative burden in customs for travelers by implementing a new passenger processing system • SARS will strengthen its risk management capabilities in customs • SARS will continue strengthening international agreements and links with other jurisdictions
NEW INTERNAL PROCESSES	<p>Service Enhancements</p> <p>Growth in electronic interaction - Across the board, there has been a significant increase in the use of electronic channels for filing income tax returns. Electronic processing of Personal Income Tax (PIT), Corporate Income Tax (CIT), VAT, Pay-As-You-Earn (PAYE) and Provisional Tax increased by more than 85% over the past 5 years of modernization. The increase in electronic processing has enabled dramatic improvements in turnaround times, customer service and convenience. Major improvements in processing turnaround times – A reduction in the processing of PIT returns from an average of +55 working days in 2006 to an average of just 1.8 working days in 2011, with 96% of returns processed within 24 hours, compared to less than 2.6% processed in 24 hours in 2006/7. Real time tax assessments were introduced in 2012</p> <p>Improved Access</p> <p>During the past four years, considerable progress has been made in SARS being easily accessible to taxpayers and traders.</p> <ul style="list-style-type: none"> • Over 80% of interactions with taxpayers and traders result in their resolution • The number of calls answered in SARS Contact Centre increased from 3.8 million in 2006/7 to 5 million in 2010/11 • Introduction of mobile application (smart phones and tablets) to enable broader reach <p>Introduction of Help-u-eFile capability where a call center agent guides taxpayers remotely</p>

DISCUSSION OF FINDINGS

To be able to address the research problem and research questions it was investigated whether SARS, strategy development and procedures are initiated and developed at the highest level of management, the executive level, and formalized for a 'whole' (and segmented) organization activity.

That is, entrepreneurial strategy development at SARS happens at upper management levels only, providing for a top-down approach. Once strategies are developed, employees then implement.

As one key informant noted during the IDI's, although enablers are in place for idea generation from staff, and that new and different ways of operating (improvements) are welcomed, for the most part, plans are in place, and orders and administrative duties are followed by the majority of employees. Systematic ways of operating are important to the efficiency of the organization, and therefore the day-to-day activities must follow standard operating procedures. However, there does not appear to be a systematic approach in place that invites and welcomes innovative approaches from the floor, even though incentives (such as prize giving) are in recognized.

From interviews with SARS officials, a number of key themes emerged that are consistent with what is noted in the literature, for instance, innovative practices and proactive measures and behaviors were found, though these were not articulated in business management terminology.

When asked if entrepreneurship was part of strategy development, one interviewee noted that the term itself was not used, but modernization, which would include innovative and proactive practices and were deemed important, as are recorded in the strategic plan and analysis framework.

Together with the analysis of SARS' strategic plan and key informant interviews three core themes were revealed in the study under the following headings: Reactive and Proactive, Human Resource Management (processes, individuals and teams); and Customer Orientation and Organizational Culture.

Reactive to Proactive

During the previous dispensation (pre-1994, and South Africa's first democratic elections), revenue services were conducted across multiple government departments, and was paper based. The change in the external political, economic and social environment in South Africa brought about a need for an overhaul in revenue services. Especially important was to move away from a 'regular government position'. As noted by Gill Marcus at the time – "it was a very tough decision, and the argument that we put forward was: unless you fix revenue you cannot run your government. So, we said that SARS should be politically accountable, but administratively autonomous" (on autonomy becoming law in 1997, in 'The Transformation of the South African Revenue Service – A Case Study').

Human Resource Management – processes, individuals and teams⁷

At the outset, the organization was aware of the need to recruit and retain a skilled workforce. This was enabled by SARS not being restricted as a government entity, and therefore had a certain degree of autonomy (administrative), especially in competing with the private sector in remuneration practices. This was a fundamental beginning, if the organization was to act differently than other government departments or entities.

Part of the strategic plan, initially at least, was to move personnel steps ahead of what their jobs entailed. This thinking was informed around a need to become more customer focused, and move away from a paper-based system, thus, new workforce and organizational strategies had to be set in place to enable an automated and digitized system of dealing with huge amounts of data.

⁷ Much of the information contained in these sections are informed by Key Informant Interviews; SARS Strategic Plan 2014/15-2018/19; *The Transformation of the South African Revenue Service – A Case Study* (This latter document is a confidential document and can only be used for this research, and cannot be published without permission from the authors).

Central to the development of systems and restructuring are the process engineers. Processes had to be tailored and specific to SARS in the way that it organizes large amounts of private information. SARS noted that they invested over many years, in building up a large complement of process engineers, who are part of the permanent workforce.

The organizations projected human resources from 2014-2017 show a decrease of employees by 1.87%. The strategy is to replace the required capabilities with skills from the SARS skills pipeline programme.

Processes, individuals and teams

Process Focus – The organization made a fundamental shift (around 2003) from a silo-based product approach to a functional and process driven view. Taxpayer Service Centres, supported by Call Centres and Processing Centres, enable frontline staff to focus on meeting the needs of all taxpayers.

SARS built its own professional process-engineer complement. Process engineers look at process designs, and were referred to as ‘probably the biggest capacity in South Africa’. This HR strategy was developed in order to put SARS in line with banks, in how they think about problem solving.

The SARS Modernization Programme facilitated the migration of the majority of taxpayers to electronic payment platforms. This reduced the risk associated with cash collections at branch offices and significantly improved turnaround times. Payment methods other than branch payments are: filing and payments at banks. Efficiency, through the digitalized system, is realized in the increased uptake in e-filing. The e-filing system now accounts for 72.5%, while the value of payments at branch offices reduced from a high of 17.2% in 2009/10 to only 0.4% in 2013/14. The change in preferred payment channels speaks to an efficient and trusting system, and a greatly reduced need for branch activity.

Executives

Further, as part of the continued quest for productivity, efficiency and effectiveness in creating a sustainable institution able to deliver on its objectives, SARS has for a number of years focused on the growth and development of its leadership.

This collective process resulted in the development of the SARS Strategic Plan and has significantly contributed to the thinking behind the proposed review of the Operating Model and Governance structures.

Customer Orientation & Organization Culture

As outlined in the Strategic Plan, SARS puts the customer at the center of its planning. In order to improve compliance a better service needs to be offered. For example, a move was initiated to present the service outlets, SARS offices, more akin to banks than to government offices, as exemplified in the numbering system (queuing system) at branches, and also to improve the look and feel of the offices. The philosophy, of meeting customers where they are, and providing them with the best service, in a proactive manner, speaks to the overarching philosophy of compliance, and the new way that SARS chooses to view taxpayers, and the larger system it operates.

Discussion of propositions

Table 4. Entrepreneurship relevance, evidence and explanation

Proposition	Accept/Reject	Entrepreneurship relevance	Evidence and Explanation
P ¹	Reject	New corporate strategies	<u>Strategic renewal</u> – Overarching strategic shifts <u>Domain redefinition</u> – Potential Widening of SARS mandate <u>Organizational rejuvenation</u> – modernization

			2007-2014
P ²	Reject	New products or services	<u>New lines and improvements</u> - e-filing system, process engineering (streamlining of systems and risk management)
P ³	Reject	New ventures	<u>Internal</u> – Interfront SOC Ltd <u>Joint Corporate Ventures</u> - Joint IT projects with other government departments (Department of Home Affairs) <u>External</u> – one stop border post with Mozambique
P ⁴	Reject	New business models	<u>New value propositions and new revenue models</u> - strategic plans
P ⁵	Reject	New markets	<u>Extension of existing</u> – market segmentation (compliance) <u>Entry into new markets</u> – Government departments <u>Create new market</u> – Interfront (www.interfront.co.za) - Potentially expanding its African and global footprint
P ⁶	Reject	New internal processes	<u>Customer support</u> – customer focus (e-filing, hot-line, easy of payments online etc.) <u>Administrative systems</u> – improved access (mobile applications)

Table 4 shows that entrepreneurship can be applied in a public sector context. The analysis framework applied, shows that SARS leadership recognizes that entrepreneurship is fundamental to its current status, and continued growth. In line with the requirements as noted earlier by Morris *et al.* (2009), each of the six outcomes is active at SARS, thus providing the platform for corporate entrepreneurship in this public sector organization.

Though not explicitly spoken of at SARS, nor in interviews, we can confidently say that entrepreneurial thinking and action is at play. Insightfully, strategic thinking in relation to innovative practices (for example, interfront and collaborative work with other government departments) and proactive policies and practices (for example, HR policies, and fiscal citizenship), underscore CE in the public sector.

Looking at risk more broadly, we find certain elements within the organization (managing a system of tax returns and being unable to review each submission), though not comparable to the private sector in this respect. However, underperformance of the organization, and implementing strategies or innovations, should they fail, would position the organization less favorably, and could reduce confidence in the organization, and in turn could affect compliance. The other knock-on effects on the state are apparent.

The point of wealth creation is a strong aspect for CE in the private sector, however when we speak of public enterprises, this is usually not the case. As SARS has the unique position of ‘creating wealth’, albeit for public benefit, it adds to another dynamic, and overlay with private sector entrepreneurship, corporate entrepreneurship and social entrepreneurship⁸.

The three elements that constitute a CE strategy according to Ireland *et al.* (2009:25), as follows, an entrepreneurial strategic vision, a pro-entrepreneurship organizational architecture, entrepreneurial process and behavior as exhibited across the organizational hierarchy, are found at SARS. This latter point may be a little weak from this research, however, beyond those who develop strategy, the process engineers certainly contribute towards the six outcomes. Thus, there are signs of entrepreneurial processes and behaviors across the organizational hierarchy visible through the process engineers.

The SARS strategic plan, and in particular the point of ‘continually’ changing and not merely ‘finishing’ once the modernization phase is complete, speaks to the vision aspect noted by Ireland *et al.* (2009). In fact, if we recite the vision of the organization, clearly innovation as intentional is at the forefront (Morris and Jones, 1999). The vision for SARS is ‘to become an innovative revenue and customs agency that enhances

⁸ For instance, tax revenue collected amounted to R900billion (2014) and grew by R86.2 billion (10.6%) compared with the previous year.

*economic growth and social development, and supports our integration into the global economy in a way that benefits all South Africans*⁹.

An organization with entrepreneurial orientation is innovative, proactive, and risk-taking, as noted earlier. These dimensions emerge repeatedly in this study, and especially the elements of innovation and being proactive. These two elements appear jointly, and one (should) inform the other. Examples of these are the e-filing system, customer orientation, and the creation of new markets, working with government departments (DHA), employee training and development, amongst them.

Proactive for SARS is perhaps a product of the organizations historical circumstance, however, it may also be part of the demands for social development. Thus, it appears that SARS are well aware of the value and necessity of being proactive (being a motivator), as their innovative practices have assisted them in widening the tax base, revenue growth, and in turn providing those funds necessary for development.

It is informative then to revisit Schumpeter who states that ‘the entrepreneurial alertness takes place in the mind of the politician and the consequences can be compared with those of a technological innovation, namely to reform or revolutionize the pattern of production by exploiting an invention’. It is also insightful to refer to Roberts’ classification of public entrepreneurs; in particular he notes ‘executive entrepreneurs hold leadership positions without having been elected (Roberts, 1992:62-63). Thus at SARS we actually have a combination of political and executive entrepreneurs that are the embodiments of the individual and the team interacting to produce the six outcomes. In addition, and which reinforces the arguments central to this study is that entrepreneurship holds, ‘pretty much the same principles’ (Drucker, 2007:131) regardless of the setting, or as Morris *et al.* (2008:103) succinctly notes, ‘organizations can be characterized, then, in terms of their entrepreneurial orientation or intensity, which is a reflection both of how many entrepreneurial things they are doing, and how innovative, risky, and proactive those things tend to be. The basic steps in this process identified [in the private sector] should be no different in a non-profit or public sector context’.

LIMITATIONS OF THE STUDY

Although it has been pointed out that this is an exploratory study, a single method of research was utilized. One reason for this was that no other information (quantitative data) was available to the researcher at the time of data collection. At the same time the intention of the research project was not to verify through triangulation methods (Denzin, 1978) on what key-informants had relayed, but rather to understand key-informants’ perceptions of certain phenomenon, namely entrepreneurial activities within their organization.

Thus, the research was not seeking to examine if a strategy was being implemented, but whether strategy was developed according to our research questions above. As SARS is unique in the public sector landscape, due to the fact that they are the revenue authority, places them in a different category than other government departments, as does their position of administrative autonomy. The configuration of SARS means that generalizations may be difficult to draw from.

CONCLUSION

This paper has, through utilizing a ‘private sector’ framework of analysis and lens in which to view a public sector organization in South Africa, found entrepreneurial and innovative activities as well as entrepreneurial strategy development and entrepreneurial orientation.

By examining corporate entrepreneurship and the elements that underscore this construct through an ‘established organization’ perspective, reinforces the argument that entrepreneurship can occur in any setting. This idea has been found to be true in this research.

This research has also shown that corporate entrepreneurship in a public organization should not be limited or compared to the private sector that has often mistakenly been the case. In fact, what we have seen, is that it

⁹ SARS Strategic Plan 2013/14-2017/18

may be more useful to include social entrepreneurship insights with corporate entrepreneurship and explore how an established organization can serve in a more efficient and innovative ways the public to which it is accountable.

It is clear that these innovative practices can be found in many a public concern as business processes, structures, models and systems which are present can be changed by improving their entrepreneurial intensity (EI) to be more proactive, innovative and risk oriented. Furthermore the result of an increased (EI) can also result in new service products to their customers/ clients to improve the quality of service delivery as SARS did. It is also proven that the human resources management practices are also more entrepreneurial resulting in innovative ideas that are implemented

Finally, the South African Revenue Services is no doubt unique to the public sector landscape in South Africa; however it has also contributed to this uniqueness by creating a way of operating in line with corporate entrepreneurship practices.

RECOMMENDATIONS

It is very evident that all stakeholders in the public sector can take note of a number of the findings of this research to become more entrepreneurial. Interventions aimed at structures, processes, systems, strategies, organizational culture as well as human resources management practices is all opportunities that can increase the entrepreneurial intensity of these entities

Local, provincial and national governments need to apply these principles to enhance more creative delivery to their clients. The business model of a local government is a classic example where corporate entrepreneurship can be institutionalized. In South Africa they procure their two major product lines (water and electricity) in bulk and redistribute the product to their clients, taking on the role of a retailer, to their customers/ clients. They need to take note that an entrepreneurial orientation, as proven in these results, will not only foster innovation but also enhance the quality of services they offer. This applies to State agencies and Government owned enterprises that need to increase their level of entrepreneurial intensity to satisfy their clients' needs to eventually be more effective.

There is therefore an enormous responsibility on top management to instill and facilitate changes towards entrepreneurship in the public sector. Top management must also take note that new corporate strategies, new products or services, new ventures, new business models, new internal processes and new markets, as this research proves, practiced by SARS, requires entrepreneurial leadership and an entrepreneurial human resources management process that can facilitate such innovative, proactive and risk oriented behavior.

Although there are more conventional government departments inhibited by very bureaucratic structures, it is still evident that those public managers in leadership positions have to set innovation goals to be achieved to re-engineer the processes, strategies and structures to deliver higher quality services and projects to their clients. If a more entrepreneurial department has as its goal to satisfy the needs of their clients by increasing their innovativeness, risk-taking and proactiveness, be it a department of public works, agriculture, trade and industry or small business development the responsibility is to be taken up by top management to change the existing culture and way of doing business.

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THE RELATIONS BETWEEN ENTREPRENEURIAL ORIENTATION, ORGANIZATIONAL LEARNING AND ORGANIZATIONAL PERFORMANCE OF SMALL ENTERPRISES

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ABSTRACT

The study analyze the Organizational Performance antecedents, particularly the mediating role of Entrepreneurial Orientation in the relationship between Organizational Learning and Performance in small Brazilian companies. A confirmatory factor analysis, through structural equation modeling was performed (SEM), to test the relationship between the constructs. The results confirmed the hypothesis. The mediation role of Entrepreneurial Orientation to the relationship between Organizational Learning and Organizational Performance. It was noted, however, that organizational learning still needs to be better structured as a formal process in the small companies researched.

Keywords: Entrepreneurial orientation, organizational learning, organizational performance, small enterprises, Brazil

INTRODUCTION

Companies need to constantly adapt organizational strategies to promote growth and organizational sustainability, and develop competitive advantages. Therefore, entrepreneurship emerges as a viable option for companies to achieve the desired results: sources of sustainable competitive advantage (Dess, Lumpkin & Covin, 1997).

Initially, research on entrepreneurship sought to understand the entrepreneur's profile characteristics and the economic and social environment that favored the emergence of entrepreneurship itself. From the 1980s, the studies about entrepreneurship change the focus to the entrepreneurial process and then to the entrepreneurial orientation. (Castanhar, Dias & Hope, 2006). According to Lumpkin and Dess (1996), the entrepreneurial orientation (EO) refers to the decision-making processes and practices used to act entrepreneurially. The study conducted by Miller (1983) noted this evolution: the changed of the focus from the individual level of analysis to the organizational level of analysis. Based on Miller's (1983) and Lumpkin and Dess (1996) works, it can be understood that the EO is the decision-making processes and practices used to act entrepreneurially on the organizational level. This authors postulated that five dimensions reflect the EO in organizations: innovativeness, proactivity, risk-taking, autonomy and competitive aggressiveness. (Miller, 1983; dress & Lumpkin, 1996). While Miller (1983) proposed the EO's unidimensional (innovativeness, risk-taking and proactivity), Lumpkin and Dess (1996) proposed that the EO is a multidimensional construct, which can be manifested in the organizations depending on the context and situation (autonomy and aggression competitive). According to the authors, the five dimensions of EO can happen at different times, depending on environmental contingencies. Thus, faced with different types of opportunities and challenges, the dimensions may or may not occur. An

organization can be considered entrepreneurial when developing some dimensions and not necessarily all dimensions of entrepreneurial orientation.

Mainly from the study of Miller (1983), emerged some studies about entrepreneurial orientation, introducing gradually a cumulative body of knowledge in development. And some research on entrepreneurial orientation turn more specifically to the relationship between constructs, such as: organizational performance, organizational learning, market orientation, innovation, among others, as well as the variables that shape these relations. These studies suggest that there is a positive relationship between higher EO of an organization and its better organizational performance (OP), ie organizations with greater entrepreneurial orientation tend to achieve greater business performance and the consequent success. Rauch, Wiklund & Lumpkin (2009) conducted a meta-analysis to explore the magnitude of the relationship between entrepreneurial orientation and organizational performance, and evaluate potential moderators affecting this relationship. The results indicated that the correlation of EO with OP is moderately large. This study findings supported the EO's dimensions (innovativeness, proactivity and risk-taking) impact in a balanced way the business performance. Studies of Fernandes and Santos (2008); Wang (2008); Short, Payne, Brigham, Lumpkin and Broberg (2009); Wiklund, Patzelt and Shepherd (2009); Frese (2009); Rhee, Park and Lee (2010); Covin and Lumpkin (2011); Wales, Monsen and McKelvie (2011); Zhao et al (2011);. Huang and Wang (2011), Chiva and Alegre (2013), Sheep (2013); Reis Neto et al (2013); and Real, Roldán and Leal (2014) also turn to this issue.

The objective of this work is to analyze the antecedents of the Organizational Performance, particularly the mediating role of Entrepreneurial Orientation in the relationship between Organizational Learning and Organizational Performance in small Brazilian companies. Based on the literature theme and the OE's concept proposed by Miller (1983) that includes innovativeness, proactivity and risk taking's dimensions, was formulated the first research hypothesis.

H1: The entrepreneurial orientation of the organization is positively related to organizational performance;

In turn, the organizational learning is essential to be sustainable in the competitive and dynamic environment (Garvin, 1993). An organization is considered oriented to learning when adopting a continuous improvement process, by encouraging learning and development to transform structures, attitudes, behaviors (Garver, 1993).

Slater and Narver (1995) describe organizational learning as a process of knowledge development that impacts the company's behavior, especially in relation to organizational performance. Barney (1991) postulates that the knowledge created in an organization is an important feature because it is responsible for generating and sustaining the sources of company's competitive advantage. For Hanssen-Bauer and Snow (1996) to establish a learning process it is necessary the fulfillment of some steps: information acquisition, interpretation, experimentation focused, dissemination of experience and knowledge restructuring.

Fernandes and Santos (2008) and Li, Huang and Tsai (2009), among others, addressed the relationship between entrepreneurial orientation and organizational learning. The results show that EO is a key factor for learning, innovation and organizational performance. Rhee, Park and Lee (2010) developed a theoretical review about EO, MO and learning orientation; they built a theoretical model and created hypothesis. These hypotheses were tested using structural equation model, and the results confirm that the continued companies' commitment to learning is the key to innovation and performance in small technology-based companies. This study found that this relationship is increased by EO. This study provided a better understanding of performance developers in small businesses and also contributes to the field of research about innovation and EO.

Based on this argument, the following hypothesis were developed:

H2: The organizational learning is positively related to entrepreneurial orientation;

To the extent that organizational learning constitutes a cumulative body of knowledge over time, its connection to organizational performance depend on the establishment of processes that lead to higher knowledge. However, for small businesses with up to 49 employees, the processes of organizational learning may be not structured. This leads to the third and fourth hypotheses of this study.

H3: The organizational learning will have a negative and significant relationship with organizational performance;

H4: Organizational learning will have a positive and significant relationship with organizational performance through the mediation of entrepreneurial orientation, regardless the moderation of organization's lifetime.

These hypotheses are represented in Figure 1.

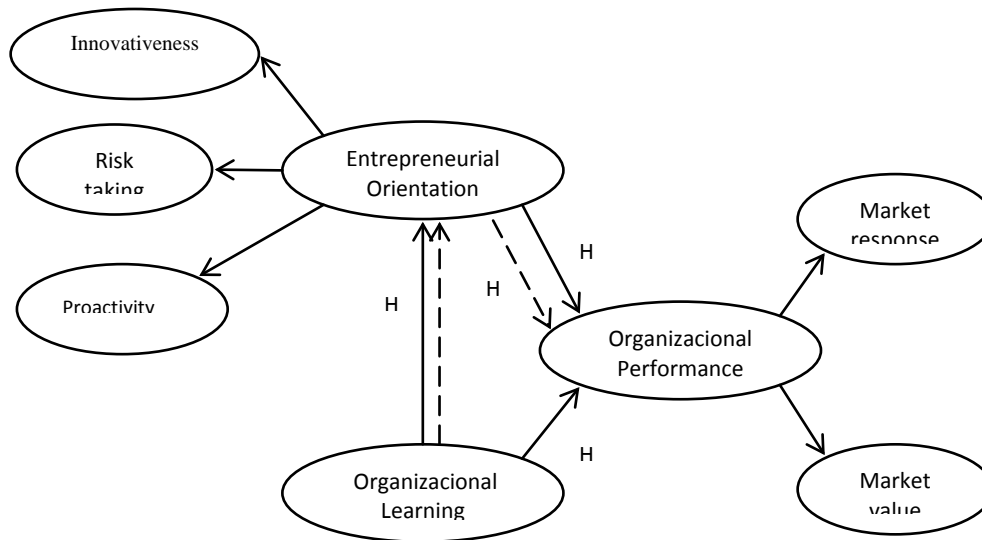


Figura 1 – Conceptual model

*the dotted line represents the mediating relationship.

METHODS

The research was a descriptive, quantitative, survey type. A stratified sample was defined as 200 managers of retailers and service companies established in the Dirceu Arcoverde neighborhood in the city of Teresina, Piauí, Brazil. It was carried out between June and July 2014. These individuals were included only once in the sample (Malhotra, 2012). The data collection instrument was a structured questionnaire with closed questions. It was divided into four parts, as follows: the company profile, the entrepreneurial orientation, organizational learning and organizational performance. The first part included questions characterizing the type of company (micro or small), the business sector (trade or service) and the time of existence. The company's classification criteria was proposed by the Brazilian Service to Support Micro and Small Enterprises (Sebrae, 2014). It states that the micro company has up to 9 employees; and the small company has between 10 and 49 employees. The companies' life was divided into companies with up to 4 years of existence, and being still young; companies with 5 to 10 years, in consolidation, and companies with more than 10 years, as mature. In the second part, to measure entrepreneurial orientation, it was adapted the scale developed by Carneiro (2014). In the third part the organizational learning was measured. In these two parts were used a Likert scale of 7 points of agreement (1 - strongly disagree to 7 - strongly agree). The fourth and last part measured organizational performance, subjectively. These measures involve subjective perceptions of the comparative result of the company in relation to its main competitor, it was adapted from Moore and Fairhurst's (2003) and González-Benito, Benito and González-Muñoz-Gallego's (2008) scale. In this part was used a Likert 7-point scale (1 - much worse to 7 - much better).

Initially the data were explored using the SPSS v.21 software to analyze the companies' profile and to verify the normal distribution through the Kolmogorov-Smirnov test, collinearity analysis by the Inflation Factor of variance test (VIF), where items with values below 5 can be kept. The small businesses were grouped into sub-samples by time of existence, for further moderation test of this aspect, in comparing the proposed relationships in the conceptual model. For grouping the companies were observed the time in business of the organizations. The proposed relations of the conceptual model presented were analyzed through structural

equation modeling (SEM) using the Smart PLS 2.0 M3 software (Ringle, Wende, 2010) which allows a better prediction of structural relationships (Hair Jr., 2014) to observe the determination coefficient (R²) of the dependent variable. It is considered acceptable R² above 2% in the social sciences. It was used convergent and discriminant analysis criteria for adjustment of the proposed proposed. Convergent analysis was performed through observation of factor loadings above 0.7 and Average Variance Extracted (AVE) above 0.5. The discriminant validity was observed through the square root of the AVE of each variable versus its correlation with the other variables. Also cross-loads were observed (crossloadings) of each item in its respective variable. In a complementary manner it was analyzed the Cronbach's alpha and composite reliability. Acceptable values are considered above 0.6 and 0.7 respectively. To accept the statistical significance of differences of the other tests were accepted values of α of 10%, or 90% of confidence, with value of t-student at or above 1.67 and p-value of 0.10 or less. This standard was used in the analysis of the structural relationships between variables through resampling technique Bootstrapping. Also was used this standard in the mediation and moderation tests. The mediation test was carried out using the Sobel test. For the moderation test the sample was separated according to organization's time in business, and compared the statistical significance of the relationship between the dimensions of OL and EO as well as the relationships between EO and OP dimensions.

RESULTS

This study included 200 companies, 71 considered young, 76 and 53 mature and consolidated, respectively. No question had missing data. The initial exploration of the data revealed no multicollinearity. In all items VIF fell below 5. The data distribution was observed and identified their non-normal ($p < 0.001$). The conceptual model was initially tested in general base with all organizations. In order to search the convergent validity of the model, seven items, with factor loadings below 0.7, were excluded. 2 items of the innovativeness dimension, 4 items of organizational learning and one item of market value dimension were eliminated. Convergent validity setting indicators can be seen in Table 1.

Table 1 – Convergent validity

Dimension	AVE	Composite Reliability	R Square	Cronbachs Alpha
Organizational learning	0,563	0,865	-	0,806
Risk-taking	0,556	0,787	0,538	0,594
Innovativeness	0,679	0,863	0,654	0,763
Proactivity	0,627	0,834	0,702	0,702
Market response	0,663	0,853	0,822	0,740
Market value	0,774	0,873	0,697	0,711

Source: Research data.

The discriminant validity was also observed by the square root of AVEs of variables greater than its correlation with the other variables, as noted in Table 2 and confirmed by the cross-loads of items which were higher in their respective variables than in others (crossloadings), in Table 3.

Table 2 – Discriminant validity

Dimensões	Organizational learning	Risk-taking	Innovativeness	Proactivity	Market response	Market value
Organizational learning	0,751*	-	-	-	-	-
Risk-taking	0,406	0,746*	-	-	-	-
Innovativeness	0,549	0,376	0,824*	-	-	-
Proactivity	0,559	0,485	0,487	0,792*	-	-
Market response	-0,027	0,033	0,133	0,110	0,815*	-
Market value	0,137	0,081	0,291	0,170	0,526	0,880*

Source: Research data, *square root of AVE

Table 3 - Crossloadings

Item	Organizational	Risk-taking	Innovativeness	Proactivity	Market	Market value
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	learning				response	
ao1	<u>0,739</u>	0,318	0,409	0,455	0,049	0,109
ao2	<u>0,779</u>	0,324	0,387	0,354	-0,075	0,117
ao3	<u>0,665</u>	0,208	0,362	0,311	-0,014	0,044
ao4	<u>0,754</u>	0,287	0,449	0,351	0,013	0,204
ao7	<u>0,808</u>	0,361	0,444	0,574	-0,069	0,045
inov1	0,450	0,183	<u>0,762</u>	0,368	0,147	0,237
inov2	0,432	0,347	<u>0,852</u>	0,370	0,132	0,239
inov3	0,476	0,379	<u>0,855</u>	0,461	0,060	0,246
proa1	0,490	0,403	0,395	<u>0,780</u>	-0,027	0,058
proa2	0,364	0,364	0,333	<u>0,800</u>	0,063	0,083
proa3	0,469	0,384	0,426	<u>0,796</u>	0,221	0,256
riscoc3	0,290	<u>0,626</u>	0,198	0,307	-0,046	0,015
riscoc1	0,294	<u>0,742</u>	0,283	0,334	0,121	0,086
riscoc2	0,327	<u>0,852</u>	0,343	0,433	-0,006	0,071
rm1	-0,042	0,043	0,140	0,089	<u>0,849</u>	0,448
rm2	-0,035	0,021	0,143	0,092	<u>0,893</u>	0,482
rm3	0,020	0,015	0,026	0,090	<u>0,688</u>	0,343
vm1	0,178	0,080	0,304	0,204	0,377	<u>0,859</u>
vm2	0,072	0,064	0,217	0,104	0,537	<u>0,901</u>

Source: Research data

The structural relations of the conceptual model proved adequate explaining 4.9% of the variance of organizational performance, according to pre-established criteria (Hair et al, 2014), It supported hypotheses H1, H2 and H3. These indicators are shown in Table 4.

Table 4 – structural relations

Hypotheses	Structural relationship	Time of Existence	Original Sample	t Statistics	p-value	Status
H1	EO -> OP	General	0,2824	2,3542	0,020	confirmed
		Young	0,287	1,703	0,093	confirmed
		Developing	0,302	1,797	0,076	confirmed
		Mature	0,326	1,709	0,093	confirmed
H2	OL -> EO	General	0,643	10,035	0,000	confirmed
		Young	0,722	6,194	0,000	confirmed
		Developing	0,769	7,922	0,000	confirmed
		Mature	0,489	3,385	0,001	Confirmed
H3	OL- > OP	General	-0,131	1,394	0,165	Confirmed
		Young	-0,103	0,822	0,414	Confirmed
		Developing	-0,221	1,351	0,181	Confirmed
		Mature	-0,108	0,853	0,397	Confirmed

Source: Research data

It was noted the mediation of EO to the relationship between OA and OP. The Sobel test was performed in the overall sample and in the subsamples of organizations classified by time of existence. These results are shown in Table 5. These results confirm the hypothesis H4.

Table 5 – Sobel test

OL→EO→OP	Sobel test	p-value
Amostra general (n=200)	2,288	0,022
Young enterprises (n=71)	1,641	0,105*
Mature enterprises (n=76)	1,752	0,079
Old enterprises (n=53)	1,620	0,104*

Source: Research data

*minimum difference to be considered in an exploratory research

The moderation test considers the influence of time of existence of the organization on the relationship between OL and EO and the relationship between EO and OP. These relations shape the mediation of EO. These results collaborate to confirm the hypothesis H4. These results are shown in Table 6.

Table 6 – Time moderation of the relation of EO variable of mediation.

	Relation	Young	Mature	Old
General sample	OL→EO	t=1,053; p=0,294	t=1,053 ; p=0,294	t=1,289; p=0,199
	EO→OP	t=0,021; p=0,983	t=0,088; p=0,930	t=0,111; p=0,912
Young	OL→EO	-	t=0,308; p=0,758	t=1,474; p=0,142
	EO→OP	-	t=0,062; p=0,951	t=0,093; p=0,926
Mature	OL→EO	-	-	*t=1,927; *p=0,055
	EO→OP	-	-	t=0,034; p=0,973

Source: Research data.

*only significant case found

CONCLUSION

This study confirmed that Entrepreneurial Orientation has a very strong relationship with organizational performance, in small businesses in general ($\Gamma = 0.282$; $t(199) = 2.354$; $p = 0.019$), as well as in young organizations ($\Gamma = 0.287$; $t(70) = 1.703$; $p = 0.093$), or in the developing ones ($\Gamma = 0.301$; $t(75) = 1.796$; $p = 0.076$) or in the mature ($\Gamma = 0.325$; $t(52) = 1.7094$; $p = 0.093$). In an environment of increasing uncertainty this feature is strategic for small organization, and may be the difference between staying in the market or not. The young versus mature organizations did not show significant differences in the Entrepreneurial Orientation dimension (MEO young = 5.87, MEO mature = 5.89, $p = 0.383$). This seems to indicate that in the early years, the organization maintains this philosophy of action, but that they lose over time. Companies in consolidation have lower Entrepreneurial Orientation than companies younger or mature. The mature companies are less innovative than younger or consolidation companies. However, Organizational Learning obtained a non-significant relationship with organizational performance, not only in the sample as a whole ($\Gamma = -0.131$, $t(199) = 1.393$; $p = 0.164$), but in all other classifications, such as in business young ($\Gamma = -0.103$, $t(70) = 0.822$, $p = 0.413$), developing ($\Gamma = -0.221$, $t(75) = 1.350$, $p = 0.180$) and mature ($\Gamma = -0.107$, $t(53) = -0.8534$, $p = 0.397$). These facts suggest that the Entrepreneurial Orientation can impact differently in organizational performance according to companies' time of existence, however, this did not happen. Some other element must coexist in the development of small organizations that combined with the Entrepreneurial Orientation end up balancing the results in organizational performance, and mitigating the effect of Entrepreneurial Orientation. This element could be Organizational Learning, which also does not change in organizations according company's time of existence (MAO young = 6.51, = 6.45 MAO consolidation and mature MAO = 6.40, $p\text{-value} > 0.05$ in all possible combinations). The Entrepreneurial Orientation has crucial role in influencing organizational results. For small businesses managers these results suggest that Organizational Learning should be structured as a process that can generate effective contribution to the expansion of corporate earnings. This learning should also contribute to the innovative capacity of the organization, another aspect previously identified as minor contribution to the organizations in this study.

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LINEAR AND NON-LINEAR REGRESSION: POWERFUL AND VERY IMPORTANT FORECASTING METHODS

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ABSTRACT

Regression Analysis is at the center of almost every Forecasting technique, yet few people are comfortable with the Regression methodology. We hope to improve the level of comfort with this article. In this article we briefly discuss the theory behind the methodology and then outline a step-by-step procedure, which will allow almost everyone to construct a Regression Forecasting function for both the linear and some non-linear cases. Also discussed, in addition to the model construction mentioned above, is model testing (to establish significance) and the procedure by which the Final Regression equation is derived and retained to be used as the Forecasting equation. Hand solutions are derived for some small-sample problems (for both the linear and non-linear cases) and their solutions are compared to the MINITAB-derived solutions to establish confidence in the statistical tool, which can be used exclusively for larger problems.

Keywords: Linear regression, non-linear regression, best-fitting model, forecasting

INTRODUCTION AND MODEL ESTIMATION FOR THE LINEAR MODEL

Regression analysis, in which an equation is derived that connects the value of one dependent variable (Y) to the values of one independent variable X (linear model and some non-linear models), starts with a given bivariate data set and uses the Least Squares Method to assign the best possible values to the unknown multipliers found in the models we wish to estimate. The bivariate data, used to estimate the linear model and some non-linear models, consists of n ordered pairs of values:

$$(x_1, y_1), (x_2, y_2), \dots, (x_n, y_n)$$

The linear model we wish to estimate, using the given data, is:

(1) $y = a + bx$,

while the non-linear models of interest are given by

(2) $y = ke^{cx}$ (Exponential Model)

(3) $y = ax^b$ (Power Model)

(4) and $y = a + bx + cx^2$ (Quadratic Model)

To estimate model (1) we use the Least Squares Methodology, which calls for the formation of the quadratic function:

$$Q(a,b) = \sum_{i=1}^n [y_{\text{actual}} - y_{\text{linearequation}}]^2 = \sum_{i=1}^n [y_i - a - bx_i]^2$$

(5)
$$\sum_{i=1}^n y_i^2 - 2a \sum_{i=1}^n y_i - 2b \sum_{i=1}^n x_i y_i + 2ab \sum_{i=1}^n x_i + b^2 \sum_{i=1}^n x_i^2$$

To derive the “normal” equations for the linear model from which the values of **a** and **b** of the linear model are obtained, we take the partial derivative of Q(a,b) of equation (5) with respect to a and b, set each equal to zero, and then simplify:

The result is:

$$(6) \quad \frac{\partial Q(a,b)}{\partial a} = -2 \sum_{i=1}^n y_i + 2b \sum_{i=1}^n x_i + 2an$$

$$(7) \quad \text{and } \frac{\partial Q(a,b)}{\partial b} = -2 \sum_{i=1}^n x_i y_i + 2a \sum_{i=1}^n x_i + 2b \sum_{i=1}^n x_i^2$$

When (6) and (7) are set equal to zero and simplified, we obtain the “Normal” equations for the linear model:

$$(8) \quad na + b \sum_{i=1}^n x_i = \sum_{i=1}^n y_i$$

$$(9) \quad a \sum_{i=1}^n x_i + b \sum_{i=1}^n x_i^2 = \sum_{i=1}^n x_i y_i$$

The only unknowns in equation (8) and (9) are **a** and **b** and they should be solved for them simultaneously, thus deriving (or estimating) the linear model. This is so because all the other values of equations (8) and (9) come from the given data, where:

n = number of ordered pairs (x_i, y_i)

$\sum_{i=1}^n x_i = x_1 + x_2 + \dots + x_n$ = sum of the x values

$\sum_{i=1}^n y_i = y_1 + y_2 + \dots + y_n$ = sum of the y values

$\sum_{i=1}^n x_i^2 = x_1^2 + x_2^2 + \dots + x_n^2$ = sum of the given x values, which are first squared

$\sum_{i=1}^n x_i y_i = x_1 y_1 + x_2 y_2 + \dots + x_n y_n$ = sum of the products of the x_i and y_i values in each ordered pair.

Note: The values of (a) and (b) obtained from the Normal equations correspond to a minimum value for the Quadratic function Q(a,b) given by equation (5), as can be easily demonstrated by using the Optimization methodology of Differential Calculus for functions of 2 independent variables.

To complete the Estimation of the Linear model we need to find the standard deviation for a, $\sigma(a)$, and b, $\sigma(b)$, which are needed for testing of the significance of the model. The standard deviations, $\sigma(a)$, and $\sigma(b)$, are given by:

$$(10) \quad \sigma(a) = \frac{\hat{\sigma}}{\sqrt{n}} \left[\frac{\sum_{i=1}^n x_i^2}{\sum_{i=1}^n (x_i - \bar{x})^2} \right]^{1/2} = \frac{\hat{\sigma}}{\sqrt{n}} \left[\frac{\sum_{i=1}^n x_i^2}{\sum_{i=1}^n x_i^2 - \frac{\left(\sum_{i=1}^n x_i \right)^2}{n}} \right]^{1/2}$$

$$(11) \quad \text{and} \quad \sigma(b) = \frac{\hat{\sigma}}{\left[\sum_{i=1}^n (x_i - \bar{x})^2 \right]^{1/2}},$$

$$(12) \quad \text{where: } \hat{\sigma} = \left[\frac{\sum_{i=1}^n y_i^2 - a \sum_{i=1}^n y_i - b \sum_{i=1}^n x_i y_i}{n-2} \right]^{1/2}$$

The **a** and **b** in equation (12) come from the solution of equations (8) and (9) while

$\sum_{i=1}^n y_i^2$, $\sum_{i=1}^n y_i$, and $\sum_{i=1}^n x_i y_i$ come directly from the given bivariate data.

MODEL TESTING

Now that our model of interest has been estimated, we need to test for the significance of the terms found in the estimated model. This is very important because the results of this testing will determine the final equation which will be retained and used for Forecasting purposes.

Testing of the Linear model consists of the following steps:

Testing for the significance of each term separately

Here we test the hypotheses: 1) $H_0: \beta = 0$ vs $H_1: \beta \neq 0$ and 2) $H_0: \alpha = 0$ vs. $H_1: \alpha \neq 0$, based on our knowledge of b , $\sigma(b)$, a , and $\sigma(a)$.

If $n \geq 30$, we calculate $Z_b^* = \frac{b}{\sigma(b)}$ and $Z_a^* = \frac{a}{\sigma(a)}$ and compare each to $Z_{\alpha/2}$ (where $Z_{\alpha/2}$ is a value obtained from the standard Normal Table when α (or $1 - \alpha$) is specified.)

(For example if $\alpha = 0.05$, $Z_{\alpha/2} = Z_{0.025} = 1.96$; if $\alpha = 0.10$, $Z_{\alpha/2} = Z_{0.05} = 1.645$; if $\alpha = 0.02$, $Z_{\alpha/2} = Z_{0.01} = 2.33$ and if $\alpha = 0.01$, $Z_{\alpha/2} = Z_{0.005} = 2.58$).

If $Z_b^* > Z_{\alpha/2}$ (or $Z_b^* < -Z_{\alpha/2}$), the hypothesis $H_0: \beta = 0$ is rejected and we conclude that $\beta \neq 0$ and the term bx (in the estimated model $\hat{y} = a + bx$) is important for the calculation of the value of y . Similarly, if $Z_a^* > Z_{\alpha/2}$ (or $Z_a^* < -Z_{\alpha/2}$), $H_0: \alpha = 0$ is rejected, and we conclude that the linear equation $\hat{y} = a + bx$ does not go through the origin.

If $n < 30$, we calculate $t_b^* = \frac{b}{\sigma(b)}$ and $t_a^* = \frac{a}{\sigma(b)}$ and compare each to $t_{n-2(\alpha/2)}$ for a given α value,

where $t_{n-2(\alpha/2)}$ is obtained from the t-distribution table, with the same interpretation for $H_0: \beta = 0$ and $H_0: \alpha = 0$ as above.

But, instead of hypothesis testing, we can construct Confidence Intervals for β and α using the equations:

- (13) $P[b - Z_{\alpha/2}\sigma(b) \leq \beta \leq b + Z_{\alpha/2}\sigma(b)] = 1 - \alpha$
 (14) and $P[a - Z_{\alpha/2}\sigma(a) \leq \alpha \leq a + Z_{\alpha/2}\sigma(a)] = 1 - \alpha$, if $n \geq 30$,
 (15) or: $P[b - t_{n-2(\alpha/2)}\sigma(b) \leq \beta \leq b + t_{n-2(\alpha/2)}\sigma(b)] = 1 - \alpha$
 (16) and $P[a - t_{n-2(\alpha/2)}\sigma(a) \leq \alpha \leq a + t_{n-2(\alpha/2)}\sigma(a)] = 1 - \alpha$, if $n < 30$

If the hypothesized values: $\beta = 0$ falls inside the Confidence Intervals given by equations (13) or (15), or $\alpha = 0$ falls inside the Confidence Intervals given by equations (14) or (16), the corresponding hypotheses H_0 : $\beta = 0$ and H_0 : $\alpha = 0$ are not rejected and we conclude that $\beta = 0$ (and $b = 0$ and the term bx is not important for the calculation of y) and $\alpha = 0$ (i.e. $a = 0$ and the line goes through zero). If for a given data set, we performed the above-discussed tests, we will obtain one of 4 possible conclusions:

- A) H_0 : $\beta = 0$ and H_0 : $\alpha = 0$ are both rejected; Therefore $\beta \neq 0$, and $\alpha \neq 0$, and both the terms a and bx are important to the calculation of y . In this case the final equation is $\hat{y} = a + bx$, with both terms staying in the equation.
 B) H_0 : $\beta = 0$ is rejected, but H_0 : $\alpha = 0$ is not rejected. Therefore $\beta \neq 0$ but $\alpha = 0$ and the term a is not important to the calculation of y . In this case the final equation is $\hat{y} = bx$, with the term a dropping out of the equation.
 C) H_0 : $\beta = 0$ is not rejected but H_0 : $\alpha = 0$ is rejected. Therefore $\beta = 0$ and the term bx is not important for the calculation of y , while $a \neq 0$ and is important to the calculation of y . In this case the final equation is $\hat{y} = a$, with the term bx dropping out of the equation
 D) H_0 : $\beta = 0$ and H_0 : $\alpha = 0$ are both not rejected; Therefore $\beta = 0$, and $\alpha = 0$, and both terms a and bx are not important to the calculation of y . In this case the final equation will be $\hat{y} = 0$, with both terms a and bx dropping out of the equation.

Testing for the Significance of the Entire Linear Equation

This test consists of testing the hypothesis:

H_0 : $\alpha = \beta = 0$ vs H_1 : α and β are not both equal to 0
 or

H_0 : The Entire Regression equation is not significant
 vs

H_1 : The Entire Regression equation is significant

For a given bivariate data set and a given α value, we need to first calculate:

$$(17) \quad \text{TOTAL SUM OF SQUARES: TSS} = \sum_{i=1}^n (y_i - \bar{y})^2 = \sum_{i=1}^n y_i^2 - \frac{\left(\sum_{i=1}^n y_i\right)^2}{n}$$

$$(18) \quad \text{REGRESSION SUM OF SQUARES} = RSS_b = \sum_{i=1}^n (\hat{y}_i - \bar{y})^2 = b^2 \sum_{i=1}^n (x_i - \bar{x})^2$$

$$= b^2 \left[\sum_{i=1}^n x_i^2 - \frac{\left(\sum_{i=1}^n x_i \right)^2}{n} \right]$$

$$(19) \quad \text{ERROR SUM OF SQUARES} = \text{ESS} = \sum_{i=1}^n (y_i - \hat{y})^2 = Q^* = \sum_{i=1}^n y_i^2 - a \sum_{i=1}^n y_i - b \sum_{i=1}^n x_i y_i$$

$$(20) \quad \text{SUM OF SQUARES DUE TO THE CONSTANT} = \text{SS}_a = \frac{\left(\sum_{i=1}^n y_i \right)^2}{n}$$

Then we calculate:

$$(21) \quad F_{Total}^* = \frac{(\text{RSS}_b + \text{SS}_a) / 2}{\text{ESS} / n - 2}$$

and compare F_{Total}^* to $F_{n-2}^2(\alpha)$, which is a tabulated value, for a specified α value. If $F_{Total}^* > F_{n-2}^2(\alpha)$, we reject H_0 and conclude that the entire regression equation (i.e. $\hat{y} = a + bx$) or that both the constant term a , and the factor x (and term bx) are significant to the calculation of the y value, simultaneously.

Note 1: When TSS, RSS_b , and ESS are known, we can also define the coefficient of determination R^2 , where:

$$(22) \quad R^2 = \frac{\text{RSS}_b}{\text{TSS}} = 1 - \frac{\text{ESS}}{\text{TSS}} \quad (\text{where } 0 \leq R^2 \leq 1)$$

which tells us how well the regression equation $\hat{y} = a + bx$ fits the given bivariate data. A value of R^2 close to 1 implies a good fit.

$$(23) \quad \text{Note 2: } r = \text{correlation coefficient} = \sqrt{R^2}$$

A Bivariate Example

A sample of 5 adult men for whom heights and weights are measured gives the following results:

$x = H$	$y = W$	$x^2 = H^2$	$y^2 = W^2$	$xy = HW$
64	130	64^2	130^2	64×130
65	145	65^2	145^2	65×145
66	150	66^2	150^2	66×150
67	165	67^2	165^2	67×165
68	170	68^2	170^2	68×170

Given bivariate data set

For this Bivariate Data set we have: $n = 5$

$$\sum_{i=1}^5 x_i = 64 + 65 + 66 + 67 + 68 = 330$$

$$\sum_{i=1}^5 x_i^2 = 64^2 + 65^2 + 66^2 + 67^2 + 68^2 = 21,790$$

$$\sum_{i=1}^5 y_i = 130 + 145 + 150 + 165 + 170 = 760$$

$$\sum_{i=1}^5 y_i^2 = 130^2 + 145^2 + 150^2 + 165^2 + 170^2 = 116,550$$

$$\sum_{i=1}^5 x_i y_i = (64 \times 130) + (65 \times 145) + (66 \times 150) + (67 \times 165) + (68 \times 170) = 50,260$$

To obtain the linear equation $\hat{y} = a + bx$, we substitute the values of:

$$n, \sum_{i=1}^5 x_i, \sum_{i=1}^5 x_i^2, \sum_{i=1}^5 x_i y_i \text{ to equations (8) and (9) and obtain:}$$

$$5a + 330b = 760$$

$$330a + 21,790b = 50,260$$

When these equations are solved simultaneously we obtain: $a = -508$ and $b = 10$, and the regression equation is:

$\hat{y} = a + bx = -508 + 10x$. Then, using the values of $a = -508$, $b = 10$, and $\sum_{i=1}^5 y_i$, $\sum_{i=1}^5 y_i^2$ and $\sum_{i=1}^5 x_i y_i$ we obtain

from equation (12):

$$\hat{\sigma} = \left[\frac{116,550 - (-508)(760) - (10)(50,260)}{5 - 2} \right]^{1/2} = \left[\frac{30}{3} \right]^{1/2} = \sqrt{10} = 3.16228$$

and from equations (10) and (11):

$$\sigma(a) = \frac{\sqrt{10}}{\sqrt{5}} \left[\frac{21,790}{21,790 - \frac{(330)^2}{5}} \right]^{1/2} = \sqrt{2} \left[\frac{21,790}{10} \right]^{1/2} = \left[\frac{2 \times 21,790}{10} \right]^{1/2} = \sqrt{4358} = 66.015$$

$$\sigma(b) = \frac{\sqrt{10}}{\left[21,790 - \frac{(330)^2}{5} \right]^{1/2}} = \frac{\sqrt{10}}{[10]^{1/2}} = \frac{\sqrt{10}}{\sqrt{10}} = 1$$

Since $n = 5 < 30$, a and b are distributed as $t_{n-2} = t_3$ variables and when $\alpha = 0.05$,

$$t_3(\alpha/2) = t_3(0.025) = \pm 3.1824.$$

Then the hypotheses: $H_0: \beta = 0$ vs. $H_1: \beta \neq 0$, and $H_0: \alpha = 0$ vs. $H_1: \alpha \neq 0$ are both rejected because:

$$t_a^* = \frac{a}{\sigma(a)} = \frac{-508}{66.015} = -7.695 < -3.1824 \text{ and: } t_b^* = \frac{b}{\sigma(b)} = \frac{10}{1} = 10 > 3.1824.$$

Therefore, the final equation is $\hat{y} = a + bx = -508 + 10x$.

To test for the significance of the entire equation, and to calculate the coefficient of determination, we first evaluate TSS, RSS_b , ESS, and SS_a , using equations (17) – (20) and obtain:

$$TSS = 116,550 - \frac{(760)^2}{5} = 1030$$

$$RSS_b = 10^2 \left[21,790 - \frac{(330)^2}{5} \right] = 10^2(10) = 1000$$

$$ESS = 116,550 - (-508)(760) - 10(50,260) = 30$$

$$SS_a = \frac{(760)^2}{5} = 115,520$$

From equation (22) we obtain $R^2 = \frac{1000}{1030} \approx 0.971$, which tells us that 97% of the variation in the values of Y

can be explained (or are accounted for) by the variable X included in the regression equation and only 3% is due to other factors. Since R^2 is close to 1, the fit of the equation to the data is very good.

Note: The correlation coefficient r, which measures the strength of the linear relationship between Y and X is related to the coefficient of determination by: $r = \sqrt{R^2} = \sqrt{0.97} = 0.985$ for this example. Clearly X and Y are very strongly linearly related.

Using equation (21) we obtain:

$$F_{Total}^* = \frac{(RSS_b + SS_a) / 2}{ESS / n - 2} = \frac{(1000 + 115,520) / 2}{30 / 3} = \frac{58,260}{10} = 5,826$$

When F_{Total}^* is compared to $F_{n-2}^2(\alpha) = F_3^2(\alpha) = \begin{cases} 10.13 & \text{if } \alpha = 0.05 \\ 34.12 & \text{if } \alpha = 0.01 \end{cases}$

H_0 (= The entire regression equation is not significant) is rejected, and we conclude that the entire regression equation is significant.

MINITAB SOLUTION TO THE LINEAR REGRESSION PROBLEM

We enter the given data and issue the regression command as shown:

```
MTB > Set C1
DATA> 64 65 66 67 68
DATA> end
MTB > set C2
DATA> 130 145 150 165 170
DATA> end
MTB > Name C1 'X' C2 'Y'
MTB > REGRESS 'Y' 1 'X'
```

and obtain the MINITAB output:

Regression Analysis: Y versus X

The regression equation is

$$Y = -508 + 10.0 X$$

Predictor	Coef	SE Coef	T	P
Constant	-508.00	66.02	-7.70	0.005
X	10.000	1.000	10.00	0.002

S = 3.162 R-Sq = 97.1% R-Sq(adj) = 96.1%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	1000.0	1000.0	100.00	0.002
Residual Error	3	30.0	10.0		
Total	4	1030.0			

```
MTB > CORRELATE C2 C1
```

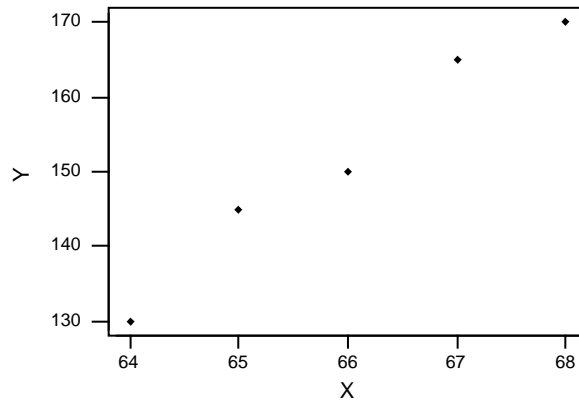
Correlations: Y, X

Pearson correlation of Y and X = 0.985

P-Value = 0.002

MTB > PLOT C2 * C1

Plot Y * X



When we compare the MINITAB and hand solutions, they are identical. We obtain the same equation $\hat{y} = -508 + 10x$, the same standard deviations for **a** and **b** (under SE Coefficient) and the same t values, the same R^2 , the same $s = \hat{\sigma}$ and $\hat{\sigma}^2 = 10$. Notice also that an Analysis of Variance table provides the values for RSS_b , ESS, and TSS. The only value missing is SS_a , which can be easily calculated from

$$SS_a = \frac{\left(\sum_{i=1}^n y_i \right)^2}{n}.$$

The MINITAB solution also gives a p-value for each coefficient. The p-value is called the “Observed Level of Significance” and represents the probability of obtaining a value more extreme than the value of the test statistic. For example the p-value for the predictor X is calculated as $p = 0.002$, and it is given by:

$$(24) \quad \text{p-value} = P(t > t^* = 10) = \int_{10}^{\infty} f(t) dt = 0.002$$

The p-value has the following connection to the selected α -value.

If $p \geq \alpha$, do not reject H_0

If $p < \alpha$, reject H_0

Since $p = 0.002 < \alpha = 0.05$, $H_0 : \beta = 0$ will be rejected.

Introduction and Model Estimation for Some Non-Linear Models of Interest

Sometimes two variables are related but their relationship is not linear and trying to fit a linear equation to a data set that is inherently non-linear will result in a bad-fit. But, because non-linear regression is, in general, much more difficult than linear regression, we explore in this part of the paper estimation methods that will allow us to

fit non-linear equations to a data set by using the results of linear regression which is much easier to understand and analyze.

This becomes possible by first performing logarithmic transformations of the non-linear equations, which change the non-linear into linear equations, and then using the normal equations of the linear model to generate the normal equations of the “linearized” non-linear equations, from which the values of the unknown model parameters can be obtained. In this paper we show how the exponential model, $\hat{y} = ke^{cx}$, and the power model, $\hat{y} = ax^b$ (for $b \neq 1$) can be easily estimated by using logarithmic transformations to first derive the linearized version of the above non-linear equations, namely:

$$\ln \hat{y} = \ln k + cx \quad \text{and} \quad \ln \hat{y} = \ln a + b \ln x,$$

and then comparing these to the original linear equation, $\hat{y} = a + bx$, and its normal equations (see equations (8) and (9)).

Also discussed is the quadratic model, $\hat{y} = a + bx + cx^2$ which, even though is a non-linear model, can be discussed directly using the linear methodology. But now we have to solve simultaneously a system of 3 equations in 3 unknowns, because the normal equations for the quadratic model become:

$$(25) \quad \begin{aligned} na + b \sum_{i=1}^n x_i + c \sum_{i=1}^n x_i^2 &= \sum_{i=1}^n y_i \\ a \sum_{i=1}^n x_i + b \sum_{i=1}^n x_i^2 + c \sum_{i=1}^n x_i^3 &= \sum_{i=1}^n x_i y_i \\ a \sum_{i=1}^n x_i^2 + b \sum_{i=1}^n x_i^3 + c \sum_{i=1}^n x_i^4 &= \sum_{i=1}^n x_i^2 y_i \end{aligned}$$

A procedure is also discussed which allows us to fit these four models (i.e. linear, exponential, power, quadratic), and possibly others, to the same data set, and then select the equation which fits the data set “best”. These four models are used extensively in forecasting and, because of this, it is important to understand how these models are constructed and how MINITAB can be used to estimate such models efficiently.

The Linear Model and its Normal Equations

The linear model and the normal equations associated with it as explained above, are given by:

Linear Model

$$(1) \quad y = a + bx$$

Normal Equations

$$(8) \quad na + b \sum_{i=1}^n x_i = \sum_{i=1}^n y_i$$

$$(9) \quad a \sum_{i=1}^n x_i + b \sum_{i=1}^n x_i^2 = \sum_{i=1}^n x_i y_i$$

The Exponential Model

The exponential model is defined by the equation:

$$(26) \quad y = ke^{cx}$$

Our objective is to use the given data to find the best possible values for k and c, just as our objective in equation (1) was to use the data to find the best (in the least-square sense) values for a and b.

Taking natural logarithms (i.e. logarithms to the base e) of both sides of equation (26) we obtain

$$(27) \quad \begin{array}{ll} \ln(y = ke^{cx}) \\ \text{or:} & \ln y = \ln(ke^{cx}) \end{array}$$

Logarithmic Laws To simplify equation (27), we have to use some of the following laws of logarithms:

$$(28) \quad \log(A \cdot B) = \log A + \log B$$

$$(29) \quad \log(A/B) = \log A - \log B$$

$$(30) \quad \log(A^n) = n \log A$$

Then, using equation (28) we can re-write equation (27) as:

$$(31) \quad \ln y = \ln k + \ln e^{cx},$$

and, by applying equation (30) to the second term of the right hand side of equation (31), equation (31) can be written finally as:

$$(32) \quad \begin{array}{ll} \ln y = \ln k + cx (\ln e) \\ \text{or:} & \ln y = \ln k + cx \quad (\text{because } \ln e = \log_e e = 1) \end{array}$$

Even though equation (26) is non-linear, as can be verified by plotting y against x , equation (32) is linear (i.e. the logarithmic transformation changed equation (26) from non-linear to linear) as can be verified by plotting: $\ln y$ against x .

But, if equation (32) is linear, it should be similar to equation (1), and must have a set of normal equations similar to the normal equations of the linear model (see equations (8) and (9)).

Question: How are these normal equations going to be derived?

Answer: We will compare the “transformed linear model”, i.e. equation (32), to the actual linear model (equation (1)), note the differences between these two models, and then make the appropriate changes to the normal equations of the linear model to obtain the normal equations of the “transformed linear model”.

Comparison of the Logarithmic Transformed Exponential Model to the Linear Model

To make the comparison easier, we list below the 2 models under consideration, namely:

$$\begin{array}{ll} (1) & \text{a) Original Linear Model:} \quad y = a + bx \\ (32) & \text{b) Transformed Linear Model:} \quad \ln y = \ln k + cx \end{array}$$

Comparing equations (1) and (32), we note the following three differences between the two models:

- i. y in equation (1) has been replaced by $\ln y$ in equation (32)
- ii. a in equation (1) has been replaced by $\ln k$ in equation (32)
- iii. b in equation (1) has been replaced by c in equation (32)

Normal Equations of Exponential Model

When the three changes listed above are applied to the normal equations of the actual linear model (equations (8) and (9)), we will obtain the normal equations of the “transformed model”. The normal equations of the “transformed linear model” are:

$$(33) \quad n(\ln k) + c \sum_{i=1}^n x_i = \sum_{i=1}^n \ln y_i$$

$$(34) \quad (\ln k) \sum_{i=1}^n x_i + c \sum_{i=1}^n x_i^2 = \sum_{i=1}^n x_i (\ln y_i)$$

In equations (33) and (34) all the quantities are known numbers, derived from the given data as will be shown later, except for: $\ln k$ and c , and equations (33) and (34) must be solved simultaneously for $\ln k$ and c .

Suppose that for a given data set, the solution to equations (33) and (34) produced the values:

$$(35) \quad \ln k = 0.3 \quad \text{and} \quad c = 1.2$$

If we examine the exponential model (equation (26)), we observe that the value of $c = 1.2$ can be substituted directly into equation (26), but we do not yet have the value of k ; instead we have the value of $\ln k = 0.3$!

Question: If we know: $\ln k = 0.3$, how do we find the value of k ?

Answer: If $\ln k = 0.3$, then: $k = e^{0.3} \approx (2.718281828)^{0.3} \approx 1.349859$

Therefore, now that we have both the k and c values, the non-linear model, given by equation (26), has been completely estimated.

The Power Model

Another non-linear model, which can be analyzed in a similar manner, is the Power Model defined by the equation:

$$(36) \quad y = ax^b$$

which is non-linear if $b \neq 1$ and, as before, we must obtain the best possible values for a and b (in the least-square sense) using the given data.

Logarithmic Transformation of Power Model

A logarithmic transformation of equation (36) produces the “transformed linear model”

$$(37) \quad \ln y = \ln a + b \ln x$$

When equation (37) is compared to equation (1), we note the following 3 changes:

- i. y in equation (1) has been replaced by $\ln y$ in equation (37)
- ii. a in equation (1) has been replaced by $\ln a$ in equation (37)
- iii. x in equation (1) has been replaced by $\ln x$ in equation (37)

(38)

When the changes listed in (38) are substituted into equations (8) and (9), we obtain the normal equations for this “transformed linear model” which are given by equations (39) and (40) below:

Normal Equations of Power Model

$$(39) \quad n(\ln a) + b \sum_{i=1}^n \ln x_i = \sum_{i=1}^n \ln y_i$$

$$(40) \quad (\ln a) \sum_{i=1}^n \ln x_i + b \sum_{i=1}^n (\ln x_i)^2 = \sum_{i=1}^n (\ln x_i)(\ln y_i)$$

Equations (39) and (40) must be solved simultaneously for $(\ln a)$ and b .

If $\ln a = 0.4$, then $a = e^{0.4} \approx (2.718251828)^{0.4} \approx 1.491825$ and, since we have numerical values for both a and b , the non-linear model defined by equation (36) has been completely estimated.

Derivation of the normal equations for the Quadratic model, $y = a + bx + cx^2$

To derive the normal equations of the quadratic model, first form the function

$$(41) \quad Q(a,b,c) = \sum_{i=1}^n [y_i - a - bx_i - cx_i^2]^2$$

Then take the partial derivatives: $\frac{\partial Q}{\partial a}$, $\frac{\partial Q}{\partial b}$, $\frac{\partial Q}{\partial c}$, and set each equal to 0, to obtain the 3 equations needed to

solve for a , b , c .

We obtain:

$$\frac{\partial Q}{\partial a} = +2 \sum_{i=1}^n [y_i - a - bx_i - cx_i^2] (-1) = 0, \text{ or:}$$

$$(42) \quad na + b \sum_{i=1}^n x_i + c \sum_{i=1}^n x_i^2 = \sum_{i=1}^n y_i$$

$$\frac{\partial Q}{\partial b} = +2 \sum_{i=1}^n [y_i - a - bx_i - cx_i^2] (-x_i) = 0, \text{ or:}$$

$$(43) \quad a \sum_{i=1}^n x_i + b \sum_{i=1}^n x_i^2 + c \sum_{i=1}^n x_i^3 = \sum_{i=1}^n x_i y_i$$

$$\frac{\partial Q}{\partial c} = +2 \sum_{i=1}^n [y_i - a - bx_i - cx_i^2] (-x_i^2) = 0, \text{ or:}$$

$$(44) \quad a \sum_{i=1}^n x_i^2 + b \sum_{i=1}^n x_i^3 + c \sum_{i=1}^n x_i^4 = \sum_{i=1}^n x_i^2 y_i$$

Equations (42), (43), and (44) are identical to equation (25).

Data Utilization in Estimating the 4 Models

To generate the quantities needed to estimate the 4 models:

- The Linear Model
- The Exponential Model
- The Power Model,
- The Quadratic Model,

the given (x, y) bivariate data must be “manipulated” as shown in Tables: 1, 2, 3, and 4, respectively.

(a) Given Data

x	y	xy	x^2
x_1	y_1	$x_1 y_1$	x_1^2
x_2	y_2	$x_2 y_3$	x_2^2
x_3	y_3	$x_3 y_4$	x_3^2
...
x_n	y_n	$x_n y_n$	x_n^2
$\sum_{i=1}^n x_i$	$\sum_{i=1}^n y_i$	$\sum_{i=1}^n x_i y_i$	$\sum_{i=1}^n x_i^2$
N_1	N_2	N_3	N_4

Table 1 Manipulation of Given Data to Evaluate the Linear Model

To evaluate $y = a + bx$ substitute: N_1, N_2, N_3, N_4 into equations (8) and (9) and solve for a and b simultaneously.

(b) Given Data

x	y	x^2	$y \ln$	$x \ln y$
x_1	y_1	x_1^2	$y_1 \ln$	$x_1 \cdot \ln y_1$
x_2	y_2	x_2^2	$y_2 \ln$	$x_2 \cdot \ln y_2$
x_3	y_3	x_3^2	$y_3 \ln$	$x_3 \cdot \ln y_3$
...
x_n	y_n	x_n^2	$y_n \ln$	$x_n \cdot \ln y_n$
$\sum_{i=1}^n x_i$	$\sum_{i=1}^n y_i$	$\sum_{i=1}^n x_i^2$	$\sum_{i=1}^n \ln y_i$	$\sum_{i=1}^n x_i \ln y_i$
N_5	N_6	N_7	N_8	N_9

Table 2 Manipulation of Given Data to Evaluate the Exponential Model

To evaluate $y = ke^{cx}$, substitute N_5 , N_7 , N_8 , N_9 into equations (33) and (34) and solve for $\ln k$ and c simultaneously.

(c) Given Data

x	y	$\ln x$	$(\ln x)^2$	$(\ln x)(\ln y)$	$\ln y$
x_1	y_1	$\ln x_1$	$(\ln x_1)^2$	$(\ln x_1)(\ln y_1)$	$\ln y_1$
x_2	y_2	$\ln x_2$	$(\ln x_2)^2$	$(\ln x_2)(\ln y_2)$	$\ln y_2$
x_3	y_3	$\ln x_3$	$(\ln x_3)^2$	$(\ln x_3)(\ln y_3)$	$\ln y_3$
...
x_n	y_n	$\ln x_n$	$(\ln x_n)^2$	$(\ln x_n)(\ln y_n)$	$\ln y_n$
$\sum_{i=1}^n x_i$	$\sum_{i=1}^n y_i$	$\sum_{i=1}^n \ln x_i$	$\sum_{i=1}^n (\ln x_i)^2$	$\sum_{i=1}^n (\ln x_i)(\ln y_i)$	$\sum_{i=1}^n \ln y_i$
N_{10}	N_{11}	N_{12}	N_{13}	N_{14}	N_{15}

Table 3 Manipulation of Given Data to Evaluate the Power Model

To evaluate $y = ax^b$, substitute N_{12} , N_{13} , N_{14} , N_{15} into equations (39) and (40) and solve simultaneously for $(\ln a)$ and b .

(d) Given Data

x	y	x^2	x^3	xy	x^4	x^2y
x_1	y_1	x_1^2	x_1^3	x_1y_1	x_1^4	$x_1^2y_1$
x_2	y_2	x_2^2	x_2^3	x_2y_2	x_2^4	$x_2^2y_2$
x_3	y_3	x_3^2	x_3^3	x_3y_3	x_3^4	$x_3^2y_3$
...
x_n	y_n	x_n^2	x_n^3	x_ny_n	x_n^4	$x_n^2y_n$
$\sum_{i=1}^n x_i$	$\sum_{i=1}^n y_i$	$\sum_{i=1}^n x_i^2$	$\sum_{i=1}^n x_i^3$	$\sum_{i=1}^n x_iy_i$	$\sum_{i=1}^n x_i^4$	$\sum_{i=1}^n x_i^2y_i$
N_{16}	N_{17}	N_{18}	N_{19}	N_{20}	N_{21}	N_{22}

Table 4 Manipulation of Given Data to Evaluate the Quadratic Model

To evaluate $y = a + bx + cx^2$, substitute N_{16} , N_{17} , N_{18} , N_{19} , N_{20} , N_{21} , N_{22} into equations (42), (43), and (44), and solve simultaneously for a , b , and c .

SELECTING THE BEST-FITTING MODEL

Given a data set (x_i, y_i) , we have shown how to fit to such a data set four different models, namely:

(45) i) Linear: $\hat{y}_i = a + bx_i$

(46) ii) Exponential: $\hat{y}_i = ke^{cx_i}$

(47) iii) Power: $\hat{y}_i = ax_i^b$

(48) iv) Quadratic: $\hat{y}_i = a + bx_i + cx_i^2$

We might decide to fit all four models to the same data set if, after examining the scatter diagram of the given data set, we are unable to decide which of the “4 models appears to fit the data BEST.”

But, after we fit the 4 models, how can we tell which model fits the data best? To answer this question, we calculate the “variance of the residual values” for each of the models, and then “select as the best model” the one with the smallest variance of the residual values. 5(b) Calculating the residual values of each model and their variance.

Use each x_i value, of the given data set (x_i, y_i) , to calculate the \hat{y}_i value, from the appropriate model, and then for each i , form the residual:

Residual of observations = $(y_i - \hat{y}_i)$, for each i .

Then the variance of the residual values is defined by:

$$(50) \quad V(\text{Residual}) = \frac{1}{DOF} \sum_{i=1}^n (y_i - \hat{y}_i)^2,$$

where $DOF = \text{Degrees of Freedom}$.

Note: The DOF are $DOF = n - 2$ for the first three models (Linear, Exponential, Power) due to the fact that each of these 3 models has 2 unknown quantities that need to be evaluated from the data (a and b , k and c , and a and b , respectively) and, as a consequence, 2 degrees of freedom are lost. For the Quadratic model, $DOF = n - 3$ because the model has 3 unknown quantities that need to be estimated and, as a consequence, 3 degrees of freedom are lost.

Using equation (50) to calculate the variance of the residuals for each of the 4 models, we obtain:

$$(51) \quad V(\text{Residual})_{\text{Linear}} = \frac{1}{n-2} \sum_{i=1}^n (y_i - a - bx_i)^2$$

$$(52) \quad = \frac{1}{n-2} \left[(y_1 - a - bx_1)^2 + (y_2 - a - bx_2)^2 + \dots + (y_n - a - bx_n)^2 \right]$$

$$(53) \quad V(\text{Residual})_{\text{Exponential}} = \frac{1}{n-2} \sum_{i=1}^n (y_i - ke^{cx_i})^2$$

$$(54) \quad = \frac{1}{n-2} \left[(y_1 - ke^{cx_1})^2 + (y_2 - ke^{cx_2})^2 + \dots + (y_n - ke^{cx_n})^2 \right]$$

$$(55) \quad V(\text{Residual})_{\text{Power}} = \frac{1}{n-2} \sum_{i=1}^n (y_i - ax_i^b)^2$$

$$(56) \quad = \frac{1}{n-2} \left[(y_1 - ax_1^b)^2 + (y_2 - ax_2^b)^2 + \dots + (y_n - ax_n^b)^2 \right]$$

$$(57) \quad V(\text{Residual})_{\text{Quadratic}} = \frac{1}{n-3} \sum_{i=1}^n (y_i - a - bx_i - cx_i^2)^2$$

$$(58) \quad = \frac{1}{n-3} \left[(y_1 - a - bx_1 - cx_1^2)^2 + (y_2 - a - bx_2 - cx_2^2)^2 + \dots + (y_n - a - bx_n - cx_n^2)^2 \right]$$

After the calculation of the 4 variances from equations: (52), (54), (56), and (58), the model with the “smallest” variance is the model which fits the given data set “best”. We will now illustrate, through an example, how the 4 models we discussed above can be fitted to a given bivariate data set, and then how the “best” model from among them is selected.

An Example:

A sample of 5 adult men for whom heights and weights are measured gives the following results:

#	$X = \text{Height}$	$Y = \text{Weight}$
1	64	130
2	65	145
3	66	150
4	67	165
5	68	170

Problem: Fit the linear, exponential, power, and quadratic models to this bivariate data set and then select as the “best” the model with the smallest variance of the residual values.

Fitting the Linear Model $\hat{y} = a + bx$

To fit the linear model, we must extend the given bivariate data so that we can also calculate $\sum_{i=1}^n x_i^2$ and

$\sum_{i=1}^n x_i y_i$, as shown below:

x^2	x	y	xy
4096	64	130	8320
4225	65	145	9425
4356	66	150	9900
4489	67	165	11055
4624	68	170	11560
$\sum_{i=1}^5 x_i^2 = 21,790$	$\sum_{i=1}^5 x_i = 330$	$\sum_{i=1}^5 y_i = 760$	$\sum_{i=1}^5 x_i y_i = 50,260$

We then substitute the generated data into the normal equations for the linear model, namely equations (8) and (9):

$$na + b \sum_{i=1}^n x_i = \sum_{i=1}^n y_i$$

$$a \sum_{i=1}^n x_i + b \sum_{i=1}^n x_i^2 = \sum_{i=1}^n x_i y_i ,$$

and obtain the equations:

$$5a + 330b = 760$$

$$330a + 21,790b = 50,260$$

When these equations are solved simultaneously for a and b we obtain:

$$a = -508 \text{ and } b = 10$$

Therefore, the linear model is:

$$\hat{y} = a + bx = -508 + 10x$$

The variance of the residual values for the linear model is calculated as shown below:

Given X	Given Y	Calculated Y	Residual	(Residual) ²
x	y	$\hat{y} = -508 + 10x$	$y - \hat{y}$	$(y - \hat{y})^2$
64	130	$-508 + 10(64) = 132$	-2	$(-2)^2 = 4$
65	145	$-508 + 10(65) = 142$	+3	$(+3)^2 = 9$
66	150	$-508 + 10(66) = 152$	-2	$(-2)^2 = 4$
67	165	$-508 + 10(67) = 162$	+3	$(+3)^2 = 9$
68	170	$-508 + 10(68) = 172$	-2	$(-2)^2 = 4$
				$\sum_{i=1}^5 (y_i - \hat{y}_i)^2 = 30$

Therefore, the variance of the residual values, for the linear model is:

$$V(\text{Residual})_{\text{Linear}} = \frac{1}{n-2} \sum_{i=1}^n (y_i - \hat{y}_i)^2 = \frac{1}{5-2} (30) = \frac{30}{3} = 10$$

2. Fitting the Exponential Model $\hat{y} = ke^{cx}$

To fit the exponential model we need to extend the given bivariate data so that we can calculate, in addition to

$\sum_{i=1}^5 x_i = 330$ and $\sum_{i=1}^5 x_i^2 = 21,790$, $\sum_{i=1}^5 \ln y_i$ and $\sum_{i=1}^5 (x_i \ln y_i)$ as shown below:

x^2	x	y	$\ln y$	$x \cdot \ln y$
4096	64	130	4.8675	311.5200
4225	65	145	4.9767	323.4855

4356	66	150	5.011	330.726
4489	67	165	5.1059	342.0953
4624	68	170	5.1358	349.2344
$\sum_{i=1}^5 x_i^2 = 21,790$	$\sum_{i=1}^5 x_i = 330$	$\sum_{i=1}^5 y_i = 760$	$\sum_{i=1}^5 \ln y_i = 25.0966474$	$\sum_{i=1}^5 x_i \cdot \ln y_i = 1657.04468$

We then substitute the generated data into the normal equations for the exponential model (i.e. equations (33) and (34)):

$$n(\ln k) + c \sum_{i=1}^n x_i = \sum_{i=1}^n \ln y_i$$

$$(\ln k) \sum_{i=1}^n x_i + c \sum_{i=1}^n x_i^2 = \sum_{i=1}^n x_i (\ln y_i),$$

and obtain the equations:

$$5 \ln k + 330 c = 25.0967$$

$$330 \ln k + 21,790 c = 1657.0447$$

When these equations are solved simultaneously for $\ln k$ and c , we obtain: $c = 0.06658$ and $\ln k = 0.6251$, or: $k = e^{0.6251} = 1.868432$

Therefore, the exponential model is:

$$\hat{y} = ke^{cx} = 1.868432 e^{0.06658x}$$

(or: $\ln y = \ln k + cx = 0.6251 + 0.06658x$)

Then, the variance of the residual values, for the exponential model, is calculated as shown below:

		$\hat{y} = ke^{cx} = 1.868432 e^{0.06658x}$	$- \hat{y}$	$(y - \hat{y})^2$
64	130	$1.868432 e^{0.06658(64)} = 132.4515$	-2.4515	6.0099
65	145	$1.868432 e^{0.06658(65)} = 141.5703$	3.4297	11.7628
66	150	$1.868432 e^{0.06658(66)} = 151.3169$	-1.3169	1.7324
67	165	$1.868432 e^{0.06658(67)} = 161.7346$	3.2654	10.6630
68	170	$1.868432 e^{0.06658(68)} = 172.8694$	-2.8694	8.2336
				$\sum_{i=1}^5 (y_i - \hat{y}_i)^2 = 38.4035$

Therefore, the variance of the residual values, for the exponential model is:

$$V(\text{Residual})_{\text{Exponential}} = \frac{1}{n-2} \sum_{i=1}^n (y_i - \hat{y}_i)^2 = \frac{1}{n-2} \sum_{i=1}^n (y_i - ke^{cx_i})^2$$

$$= \frac{1}{5-1} \sum_{i=1}^5 [y_i - 1.868432 e^{0.06658x_i}]^2$$

$$= \frac{38.4035}{3} = 12.8017$$

.3 Fitting the Power Model $\hat{y} = ax^b$

To fit the power model we need to extend the given bivariate data set to generate the quantities: $\sum_{i=1}^n \ln x_i$,

$\sum_{i=1}^n (\ln x_i)^2$, $\sum_{i=1}^n \ln y_i$ and $\sum_{i=1}^n (\ln x_i)(\ln y_i)$, and this is accomplished as shown below:

		$\ln x$	$(\ln x)^2$	$\ln y$	$(\ln x)(\ln y)$
4	130	4.158883	17.2963085	4.867553	20.2435
5	145	4.1738727	17.42550908	4.976734	20.7723
6	150	4.189654742	17.55320686	5.010635	20.9928
7	165	4.204692619	17.67944002	5.105945	21.4689
8	170	4.219507705	17.80424527	5.135798	21.6705
		$\sum_{i=1}^5 \ln x_i$ =20.9471	$\sum_{i=1}^5 (\ln x_i)^2$ =87.7581	$\sum_{i=1}^5 \ln y_i$ =25.0967	$\sum_{i=1}^5 (\ln x_i)(\ln y_i)$ =105.1505

We then substitute the generated data into the normal equations of the power model, namely equations (39) and (40):

$$n(\ln a) + b \sum_{i=1}^n \ln x_i = \sum_{i=1}^n \ln y_i$$

$$(\ln a) \sum_{i=1}^n \ln x_i + b \sum_{i=1}^n (\ln x_i)^2 = \sum_{i=1}^n (\ln x_i)(\ln y_i)$$

and obtain the equations:

$$5 \ln a + 20.9471 b = 25.0967$$

$$20.9471 \ln a + 87.7581 b = 105.1505$$

When these equations are solved simultaneously for b and ln a we obtain:

$$b = 4.3766 \text{ and } \ln a = -13.316.$$

Therefore, the “linearized” power model becomes:

$$\ln \hat{y} = \ln a + b \ln x = -13.316 + 4.3766x$$

Then the variance of the residual values for the power model is obtained as shown below:

x	y	$\ln x$	$\ln \hat{y} = \ln a + b \ln x$ = -13.316 + 4.3766x	\hat{y}	$y - \hat{y}$	$(y - \hat{y})^2$
64	130	4.158883	$\ln \hat{y}_1 = 4.885768$	132.3920	-2.3920	5.721664
65	145	4.173873	$\ln \hat{y}_2 = 4.95623$	141.6874	3.3126	10.973319
66	150	4.189655	$\ln \hat{y}_3 = 5.020443$	151.4784	-1.47843	2.185667
67	165	4.204693	$\ln \hat{y}_4 = 5.086258$	161.7833	3.2167	10.347159
68	170	4.219508	$\ln \hat{y}_5 = 5.151097$	172.6208	-2.6208	6.868592
						$\sum_{i=1}^5 (y_i - \hat{y}_i)^2$ = 36.09640

Therefore, the variance of the residuals values for the power model is:

$$V(\text{Residual})_{\text{Power}} = \frac{1}{n-2} \sum_{i=1}^n (y_i - \hat{y}_i)^2$$

$$= \frac{36.0964}{3} = 12.0321$$

4 Fitting the Quadratic Model $\hat{y} = a + bx + cx^2$

To fit the quadratic model, we need to use the given bivariate data set and extend it to generate the quantities:

$$\sum_{i=1}^n X_i = 330; \sum_{i=1}^n X_i^2 = 21,790; \sum_{i=1}^n X_i^3 = 1,439,460; \sum_{i=1}^n X_i^4 = 95,135,074;$$

$$\sum_{i=1}^n Y_i = 760; \sum_{i=1}^n X_i Y_i = 50,260; \sum_{i=1}^n X_i^2 Y_i = 3,325,270$$

We then substitute the generated data into the normal equations of the quadratic model (see equation (25)), and obtain:

$$\begin{aligned} 5a + 330b + 21,790c &= 760 \\ 330a + 21,790b + 1,439,460c &= 50,260 \\ 21,790a + 1,439,460b + 95,135,074c &= 3,325,270 \end{aligned}$$

Solving these 3 equations simultaneously, we obtain:

$$a = -\frac{25,236}{7}; b = \frac{730}{7}; c = -\frac{5}{7}$$

Therefore, the quadratic function $\hat{y} = f(x)$ is given by:

$$\hat{y} = a + bx + cx^2 = \frac{1}{7}[-25,326 + 730x - 5x^2]$$

The variance of the residual values for the quadratic model is calculated as shown below:

x	y	$\hat{y} = \frac{1}{7}[-25,326 + 730x - 5x^2]$	$y_i - \hat{y}_i$	$(y_i - \hat{y}_i)^2$
64	130	$\hat{y}_1 = 130.5714286$	-0.5714286	0.326530644
65	145	$\hat{y}_2 = 142.7142857$	2.2857143	5.224489861
66	150	$\hat{y}_3 = 153.4285714$	-3.4285714	11.75510184
67	165	$\hat{y}_4 = 162.7142857$	2.2857143	5.224489861
68	170	$\hat{y}_5 = 170.5714286$	-0.5714286	0.326530644
				$\sum_{i=1}^5 (y_i - \hat{y}_i)^2 = 22.85714286$

Therefore, the variance of the residual values for the quadratic model is:

$$\begin{aligned} V(\text{Residual})_{\text{Quadratic}} &= \frac{1}{n-3} \sum_{i=1}^5 (y_i - \hat{y}_i)^2 \\ &= \frac{22.85714286}{2} = 11.42857143 \approx 11.4286 \end{aligned}$$

5c.5 Summary of Results and Selection of the “Best” Model

We have fitted the 4 models: linear, exponential, power, and quadratic models, calculated the respective residual variances, and have obtained the following results:

a) The linear model is: $\hat{y} = a + bx = -508 + 10x$, with: $V(\text{Residual})_{\text{Linear}} = 10$

- b) The quadratic model is: $\hat{y} = a + bx + cx^2 = \frac{1}{7}[-25,326 + 730x - 5x^2]$, with:
 $V(\text{Residual})_{\text{Quadratic}} = 11.4286$
- c) The power model is: $\ln \hat{y} = \ln a + b \ln x = -13.316 + 4.3766 \ln x$, with:
 $V(\text{Residual})_{\text{Power}} = 12.0321$
- d) The exponential model is: $\hat{y} = ke^{cx} = 1.868432 e^{0.06658x}$, with:
 $V(\text{Residual})_{\text{Exponential}} = 12.8017$

Since the linear model has the smallest variance of the residual values of the 4 models fitted to the same bivariate data set, the linear model is the “best” model (but the other 3 values are very close). The linear model, therefore, will be selected as the “best” model and used for forecasting purposes.

MINITAB SOLUTIONS

To obtain the MINITAB solutions of the four models we discussed in this paper we do the following:

(a) **To find the MINITAB solution for the linear model:**

```
MTB > SET C1
DATA> 64 65 66 67 68
DATA> END
MTB > SET C2
DATA> 130 145 150 165 170
DATA> END
MTB > NAME C1 'X' C2 'Y'
MTB > REGRESS 'Y' 1 'X'
```

Regression Analysis: Y versus X

The regression equation is

$$Y = -508 + 10.0 X$$

Predictor	Coef	SE Coef	T	P
Constant	-508.00	66.02	-7.70	0.005
X	10.000	1.000	10.00	0.002

S = 3.16228 R-Sq = 97.1% R-Sq(adj) = 96.1%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	1000.0	1000.0	100.00	0.002
Residual Error	3	30.0	10.0		
Total	4	1030.0			

(b) **To find the MINITAB solution for the exponential model:**

```
MTB > SET C1
DATA> 64 65 66 67 68
DATA> END
MTB > SET C2
DATA> 4.8675 4.9767 5.011 5.1059 5.1358
DATA> END
MTB > NAME C1 'X' C2 'Y'
MTB > REGRESS 'Y' 1 'X'
```

Regression Analysis: Y versus X

The regression equation is

$$Y = 0.625 + 0.0666 X$$

Predictor	Coef	SE Coef	T	P
Constant	0.625	0.0666	9.38	0.000
X	0.0666	0.00666	10.0	0.000

Constant	0.6251	0.4925	1.27	0.294
X	0.066580	0.007460	8.92	0.003

S = 0.0235917 R-Sq = 96.4% R-Sq(adj) = 95.2%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	0.044329	0.044329	79.65	0.003
Residual Error	3	0.001670	0.000557		
Total	4	0.045999			

(c) To find the MINITAB solution for the power model:

```
MTB > SET C1
DATA> 4.158883 4.1738727 4.189654742 4.204692619 4.2195077
DATA> END
MTB > SET C2
DATA> 4.867553 4.976734 5.010635 5.105945 5.135798
DATA> END
MTB > NAME C1 'X' C2 'Y'
MTB > REGRESS 'Y' 1 'X'
```

Regression Analysis: Y versus X

The regression equation is

$$Y = -13.3 + 4.38 X$$

Predictor	Coef	SE Coef	T	P
Constant	-13.316	2.069	-6.44	0.008
X	4.3766	0.4939	8.86	0.003

S = 0.0237507 R-Sq = 96.3% R-Sq(adj) = 95.1%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	1	0.044301	0.044301	78.53	0.003
Residual Error	3	0.001692	0.000564		
Total	4	0.045993			

(d) To find the MINITAB solution for the quadratic model:

```
MTB > SET C1
DATA> 64 65 66 67 68
DATA> END
MTB > SET C2
DATA> 4096 4225 4356 4489 4624
DATA> END
MTB > SET C3
DATA> 130 145 150 165 170
DATA> END
MTB > NAME C1 'X1' C2 'X2' C3 'Y'
MTB > REGRESS 'Y' 2 'X1' 'X2'
```

Regression Analysis: Y versus X1, X2

The regression equation is

$$Y = -3618 + 104 X1 - 0.714 X2$$

Predictor	Coef	SE Coef	T	P
Constant	-3618	3935	-0.92	0.455
X1	104.3	119.3	0.87	0.474
X2	-0.7143	0.9035	-0.79	0.512

S = 3.38062 R-Sq = 97.8% R-Sq(adj) = 95.6%

Analysis of Variance

Source	DF	SS	MS	F	P
Regression	2	1007.14	503.57	44.06	0.022
Residual Error	2	22.86	11.43		
Total	4	1030.00			

	Source	DF	Seq SS
X1	1	1000.00	
X2	1	7.14	

CONCLUSIONS

Reviewing our previous discussion we come to the following conclusions:

- a) The Linear Regression problem is relatively easy to solve and can be handled using algebraic methods.
- b) The problem can also be solved easily using available statistical software, like MINITAB.
- c) Even though the solution to Regression problems can be obtained easily using MINITAB (or other statistical software) it is important to know what the hand methodology is and how it solves these problems before you can properly interpret and understand MINITAB's output.
- d) In general, non-linear regression is much more difficult to perform than linear regression.
- e) There are, however, some simple non-linear models that can be evaluated relatively easily by utilizing the results of linear regression.
- f) The non-linear models analyzed in this paper are:
 - I. Exponential Model
 - II. Power Model
 - III. Quadratic Model
- g) A procedure is also discussed which allows us to fit to the same bivariate data set many models (such as: linear, exponential, power, quadratic) and select as the "best fitting" model the model with the "smallest variance of the residuals".
- h) In a numerical example, in which all 4 of these models were fitted to the same bivariate data set, we found that the Linear model was the "best fit", with the Quadratic model "second best". The Power and Exponential models are "third best" and "fourth best" respectively, but are very close to each other.
- i) The evaluation of these models is facilitated considerably by using the statistical software package MINITAB which, in addition to estimating the unknown parameters of the corresponding models, also generates additional information (such as the p-value, standard deviations of the parameter estimators, and R^2).
- j) This additional information allows us to perform hypothesis testing and construct confidence intervals on the parameters, and also to get a measure of the "goodness" of the equation, by using the value of R^2 . A value of R^2 close to 1 is an indication of a good fit.
- k) The MINITAB solution for the linear model shows that both a and b (of $\hat{y} = a + bx = -508 + 10x$) are significant because the corresponding p-values are smaller than $\alpha = 0.05$, while the value of $R^2 = 97.1\%$, indicating that the regression equation explains 97.1% of the variation in the y-values and only 2.9% is due to other factors.
- l) The MINITAB solution for the quadratic model shows that a, b, and c (of $\hat{y} = a + bx + cx^2 = -3,618 + 104.3x + 0.7143x^2$) are individually not significant (because of the corresponding high p-values, but b and c jointly are significant because of the corresponding p-value of $p = 0.022 < \alpha = 0.05$. The value of R^2 is: $R^2 = 97.8\%$.
- m) The MINITAB solution for the power model shows that both a and b (of $\hat{y} = ax^b$ or $\ln y = \ln a + b \ln x = -13.3 + 4.3766 \ln x$) are significant because the corresponding p-values are smaller than $\alpha = 0.05$, while the value of $R^2 = 96.3\%$.
- n) The MINITAB solution for the exponential model shows that the k (in $\hat{y} = ke^{cx} = 1.868432e^{0.06658x}$ or $\ln \hat{y} = \ln k + cx = 0.6251 + 0.06658x$) is not significant because of the corresponding high p-value, while the c is significant because of the corresponding p-value being smaller than $\alpha = 0.05$. The value of $R^2 = 96.4\%$.

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RUSSIAN COMMERCIAL AIRCRAFT INDUSTRY COMPETITIVENESS DEVELOPMENT: APPLICATION OF THE ALTERNATIVE BUSINESS MODEL

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ABSTRACT

The problems of innovative development of the commercial sector of the Russian aviation industry due to the evolving negative situation on the foreign and domestic air transportation market becoming a new focus. A new wave of attention to the issues of import substitution in the Russian engineering industries reinforces the search for the alternative development. The article designated to the problem of the Russian Aircraft Industry competitiveness and productive capacity improvement. It contains the Alternative business model description for the aviation program implementation that presumably could allow increasing the speed and efficiency of production.

Keywords: Aircraft industry, air transportation, innovation, aviation, business model, Russia

INTRODUCTION

The process of new product development is attended with severe difficulties and risks not only in aircraft industry. New product development and market launch is always regulated by the product specificities as well as by the unique features of the core market for which that product is dedicated (specific market niche). About 40% of new products and services fails in the consumer's market, according to this statistics it can be assumed that manufacturers of industrial high-tech products run a significantly bigger risk.

Now when the aircraft industry of the Russian Federation, particularly its commercial sector, is still in depression, in terms of strategic development prospects there is an acute problem of industry competitiveness, which is reflected in the competitiveness of its product. Providing the analysis of the commercial aircraft industry products manufacturing and sales dynamics during the last 10 years, as a result of implementation of the State development strategy of the commercial aircraft industry for the period up to 2015. The objective stated in the Strategy is a fundamental changes of the Russian aircraft industry competitive position. And unfortunately it was not achieved. Increase of the cumulative output in the commercial aircraft industry definitely led to a certain increase of demand for the Russian commercial aircrafts in the global market though, but taking into account the "low base effect" these facts cannot be seriously considered in terms of statistics (Labykin A., 2014).

At first sight, multibillion investments in the Russian commercial aircraft industry did not provide the targeted results, but at the same time aircraft industry was significantly transformed, mastering new cooperation plans and applying innovative principles and technologies of commercial aircraft engineering in Russia. On the one side, significant step forward was done after years of stagnation, and on the other side, the direction and the value of this vector is still to be determined.

For the high-tech industries, such as the commercial aircraft industry, the competitiveness development strategy cannot be simply focused on the achievement of certain formal indicators, both in terms of technical characteristics of the product, and in terms of marketing success performance. The term of competitiveness

(implying achievement of the leading position in the market) must inevitably include research and forecast of a considerably wider scope of issues. In this regard, the following will discuss the specific factors of new developed product in the commercial aircraft industry that should be prioritized, from the economic point of view, in conjunction with the business model tuning

SYSTEM INTEGRATION

The aircraft (in this case a commercial aircraft) is a complex system-based product. Any system can be described as an integrated functional unit, consisting of different interacting elements that have particular functionality. Modern commercial aircraft can consist of many different systems, which will necessarily include a huge number (in terms of other products) of high-tech components. For example, the quantity of all the systems and subsystems on the Airbus A380 exceeds 120. Every system separately is complex itself, but it also should operate correctly and consistently within integrated system in the relatively compressed space in extreme temperature conditions, high vibration load, the impact of various atmospheric conditions, pollution, etc (Hans-Henrich Altfeld, 2011). Modern aircraft is not only the integrator of unique complex systems, it is a part of large-scale air transport system (Zhilkin O., Lopatkin R., 2013).

Apart from that, aircraft operation requires the design and production of such auxiliary systems as training sets, ground support equipment, service support systems. Air transport system includes airports and airfields, supervisory authorities for monitoring of airworthiness requirements, navigation and communication satellite fleets, and aircraft maintenance, repair and overhaul organizations, etc. All these elements play a key role both collectively and discretely.

For this reason commercial aircraft as a product should have much more emphasis on system-wide complexity than on integration of separate complex systems in a certain product. Regardless of the many factors of an economic nature, nevertheless the general understanding is the first step of any analysis. Developer and manufacturer of aircraft (in some cases, independent subjects) should begin the process of formation of competitiveness with a definition of an adequate idea of how the future product will interact with all elements of multi-level air transport system.

ADAPTATION TO CUSTOMER REQUIREMENTS. CUSTOMER ENGINEERING

Commercial airliners, along with cars, are perhaps the most customizable industrial products. Finalization of a passenger compartment to the requirements of the customer is on average about 10% of the total price of the delivered aircraft. The density of the passenger compartment layout and cabin equipment, both in terms of cabin crew systems and passenger entertainment, for the airlines are always extremely important differentiating factor in the market. Accordingly, the need for differentiation increases the demand for customization.

For any aircraft manufacturer several problems must be solved during the design and production process. Configuration and customization of the aircraft under certain requirements creates a significant number of inconsistencies as to what was originally designed. Customization management from the moment of identification of the customer's configuration (CDF, Contractual / Customer Definition Freeze) up to the delivery date of this configuration correctly implemented on the aircraft - this is a very challenging managerial and engineering problem (Townsend C., 2007).

Aircraft manufacturer (OEM), which manages to control these processes, and to solve these problems as soon as possible has the maximum competitive advantage. The management of commercial aviation program in addition to the classic landmarks (time, budget and quality) can distinguish a fourth - the ability to manage the configuration of the product.

Taking into account the experience in the implementation of modern Russian commercial aircraft programs, analyzing the results achieved, we can say that the weaknesses of the Russian commercial aircraft

manufacturers are configuration management and customer engineering. Potential configurable design is based always on preconceptions of the initial stages of design. In this sense two points are very important:

- Strategic analysis of the Industry and market that results in conceptual understanding of the aircraft (the) in terms of its correspondence to the Airlines needs at the moment of the start of production and in the course of its long-term operation (long development cycle of 5-7 years, long life cycle of 15-25 years).
- Launch customer, who plays a significant role similar to the aircraft developer, defining many subtle nuances that would later be incorporated into mass production.

However, Project Management and the cost of development and production of the customized aircraft is also a separate issue, which ideally could be solved with the standard configuration capable of satisfying the widest range of various Airlines business strategies. At this time for the Aviation industry it seems to be an abstract utopia, improvements and engineering, no matter how universal was the standard technical configuration of the newly created aircraft are always required. In this regard, the leading role in the process of creating a product should have a strategy for its further development. In the current situation in the Russian aircraft industry it turns out that the goal of increasing production and sales of all costs is in the foreground. At the same time, the aggregate sales of the Russian commercial aircraft Industry are relatively poor.

ALTERNATIVE BUSINESS-MODEL

Based on the foregoing, we propose to implement within the Commercial aircraft programs alternative (innovative, if I may say so) business model, which should address the issue of increasing the volume of production, and the problem of the efficient implementation of customized configuration. (Fig. 1)

The essence of the proposed scheme is to transform the role of the Aircraft developer and Manufacturer in the production and product promotion processes. The Aircraft developer/manufacturer company takes the responsibility to create a kind of transportation Platform. Thus, the Platform consists of 2 sectors: mandatory systems and customizable areas. The developer of the "Aviation Platform" makes available in the mode of open license all customizable areas of the aircraft forming the free market of potentially large number of "small" companies that are able to develop and organize the production of necessary components for the adaptation of an empty platform for the future operator. Conditionally "small" company, which is engaged in customization as a final system developer can potentially play the role of the seller. At the same time, the support of the product life cycle should remain with the producer of the Platform. Certification of the final product (the aircraft as a system) must be solved in conjunction of a "small" system developer and the platform developer, but with a greater emphasis on the platform developer.

The result is a scheme in which the Platform developer (traditional Commercial Aircraft manufacturer) produces large quantity of unified platform (what is called "Green Aircraft"). So that in this case "Small" engineering companies (system developers) develop the final configuration of the aircraft, after that another actor responsible for the components' production and final assembly of the customized product comes to the fore participating in the process of certification. The issue of the Aircraft final assembly allocation in this case, is at the mercy of the market. From a technological point of view, this kind of the "Platform" retrofit does not go beyond the Commercial Aircraft typical periodic overhauls' scope and complexity, so it is possible to organize such production in cooperation with the Maintenance repair and overhaul service operators.

This scheme for the Commercial Aircraft industry potentially has both advantages and disadvantages. The most important effect that can give such a business model obviously lies in the more powerful multiplier effect both for the industry and the economy as a whole, because such extreme liberalization will certainly be able to give rise to a significant number of intermediary structures. It is also obvious that it will bring an increase in the Aircraft production by minimizing the refractive impact on production cycle, by getting rid of the product unified composition volatility factors. Production and engineering human resource efficiency of the Platform manufacturer are also extremely important.

Among the obvious shortcomings of this model can be mentioned the potential aircraft manufacturer margins lowering. Aircraft companies are traditionally responsible for the entire production process and any delegation of their responsibility deprives a certain opportunity to generate added value. But assuming that, after

all this model allows to increase significantly the rate of production so that we can expect the critical margin changes will not happen.

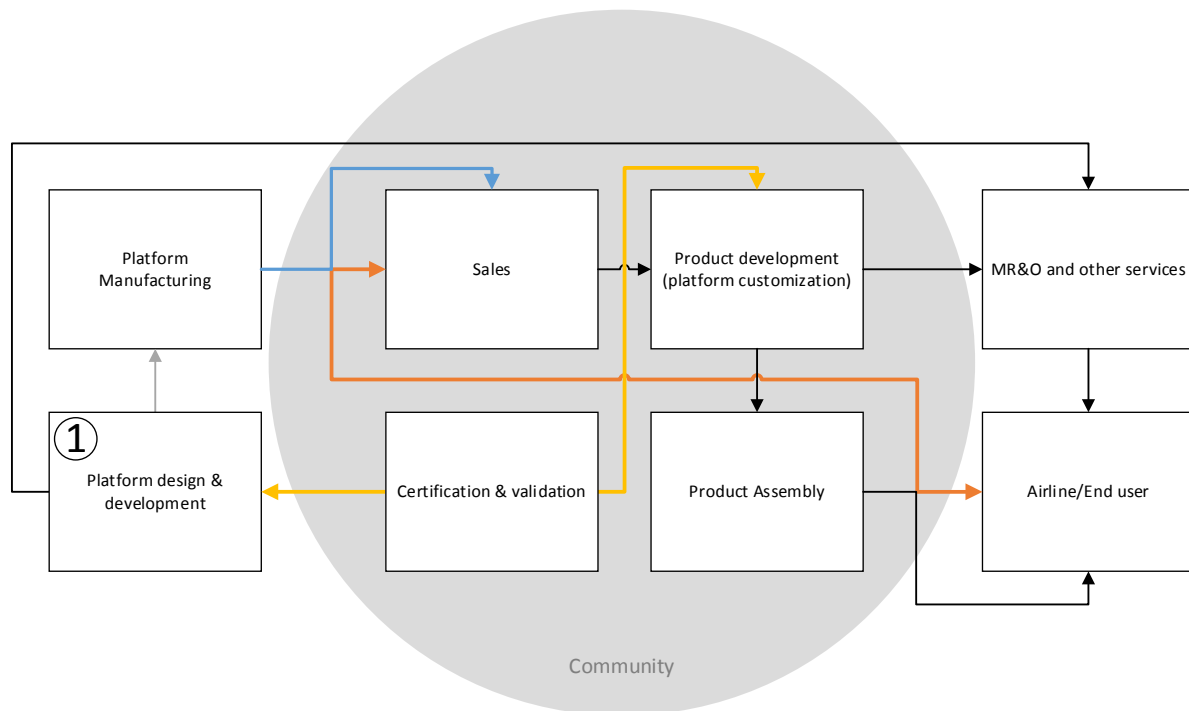


Figure 1. Commercial Aircraft program main actors' interaction within the "alternative" business model.

The implementation of this model is a subject to a certain risks. Among the key risks are - the banal failure of the market to adapt innovative schemes, as well as the quality control of the final product. Even common standards can lead to adverse effects in the decentralized model interpretation. The need for self-regulation system also presents a risk, this type of system requires a solid core (stable pool of companies involved in all stages) and the architect (censor), the implementation of the Platform developer in such a role devalues the model mainly because it is a resource-demanding task.

This model is not meant to be completely original, and certainly requires clarification. Certain decisions mentioned above could be also met in the international and Russian practice. The key element of the model is the proposed rule of System developers' work with exposed platform under open source licenses.

CONCLUSION

Developing productive capacities in the situation of a stagnant Air transport market and the sanctions imposed on the Russian economy, clearly reduce the effectiveness of traditional measures to support the development of production. The use of non-standard concepts can be justified in circumstances where traditional solutions have low efficiency.

The use of the alternative business model, which has been stated above, it is not so much a solution for the development of an individual enterprise as a fundamentally new model of Commercial Aircraft market participants' relationships.

Today in Russia, the functioning of this fairly liberal-minded structure can be difficult. Within the framework of the current legislation of the Russian Federation the implementation of such a system is theoretically possible, but unlikely the Aircraft manufacturers will be ready for such modernization.

The idea of creating an organization that develops Aviation technologies on the principles of open source licenses is based on the positive experiences of the IT Industry. The open license gives many advantages

for both end users and for those who will try to build their own business. Open source is not free. It is obvious, that any organization could use open source solutions while having a specially educated and trained staff to maintain these solutions.

Organizations have the freedom to do anything with the intellectual property received for free, but any work on the project on the base of open source is not free and does not mean the zero cost of implementation. In this particular case open source is the way for the intensive product development. For the Aircraft OEM product development becomes in some sense factually free. Free for the OEM but not free for the Open Source Community, which should (supposedly) be formed of organizations and institutions that adopt traditional OEM responsibilities (diagram 1., highlighting in the grey cycle). Once these organizations are established they will have a real possibility to have a part of the revenue that normally was OEM's prerogative. The only question is OEM's willingness to share they revenue with smaller companies receiving in return a stable production of unified product.

There are also a significant risks to be managed. In fact the commonly listed barriers to the adoption of open source software (the most common example of open source licences implementation) are related to some kind of risk and not to any kind of cost. It is difficult for most organizations to manage all of these risks themselves: the number of people and the range of skills required to do so is prohibitive. For small organizations or low-risk projects these risks can be tolerated, but for larger projects risk management is a significant issue. (James Dixon, Patrick Hart, 2008).

As it can be assumed that the Project related to the Aircraft development should be a kind of a large scale project so every new project in the framework of proposed model is a subject to a certain risk. But the riskiness of the model can be largely justified with the solution to the problem of developing productive capacities and competitiveness.

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PREVENTING BANKRUPTCY AS ONE OF THE POSSIBILITIES FOR SUSTAINABLE FUTURE GROWTH IN BUSINESS AND FINANCE MANAGEMENT

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ABSTRACT

One of the important characteristics of the activities and status of the company is probability of bankruptcy. This article deals with evaluation of the company's probability of bankruptcy and to identify the factors its reducing.

Keywords: Corporate finance management, graphical financial analysis, enterprise financial probability of bankruptcy

INTRODUCTION

Creation of conditions of for sustainable future growth in business and finance management stability in the economy guarantees timely payments to contractors while ensuring a given level of return in time. It is a probability of bankruptcy management issues. Estimating the probability of bankruptcy allows you to identify the factors lowering and raising of bankruptcy. This article continues the solving problems of a financial management lowering of probability of bankruptcy in an enterprise.

RESEARCH APPROACH AND METHODOLOGY

The company financial statement can be described by the following characteristics [12. Zhilkina, 2015, 13. Zhilkina, 2005; 14. Zhilkina, 2008]: Finance stability; Liquidity; Probability of bankruptcy; Financial results and its structure, Structure and effectiveness of capital investment, Structure and efficiency of the assets.

Probability of bankruptcy can be divided into three degrees (levels)/
So Probability of bankruptcy can has three levels:

1) Low probability of bankruptcy:

$MCA \geq CL$,

where: MCA - material current assets (cash and inventory)

CL - current liabilities

2) Middle probability of bankruptcy:

$MCA \geq 0,75 * CL$

3) High probability of bankruptcy:

$MCA < 0,75 * CL$

How can they be assessed as having complete and accurate information about the probability of bankruptcy of a company?

GRAPHICAL METHOD PROBABILITY OF BANKRUPTCY ANALYSIS

Graphical method visualized presentation the actual financial condition, and also identifies areas for improvement. Consider the possible combination of assets and obligations of the company (pic. 1-3).

	MCA		CL	
	inventory			
			75-100%	
	cash			

Pic. 1. Low probability of bankruptcy

	MCA		CL	
			75-100%	
	Inventory			
	Cash			

Pic. 2. Middle probability of bankruptcy

	MCA		CL	
			75-100%	
	Inventory			

	cash			

Pic. 3. High probability of
bankruptcy

FINANCIAL MANAGEMENT USE

Comparison of graphics at the beginning and end of the analyzed period can not only assess the actual condition, but allow for a factor analysis. For this analysis is sufficient to compare the values of indicators factors. With the growth of asset situation is improving, with the growth of liabilities - is worsening. So, if we want to lowering of probability of bankruptcy we must growth assets - Cash and Inventory and reduce the current liabilities.

CONCLUSION

Summarize the listed models it is possible to say that the financial analysis system, undoubtedly, is an important element of a control system at the enterprise and corporate financial management. Integration of data of the financial analysis into the general management system at the enterprise will allow to raise quality of a control system of the enterprise, and to create enterprise competitive advantages. Proper management of the company allows us to learn how to properly manage and. Estimating the probability of bankruptcy and the factors that lowering and raising of the bankruptcy allows for the possibilities for sustainable future growth of an enterprise and economy in hole.

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THE STRUCTURE OF R&D EXPENDITURE: A CASE STUDY FROM CZECH MANUFACTURING INDUSTRY

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ABSTRACT

This paper investigates and explores the role of company ownership in relation to R&D expenditure. For this purpose we have studied data from a survey conducted annually by the Czech Statistical Office. The period from 2007 till 2013 was examined. An initial analysis of R&D expenditures was performed based on two sample t-test and segmentation techniques. We tested casual relationships between total R&D expenditure and company ownership. In order to provide some degree of control over the size of the organizations and the type of industry, only manufacturing companies with more than 50 employees were considered. A total of 882 manufacturing companies were found to satisfy this criterion. We found that during this period there was a significant change in expenditure structure. Before 2009 the share of investment expenditure dominated, while after 2010 the situation changed and so did the share of current expenditure, especially due to the proportion of labor costs.

Keywords: Innovation; R&D expenditures; Czech manufacturing industry

INTRODUCTION

There are several reasons for measuring innovation. Innovation is a very modern trend because innovation is the foundation for sustainable growth of a business corporation. On the other hand, no matter how high the investment in innovation, there is no guarantee that it is being spent efficiently. Therefore, it is necessary to innovate wisely and with focus. Such activity requires that the company is capable of continuous evaluation of ongoing innovation projects and using this data to make decisions on whether or not to continue.

Therefore, measuring the performance and contribution to value of innovation has become a fundamental concern for managers and executives in recent decades (Kerssen-van Drongelen and Bilderbeek, 1999). According to many books and publications written over the past few years on the topic of measuring enterprise performance (see Neely, 2005 for an overview of the state of the art of performance measurement and further research perspectives), it might seem that we know everything we need. In the last few years, many studies have been written discussing the issue and suggesting possible approaches to performance measurement, innovation and R&D management (e.g. Bassani et al., 2010; Chiessa and Frattini, 2009; Merschmann and Thonemann, 2011).

How is innovation measured in empirical studies? One approach is to use the **number of implemented innovations**. This is the essential and most simple metric. However, there is a distinct difference in the significance of individual innovations. The ability to bring incremental innovations to the market can produce greater benefits for the competitive ability of enterprises than the ability to be first on the market with radically new technologies. Both radical and incremental innovation deserve appropriate attention within innovation management.

A second approach is to use **patent data** to measure “inventive output” indirectly. This involves patents a company has registered itself, not patents (generally license) acquired or purchased from another subject for commercial purposes – such an approach represents input metrics. However, not all innovations are protected by patents and many patents are never translated into commercially viable products. There also is great heterogeneity in companies’ propensity to patent. Furthermore, the propensity to patent may vary across sectors or company size classes. The relative importance of patenting as a barrier to imitation differs both among sectors and among types of innovation. From this point of view, patent data is an inadequate indicator of innovation output, especially if not all of innovations are patented and patents may have very different economic impacts.

A third approach is to use **R&D expenditure**. R&D, while it is typically well codified, is a measure of input to the innovation process rather than output. Moreover, companies, and in particular small firms, may generate technological advances outside formal R&D laboratories which R&D expenditure may not capture (OECD, 2009)

A final, but not worse, approach is to follow **economic metrics**. All kinds of innovations are implemented on the basis of projects where the expected effectiveness is evaluated based on forecasts of the volume of sales and profits at an assumed price and cost. With these data available, which are however very difficult to determine, the firm can carry out an evaluation using any proven method. The evaluation of innovation performance must be based on reality where sales generated from products subject to innovation are separated from overall sales. This makes it possible to determine the proportion of innovated products in sales, the amount of operating profit and to look at trends. Such simply and demonstrably obtained facts are difficult to question and can be used to counter any irrational demands of innovators.

METHODOLOGY

Research design

This paper builds on a third approach which uses direct information from innovation surveys about company’s innovation, R&D expenditure, number of R&D employees, financial resources, etc. conducted annually by the Czech Statistical Office (CZSO). CZSO monitors the characteristics of research and development (R&D) using a direct statistical survey (VTR 5-01). This survey has been carried out in the Czech Republic since 1995 and is a part of the Program of Statistical Surveys. The program is made public by the CZSO Decree Law No. 89/1995 Coll., On the State Statistical Service, as amended.

The first step was to define the research sample. CZSO provides data with the following structure:

- Basic research/applied research/experimental development
- For-profit sector/non-profit sector/governmental sector/universities
- Size of organization according to the Recommendation of the European Commission 2003/361/EC of 6 May 2003 (EC, 2003, p.36). This standard established four groups: micro, small, medium and large company.

We look at applied research in the for-profit sector since this approach is close to the innovation definition according the Oslo Manual (OECD, 2005) – innovation has been implemented if it has been introduced on the market (product innovation) or used within a production process (process innovation). Moreover, it is companies that innovate, not countries and their governments.

As far as the first feature is concerned, this choice is related to the fact that manufacturing industry (according to CZ-NACE rev. 2, division C, sections 10-33) is considered to be the most for the development of the Czech economy since it is the largest sector. This allowed a sufficient number of companies to be contacted to participate in the study. We estimate that the target population consists of over 11,000 manufacturing companies.

Out of this target population we focus on medium and large companies (>50 employees) because they are considered innovation leaders, both in Czech Republic (CZSO, 20014) and globally (OECD, 2009). This

presumption is based on the Schumpeterian hypothesis, which generally asserts a positive link between company size and R&D activity. Large companies, it is argued, are in a better position to carry out the R&D necessary for innovation and may also be better placed to exploit the market potential of each innovation (Love and Roper, 1999) as well as the possibility of employing professional managers and technical experts, better protection of innovation against competition, strong marketing, etc. Large companies have stronger cash flows to fund R&D activity and their large sales volumes imply that the fixed costs of R&D activity can be spread over a large sales base. Large firms have access to a wider range of knowledge and human capital skills than small ones, allowing higher rates of R&D activity (Rogers, 2003).

The period taken into consideration was from 2007 to 2013 so as to examine the effect of the economic crisis on R&D expenditure in Czech manufacturing industry. Our selective sample consists of manufacturing companies with domestic Czech owners (550 subjects) as well as with foreign owners (332 subjects). R&D expenditure is examined in following structure.

Table 1: R&D expenditure structure

R&D expenditures in total		Shortcut
Current expenditure (non-investment expenditure)		CE
Thr.	Labor expenses including social and health insurance	LE
	Contracts of services	CS
	Sundry non-investment expenses spent on R&D support (material, energy, equipment etc.)	SNE
Investment expenditures		
Thr.	Long-standing intangible assets	LIA
	Thr.	Activation of own R&D outcomes
		Software
		Other Long-standing intangible assets
	L&B (land and buildings)	LB
	Other long-standing tangible assets (machines, equipment, facilities etc.)	OLSTA

Research aims and hypotheses development

How much money should companies invest in R&D? The answer is crucial for owners of an R&D organization interested in productivity and effectiveness. The total of such investments varies between companies, industries and owners and their attitude to innovation. Therefore, this paper utilizes company-specific time-series data to study differences in R&D expenditure structure depending on company ownership.

Considering Czech manufacturing industry and the micro level of measurement, the following research hypotheses were defined:

H₀: The share of non-investment expenditure is higher in companies controlled by a domestic owner than in those controlled by a foreign owner.

H₁: The share of non-investment expenditure is same or even lower in companies controlled by a domestic owner than in companies controlled by a foreign one.

Techniques for data analysis

To evaluate our defined hypothesis we used a two sample t-test with equal or rather unequal variances. The test procedure can be described as follows. Let there be two independent random samples (X_1, \dots, X_n) from distribution $N(\mu_1, \sigma^2)$ or respectively (Y_1, \dots, Y_m) from distribution $N(\mu_2, \sigma^2)$. We assume that

$n \geq 2; m \geq 2; \sigma^2 > 0$. The t-test tests a null hypothesis, that the difference between the mean of both groups (μ_1, μ_2) is equal to some constant (Δ), in most cases zero ($\Delta=0$), i.e:

$$H_0 : \mu_1 - \mu_2 = \Delta \quad (1)$$

Against the alternative hypothesis

$$H_1 : \mu_1 - \mu_2 \neq \Delta \quad (2)$$

The test criterion, under the assumption of **equal** variances can be written in the following form:

$$|T| = \left| \frac{\bar{X} - \bar{Y} - \Delta}{\sqrt{(n-1) \cdot S_x^2 + (m-1) \cdot S_y^2}} \cdot \sqrt{\frac{nm \cdot (n+m-2)}{n+m}} \right| \geq t_{n+m-2}(\alpha) \quad (3)$$

where $\bar{X}, \bar{Y}, S_x^2, S_y^2$ are characteristics of the two random samples.

The test criterion, under the assumption of **unequal** variances can be written as follows:

$$\frac{|\bar{X} - \bar{Y}|}{S} \geq \frac{v_x t_{n-1}(\alpha) + v_y t_{m-1}(\alpha)}{v_x + v_y} \quad (4)$$

where

$$S_x = \frac{1}{n-1} \left(\sum_{i=1}^n X_i^2 - n \bar{X}^2 \right), S_y = \frac{1}{m-1} \left(\sum_{i=1}^m Y_i^2 - m \bar{Y}^2 \right), S = \sqrt{\frac{S_x^2}{n} + \frac{S_y^2}{m}}, v_x = \frac{S_x^2}{n}, v_y = \frac{S_y^2}{m} \quad (5), (6), (7), (8), (9)$$

RESEARCH RESULTS

The following tables show the basic descriptive statistics of the research sample. The tables show only the shares of **non-investment expenditure**. For the purposes of differentiation between types of owner of the companies we use the following abbreviations: F denotes companies controlled by foreign owner, D denotes companies controlled by domestic owner.

Table 2: Descriptive statistics of the sample – non-investment R&D expenditure

	n (D)	n (F)	Mean (D)	Mean (F)	Std. Dev. (D)	Std. Dev. (F)		n (D)	n (F)	Mean (D)	Mean (F)	Std. Dev. (D)	Std. Dev. (F)
CE 13	550	332	0.9438	0.9119	0.1514	0.1920	CS 13	550	332	0.0110	0.0049	0.0628	0.0280
CE 12	519	320	0.9269	0.9109	0.1909	0.1882	CS 12	519	320	0.0083	0.0042	0.0432	0.0358
CE 11	513	314	0.9270	0.9273	0.1901	0.1711	CS 11	513	314	0.0102	0.0063	0.0593	0.0380
CE 10	495	302	0.9389	0.9349	0.1629	0.1563	CS 10	495	302	0.0124	0.0037	0.0740	0.0168
CE 09	424	323	0.0994	0.0932	0.2887	0.2752	CS 09	424	323	0.1545	0.1963	0.3241	0.3637
CE 08	441	293	0.0951	0.1079	0.2817	0.2962	CS 08	441	293	0.2239	0.2669	0.3847	0.4093
CE 07	490	223	0.0915	0.0626	0.2781	0.2269	CS 07	490	223	0.1928	0.2433	0.3657	0.3906
LE 13	550	332	0.5983	0.5845	0.2565	0.2405	SNE 13	550	332	0.3345	0.3225	0.2458	0.2180
LE 12	519	320	0.5658	0.5823	0.2699	0.2415	SNE 12	519	320	0.3528	0.3243	0.2602	0.2227
LE 11	513	314	0.5782	0.5765	0.2694	0.2487	SNE 11	513	314	0.3386	0.3446	0.2567	0.2349
LE 10	495	302	0.5783	0.5754	0.2609	0.2490	SNE 10	495	302	0.3482	0.3558	0.2520	0.2413
LE 09	424	323	0.1657	0.2064	0.3395	0.3759	SNE 09	424	323	0.7349	0.7004	0.4135	0.4326
LE 08	441	293	0.2344	0.2796	0.3972	0.4233	SNE 08	441	293	0.6705	0.6125	0.4469	0.4625
LE 07	490	223	0.2002	0.2655	0.3770	0.4148	SNE 07	490	223	0.7083	0.6719	0.4360	0.4405

We can see that the share of current expenditures (CE) ranges from 9.15% (in 2007) to 94.38% (in 2013) of all R&D expenditure in companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner, ranges from 6.26% (in 2007) to 93.49% (in 2013). Moreover, the mean share of

current expenditure realized by companies controlled by a domestic owner is higher during the analyzed period, with the exception of the years 2007 and 2011, than the mentioned share of current expenditures realized by companies controlled by a foreign owner. The difference between the mean values ranges from 2.89pp (in 2007) to 3.18pp (in 2013).

We will analyze the components of current expenditure. First, the share of labor expenses. We can see that the share of labor expenses (LE) ranges from 16.57% (in 2009) to 59.83% (in 2013) of all R&D expenditure in companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner ranges from 20.64% (in 2009) till 58.45% (in 2013). When speaking of differences in mean values of these shares, we can see that the mean share of labor expenses realized by companies controlled by a domestic owner is higher than in companies controlled by a foreign owner in the years 2013, 2011 and 2010. In the years 2007, 2008, 2009 and 2012 is the situation is the opposite. The difference between the mean values ranges from -6.53pp (in 2007) to 1.38pp (in 2013).

The mean values of shares of expenditures spent on Contracts of Services (CS) ranges in the examined period from 0.83% (in 2012) to 22.39% (in 2008) of all R&D expenditures in companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner ranges from 0.37% (in 2010) to 26.69% (in 2008). The mean share of expenditures spent on Contracts of Services by companies controlled by a domestic owner is higher than in companies controlled by a foreign owner in the period from 2010 to 2013. In the period from 2007 to 2009 the situation is the opposite. The difference between the mean values ranges from -5.05pp (in 2007) to 0.87pp (in 2010). The mean values of shares of expenditures spent on Sundry Non-investment Expenses spent on R&D support (material, energy, equipment, etc.), i.e. SNE ranges in the examined period from 33.45% (in 2013) to 73.49% (in 2009) of all R&D expenditure in companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner ranges from 32.25% (in 2013) to 70.04% (in 2009). The mean shares of expenditures spent on Sundry Non-investment Expenses spent on R&D support (material, energy, equipment, etc.) realized by companies controlled by a domestic owner is higher during the analyzed period, with the exception of the years 2010 and 2011, than the mentioned share of SNE realized by companies controlled by a foreign owner. The difference between the mean values ranges from -0.75pp (in 2010) to 5.8pp (in 2008).

The following tables show the basic descriptive statistics of the research sample. The tables show only shares of **investment expenditure**. For the purpose of differentiation between the types of owner of the companies we use the following abbreviations: F denotes companies controlled by a foreign owner, D denotes companies controlled by a domestic owner.

Table 3: Descriptive statistics of the sample – investment R&D expenditure

	n (D)	n (F)	Mean (D)	Mean (F)	Std. Dev. (D)	Std. Dev. (F)		n (D)	n (F)	Mean (D)	Mean (F)	Std. Dev. (D)	Std. Dev. (F)
IE 13	550	332	0.0562	0.0881	0.1514	0.1920	OL 13	550	332	0.0044	0.0083	0.0373	0.0665
IE 12	519	320	0.0731	0.0891	0.1909	0.1882	OL 12	519	320	0.0043	0.0108	0.0356	0.0803
IE 11	513	314	0.0730	0.0727	0.1901	0.1711	OL 11	513	314	0.0033	0.0063	0.0259	0.0658
IE 10	495	302	0.0611	0.0651	0.1629	0.1563	OL 10	495	302	0.0068	0.0066	0.0407	0.0627
IE 09	424	323	0.6984	0.6680	0.4115	0.4264	OL 09	424	323	0.0140	0.0219	0.1033	0.1241
IE 08	441	293	0.6291	0.5727	0.4392	0.4506	OL 08	441	293	0.0165	0.0137	0.1113	0.1009
IE 07	490	223	0.6691	0.6096	0.4284	0.4206	OL 07	490	223	0.0105	0.0164	0.0858	0.1157
AC13	550	332	0.0067	0.0049	0.0469	0.0454	LB 13	550	332	0.0096	0.0063	0.0640	0.0495
AC12	519	320	0.0067	0.0083	0.0453	0.0724	LB 12	519	320	0.0116	0.0093	0.0844	0.0590
AC11	513	314	0.0050	0.0058	0.0364	0.0557	LB 11	513	314	0.0059	0.0022	0.0526	0.0133
AC10	495	302	0.0078	0.0060	0.0595	0.0555	LB 10	495	302	0.0057	0.0049	0.0477	0.0374
AC09	424	323	0.0150	0.0145	0.1176	0.1147	LB 09	424	323	0.0103	0.0044	0.0630	0.0422
AC08	441	293	0.0132	0.0186	0.1106	0.1276	LB 08	441	293	0.0083	0.0040	0.0582	0.0432
AC07	490	223	0.0156	0.0105	0.1157	0.0897	LB 07	490	223	0.0067	0.0024	0.0520	0.0346
SW 13	550	332	0.0078	0.0066	0.0408	0.0326	OLSTA 13	550	332	0.0278	0.0620	0.1009	0.1568
SW 12	519	320	0.0082	0.0058	0.0514	0.0239	OLSTA 12	519	320	0.0423	0.0549	0.1418	0.1341
SW 11	513	314	0.0073	0.0071	0.0322	0.0363	OLSTA 11	513	314	0.0515	0.0513	0.1628	0.1406

SW 10	495	302	0.0072	0.0056	0.0341	0.0236	OLSTA 10	495	302	0.0336	0.0421	0.1207	0.1199
SW 09	424	323	0.0051	0.0065	0.0496	0.0729	OLSTA 09	424	323	0.0064	0.0078	0.0516	0.0490
SW 08	441	293	0.0069	0.0024	0.0674	0.0224	OLSTA 08	441	293	0.0039	0.0041	0.0389	0.0383
SW 07	490	223	0.0022	0.0012	0.0229	0.0123	OLSTA 07	490	223	0.0031	0.0061	0.0290	0.0470

We can see that the share of investment expenditures (IE) ranges from 0.5% (in 2011) to 1.49% (in 2007) of all R&D expenditure in companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner, ranges from 0.49% (in 2013) to 1.86% (in 2008). Moreover, the mean share of R&D outcomes activation realized by companies controlled by a domestic owner is higher in the years 2008, 2011 and 2012 than the mentioned share of current expenditure realized by companies controlled by a foreign owner. The difference between the mean values ranges from -0.54pp (in 2008) to 0.50pp (in 2007). Now we will analyze the components of investment expenditure. First, the share R&D outcomes activation. We can see that the mean share of R&D outcomes activation (AC) ranges from 0.5% (in 2011) to 1.49% (in 2007) of all R&D expenditure in companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner ranges from 0.49% (in 2013) to 1.86% (in 2008). Moreover, the mean share of R&D outcome activation realized by companies controlled by a domestic owner is higher in the years 2008, 2011 and 2012 than the mentioned share of current expenditure realized by companies controlled by a foreign owner. The difference between the mean values ranges from -0.54pp (in 2008) to 0.50pp (in 2007).

The mean values of shares of expenditure spent on software (SW) ranges in the examined period from 0.22% (in 2007) to 0.82% (in 2012) of all R&D expenditure in the companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner ranges from 0.12% (in 2007) to 0.71% (in 2011). The mean share of expenditure on software by companies controlled by a domestic owner is higher than in companies controlled by a foreign owner in the analyzed period with the exception of 2009. The difference between the mean values ranges from -0.14pp (in 2009) to 0.45pp (in 2008).

The mean values of shares of expenditure spent on Other Long-standing intangible assets (OL) spent on R&D ranges in the examined period from 0.33% (in 2011) to 1.65% (in 2008) of all R&D expenditure in companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner, ranges from 0.63% (in 2011) to 2.19% (in 2009). The mean shares of Other Long-standing intangible assets expenses spent on R&D realized by companies controlled by a domestic owner is higher only in the years 2008 and 2010 than the mentioned share of OL realized by companies controlled by a foreign owner. The difference between the mean values ranges from -0.79pp (in 2009) to 0.29pp (in 2009).

The mean values of shares of expenditure on L&B (land and buildings) spent on R&D ranges in the examined period from 0.57% (in 2010) to 1.16% (in 2012) of all R&D expenditure in the companies controlled by domestic owner. The same share, but in companies controlled by a foreign owner ranges from 0.22% (in 2011) 0.93% (in 2012). The mean shares of L&B (land and buildings) expenses spent on R&D realized by companies controlled by a domestic owner is higher in all of the analyzed years than the mentioned share of LB realized by companies controlled by a foreign owner. The difference between the mean values ranges from 0.07pp (in 2010) to 0.59pp (in 2009).

The mean values of shares of expenditure on Other Long-Standing Tangible Assets (machines, equipment, facilities, etc.) (OLSTA) spent on total R&D expenses ranges in the examined period from 0.31% (in 2007) to 5.15% (in 2011) of all R&D expenditure in the companies controlled by a domestic owner. The same share, but in companies controlled by a foreign owner, ranges from 0.41% (in 2008) to 6.2% (in 2013). The mean shares of Other Long-Standing Tangible Assets expenses spent on R&D realized by companies controlled by a domestic owner is higher only in 2011 than the mentioned share of OLSTA realized by companies controlled by a foreign owner. The difference between the mean values ranges from -3.42pp (in 2013) to 0.02pp (in 2011).

In further analysis we focus only on non-investment R&D expenditure because of the limit of the paper. For evaluation of our research hypothesis, it is necessary to conduct statistical testing. The result of the performed tests are listed in the following table.

Table 4: The results of t-test application

	t-stat. ¹	df ¹	p-val. ¹	t-stat. ²	df ²	p-val. ²	F-stat.	p-val.
CE 13**	2.7285	880	0.006488	2.5753	577.0632	0.010262	1.6084	0.00000092
CE 12	1.1886	837	0.23493	1.1926	682.8951	0.233422	1.0290	0.78310694
CE 11	-0.0245	825	0.980441	-0.0252	715.3092	0.979939	1.2355	0.03988108
CE 10	0.3459	795	0.72948	0.3494	656.3815	0.726895	1.0858	0.43267075
CE 09	0.2976	745	0.766098	0.2995	708.8546	0.764634	1.1000	0.36611757
CE 08	-0.5913	732	0.554525	-0.5853	603.7968	0.558544	1.1052	0.34393804
CE 07	1.3599	711	0.174283	1.4663	519.0540	0.143164	1.5016	0.00058679
LE 13*	0.7908	880	0.429262	0.8035	733.2363	0.421932	1.1377	0.19553118
LE 12	-0.8948	837	0.371142	-0.9187	732.2066	0.358556	1.2494	0.02912592
LE 11	0.0949	825	0.924386	0.0968	702.6585	0.922922	1.1740	0.11849689
LE 10	0.1548	795	0.877041	0.1565	659.1454	0.875658	1.0981	0.37217280
LE 09	-1.5499	745	0.121596	-1.5288	654.2851	0.126808	1.2255	0.05056812
LE 08	-1.4698	732	0.142058	-1.4510	597.7353	0.147313	1.1361	0.22773548
LE 07**	-2.0774	711	0.038126	-2.0045	394.9685	0.045701	1.2105	0.08896587
CS 13**	1.6717	880	0.094938	1.9754	822.1834	0.048562	5.0320	0.00000000
CS 12	1.3984	837	0.162375	1.4615	767.8905	0.144283	1.4567	0.00024951
CS 11	1.0427	825	0.297392	1.1534	823.2416	0.2491	2.4321	0.00000000
CS 10**	2.0054	795	0.045261	2.5046	574.0591	0.012536	19.4546	0.00000000
CS 09	-1.6528	745	0.098791	-1.6273	648.7453	0.10415	1.2590	0.02677822
CS 08	-1.4446	732	0.148988	-1.4267	598.4864	0.154198	1.1322	0.24039089
CS 07*	-1.6722	711	0.09492	-1.6313	405.0973	0.103598	1.1413	0.23884520
SNE 13	0.7299	880	0.465669	0.7518	763.0531	0.452421	1.2714	0.01621967
SNE 12*	1.6271	837	0.104098	1.6878	753.2874	0.09186	1.3649	0.00238599
SNE 11	-0.3371	825	0.736109	-0.3444	706.8674	0.730661	1.1940	0.08459501
SNE 10	-0.4153	795	0.678019	-0.4197	657.4013	0.674845	1.0903	0.40971739
SNE 09	1.1072	745	0.26858	1.1004	676.7385	0.27153	1.0942	0.38627901
SNE 08*	1.6978	732	0.089973	1.6861	610.7081	0.09229	1.0709	0.51562666
SNE 07	1.0302	711	0.303278	1.0262	425.6808	0.305369	1.0207	0.84656687

Note: *** statistically significant at 1% level, ** statistically significant at 5% level, * statistically significant at 10% level,

The results of the test show that only a few differences are statistically significant. The difference between the mean values of current expenditure (CE) in companies controlled by a domestic owner or foreign owner is statistically significant at the 5% level of the t-test only in 2013. Moreover, the mentioned share is higher in the companies controlled by a domestic owner. This confirms our hypothesis, but only in 2013, as the differences that occur in other years in the period examined were not statistically significant at any standard level of t-test.

The difference between the mean values of labor expenses (LE) in companies controlled by a domestic owner or foreign owner is statistically significant at the 5% level of the t-test only in 2007 and at the 10% level in 2013. In 2013 the mentioned shares are higher in the case of companies controlled by a domestic owner, but in 2007 the situation was the opposite, i.e. the mentioned share was higher in companies controlled by a foreign owner. The differences that occur in other years in the period examined were not statistically significant at any standard level of t-test.

The difference between the mean values of Contracts of Services (CS) in companies controlled by a domestic owner or a foreign owner is statistically significant at the 5% level of t-test in 2013, 2007 and at the 10% level in 2007. In 2013 and 2010 the mentioned shares are higher in the case of companies controlled by a domestic owner, but in 2007 the situation was the opposite, i.e. the mentioned share was higher in companies controlled by a foreign owner. The differences that occur in other years from the examined period were not statistically significant at any standard level of t-test.

The difference between the mean shares of expenditures spent on Sundry Non-investment Expenses (SNE) in 2012 and 2008 in companies controlled by a domestic owner or a foreign owner is statistically

significant only at the 10% level of t-test. In 2012 and 2008 the mentioned shares are higher in the case of companies controlled by a domestic owner. The differences that occur in other years in the examined period were not statistically significant at any standard level of t-test.

CONCLUSION

The aim of this paper was to investigate and explore the role of company ownership and its relation to R&D expenditure. We focus on the share of current expenditures in total expenditure and its structure in the period from 2007 to 2013. We found that during this period there was a significant change in expenditure structure. Before 2009 the share of investment expenditure dominated, while after 2010 the situation changes and the share of current expenditure, especially due to the share of the labor expenses.

Speaking about the difference between the companies controlled by a domestic or a foreign owner, the share of current expenditure is higher in the case of domestic owners than in that of foreign owners (with the exception of 2007 and 2011).

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THE PROVISION OF LOW-COST HOUSES IN SOUTH AFRICA: THE CASE OF KHAYELITSHA TOWNSHIP IN CAPE TOWN

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ABSTRACT

The aim of this article is to assess challenges experienced by the beneficiaries of low-cost houses in the housing provision in Khayelitsha Township in Cape Town. Democracy that was conceived in 1994 in South Africa brought about changes in all the spheres of government regarding the provision of affordable basic services. A mixed method approach was employed in order to collect data using both qualitative and quantitative instruments. A sample of 30 participants was interviewed and 125 questionnaires were distributed with 85 returned back from the residents of Khayelitsha in Site C, Cape Town. This study revealed that there was limited community involvement in the housing trends in Khayelitsha settlements. Also, the housing back-log with steady progress, lack of knowledge and understanding of housing policies and projects, poor infrastructure and land provided for these houses and poor quality of houses built and exposure to risks. The study argues that participatory development can be an ideal approach to drive housing projects, especially when communities are involved in all stages of housing development. The study recommends that the national and provincial government must adopt a participatory development approach towards the implementation of housing developments in order to accommodate the community's views and make them to benefit in the process when they raise their voices.

Keywords: Community, participatory democracy, housing, inclusion

INTRODUCTION AND BACKGROUND

The problem of providing low-cost houses is accepted as a critical problem that should be addressed in various government levels. Even though there are various strategies that have been applied by government in addressing the issue of housing, the inclusion of communities and affected groups in planning and implementation of housing projects is still at an incipient stage. In the post-apartheid South Africa, democratic participation is the fundamental right in the provision of basic needs like housing and shelter. Public participation is concerned about creating democratic spaces where stakeholders and communities are involved in the planning and implementation of housing policies and in decision-making (Van Dong, et.al., 2008). Even though there are development efforts in Khayelitsha, this township is still faced with a serious problem of living in poorly designed and unhealthy housing conditions that exacerbate poor conditions that make people to be most vulnerable. The main purpose of this study is to assess the challenges of providing low-cost houses in Khayelitsha.

The 1994 new democracy and 1995/6 local government elections and Act 108 of 1996 promoted democratic system of governance that required elected representatives to act in an answerable and transparent manner. While the involvement of the communities is encouraged in the prioritising of resource planning through IDP, there is less community involvement in the implementation of housing projects and programmes. Up to date, the national and provincial governments are faced with a backlog on housing provision. This study notes the limited participation of the ordinary people in the Khayelitsha Township. To this end, local government

and the Western Cape Housing Department need to encourage consultation, public report back, transparency, accessibility and accountability as well as inclusiveness with less implementation on from the community. The legacy of the apartheid urban policies left a highly unequal distributed of housing infrastructure within municipalities infrastructure in black townships characterised by inadequate and poorly maintained services (Burgoyne, 2008). Posing the greatest challenge are the informal settlements growing daily in and around South African cities, where the most basic water and sanitation services are absent. The government approach on the housing issues was to form partnership with service providers from the private sector and secured housing subsidies for the low-income people and the poor (Burgoyne, 2008). It is projected that about 164 000 new households per annum are established in urban areas each requiring access to water supply (Goldblatt, 2006). In order to achieve the purpose of the study, in which this article is based on, the researchers provided an analysis of; the housing development trends; theories informing the study, interpretation of findings and conclusions and recommendations.

PROBLEM STATEMENT

The primary objective of this study was to analyse how the challenges of providing low-cost houses in the Western Cape in South Africa. In keeping with the hypothesis of this study – that the provision of low-cost houses in South Africa is at the incipient stage, the study argues that various strategies have been applied to alleviate the housing backlog but up to now there is less success in including the affected groups in planning and implementation of those strategies. The South African government is faced with a continuous problem of addressing the housing backlog, and provide affordable houses to the poor. However, this major responsibility cannot be achieved alone by government but by private sector, non-governmental organisation and the communities through collaborated efforts. The study employed a mixed method for data collection using both qualitative and quantitative methods for collecting data. The primary objective of this study was to assess the challenges experienced by the beneficiaries of low cost houses in Khayelitsha during the housing development. The intention of the study is to recommending a workable approach for implementing housing development initiatives in South Africa.

THEORETICAL FRAMEWORK

This study is informed by participatory democracy. Frank (1966) asserts that the departure to develop societies is by understanding how the past economic and social history gave rise to the existence of their problem. Diverse nations are clamoring for an inclusive approach in development and social transformation (Burkey, 1994). Davids, Theron and Maphunye (2006) assert that proponents of dependency theory see societal ills emanating from the international exploitation, as explained by the dependency theory of Gunder Frank (1996). However, the failure of the developed theories to address the problems of under-development has resulted to a new focus of human-centred development. Similarly, people-centred development incorporates some aspects of modern development with dependency theory (Davids et.al. 2006) nations to development efforts that are aiming at addressing the needs of the people must be people centred. South Africa's colonial and apartheid legacy dis-empowered local communities and endorsed a top-down approach in decision-making.

The democratic government in the post-apartheid era provided the Bill of Rights to recognise human rights by entrenching it and participatory democracy within the South African Constitution (1996). During the early stages of post-apartheid South Africa, two important components for successful community participation in housing development processes were in place: a democratic government that recognised the significance of communities' contributions to housing development processes and a strong grassroots movement motivated to take part in development processes. In 1994, when the democratic government of National Unity led by the African National Congress (ANC) came to power, its new constitution recognised housing as a priority and a human right for all (ANC, 1994).

Juta and Matsiliza (2014) assert that the South African government's commitment is to correct the injustices of the past and provided its housing policy with a mandate to provision affordable human settlement for the poor and historically oppressed majority in South Africa. The government's policy documents stressed a people-cantered approach: significant community participation in housing processes and an active role for low-income groups as partners with government and the private sector in developing housing (Department of

Housing 1994a). According to Kotze and Kellerman (1997) participation has become part of the development lexicon. Similarly, Davids.et.al. (2006) affirm that participation should be understood in the sense of decision-making, implementation of development projects and programmes and in sharing the fruits or efforts of development process. However, participatory democracy relates to the purpose of inclusion of ordinary people in housing development in South Africa. Therefore, this study addresses the issues on housing provision using the lenses of participatory democracy.

Self-reliance is considered as a principle of survival in community development where that promotes independence on communities in development efforts by gaining full potential of their skills and local resources (Theron, 2009). Not surprisingly, up to date, there are still challenges when communities participate with the intention of realising their needs for affordable houses (Juta and Matsiliza, 2014). In the study conducted by Kang'ethe (2014), it was realised that the houses for the poor are located in areas that exposes them to health risks. Similarly, Khaki (2009) assert that considerations for promoting sustainable development can also be another choice in providing affordable houses that are ecologically sound. Khaki (2009) argues government has compromised human settlements in as far as risks and exposure to diseases and the natural deprivation of the ecology.

Notable, participatory democracy is observed in South Africa with minimal progress on development efforts. According to Theron (2008), community participation should be a permanent fixture of participatory development, and it needs to be located in the broader sustainable human development, democratisation, good governance and co-operative governance debates. In the context of this study, participatory development is suitable for the long-lasting positive change as a result of housing development. If government can properly apply participatory democracy in housing provision, there would be improvement in the social status and economic status of ordinary people, with shared governance that yield better management of resources.

PHASES IN COMMUNITY PARTICIPATION

Identification of Appropriate Stakeholders

The public involvement of stakeholders in development projects is widely recognized as a fundamental element of the process (Davids.et.al, 2006). Timely, well-planned and well-implemented public involvement programs have contributed to the successful design, implementation, operation and management of proposals (United Nations Environmental Programme, (UNEP, 2013). For instance, the range of stakeholders involved in the housing provision typically includes:

- ✓ The people, individuals, or groups in the local community
- ✓ The proponent and other project beneficiaries
- ✓ Government agencies
- ✓ Non-governmental Organizations (NGOs)
- ✓ Others, such as donors, the private sector, academics, service providers and so forth.

In participatory development, it is significant to consult stakeholders during the planning, implementation and evaluation of the housing projects. The successful and lasting relationship among these stakeholders influences the achievements of objectives in housing development projects.

Needs Identification and Goal Determination

Participation of the masses in development activities implies enhanced capacity to perceive their own needs. Through participation, local people identify their needs as well as the relevant goals of a program. Burkey (1994) assert that people should be included in the identification of their basic needs and goal determination. By participating in decision-making and implementation activities, local people help project officials identify (1) needs, (2) strategies to meet those needs, and (3) the necessary resources required to implement the various strategies (UNEP, 2013). For example, community participation will be discouraged if environmental issues are given priority in agendas without addressing issues such as poverty, homelessness, health and other basic necessities perceived to be more important by the coastal communities.

Information Dissemination

Sharing information is an important aspect of stake-holders preparedness and empowerment during the planning phase of community development. Project managers and the ward councillors should disseminate information in all the project phases in order to provide sufficient and relevant information about the project scope, project beneficiaries, the costs of implementation, the potential for financing and implementation and any feasibility study that was conducted and possible risk factors. Stakeholders should be given enough time to read and consult other stakeholders if it's necessary to do so. Lack of transparency and consultation can result to a project being rejected by the community members and can result to misunderstanding between project authorities and local communities (UNEP, 2013).

Consultation

Consultation involves inviting people's views on the proposed actions and engaging them in a dialogue. It is a two-way flow of information between the proponent and the public. Consultation provides opportunities for the public to express their views on the project proposal initiated by the project proponent. Rigorous planning and implementation of projects should be undertaken only after considerable discussion and consultation. Consultation includes education, information-sharing, and negotiation, with the goal being a better decision-making process through organizations consulting the general public (Hesse-Biber and Leavy, 2011). This process allows neglected people to hear and have a voice in future undertakings. Depending on the project, various methods are used during consultation such as public hearings, public meetings, general public information meetings, informal small group meetings, public displays, field trips, site visits, letter requests for comments, material for mass media and response to public inquiries. Participants should be encouraged to articulate their ideas and the design of the project should be based on such ideas.

Project implementation

Therefore, participation needs to be considered as an active process, meaning that the person or group in question takes initiatives and asserts an independent role (Hesse-Biber and Leavy, 2011). The project should encourage a maximum number of people in the participation of development projects and create job opportunities for them. Such involvement should give participants full inclusion in designing, organizing, and implementing activities and workshops in order to create consensus, ownership and action in support of environmental change in specific areas. It should include people and groups by hiring them and by transferring skills to those who are learning to work rather than exclude any individuals. Public involvement is a process for involving the public in the decision-making of an organization (Hesse-Biber and Leavy, 2011).

According to Okolie (2011) public involvement can take place at several stages in the establishment and management of marine protected areas. These stages are: (1) the recognition of a need; (2) discussions with interested parties and integration with the community; (3) baseline studies and monitoring; (4) education; (5) core group building and formalization of reserves; and (6) enforcement. In the event where the community share the ownership, self-reliance and accountability can be meaningfully achieved.

Accountability

The requirement of accountability applies to all parties involved in the project such as project management, external organizers, and traditional leaders, as well as any emergent leadership from the ranks of the poor and the disadvantaged (Hesse-Biber and Leavy, 2011). The authors note that the agencies involved in project management and implementation are procedurally and periodically answerable to the people in the project area, as well as the citizens of the country in general. All people should be aware of their roles in the project and the planning of activities of the project. Accountability of concerned community members must be ensured, particularly after the decision is taken.

Information Feedback and evaluation

Project managers and Often there is interaction at the beginning of the project but no dialogue or any other form of interaction occurs during the project. This ultimately creates a gap between proponents of the development projects and the communities. Consequently, the local people abandon a project based on such an idea. Therefore, it is suggested that there should be on-going communication throughout the project period (Okolie, 2011).

Ownership and Management

Participation as a principle encourages stakeholder management and the management of development efforts by the project team and the communities. Ownership and control of resources have a profound impact on participation in development projects (Mathbor, 2007). Ferrer (2005) emphasized four areas to be worked toward in a participatory coastal resource management program as; greater economic and social equality, better access to services for all, greater participation in decision-making and deeper involvement in the organizing process resulting from the empowerment of people.

Sharing Benefits

Housing projects that involve public and private partnerships struggle to share the benefits with communities. In South Africa, government hires contractors to build low-cost houses and it is evident that without sharing the benefits of the project, participation is a frustrating process for the poorer people. However, victory is realised when beneficiaries from local communities receive their keys for the low-cost houses that are different from the shacks. United Nation Environmental Programme (2013) notes that there should be a fair and equitable distribution of benefits, as well as redistribution of goods and services, to enable poorer people to get a fairer share of society's wealth and to participate fully in the development process. The Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP, 1984), a regional rural development organization in South Asia, alluded on three distinct processes of participation as based on; (1) the involvement of the people in decision making, (2), eliciting of their contribution to development programs and in the sharing of benefits acquired through the development process.

Partnerships

Partnership in development processes allows stakeholders to work, talk, and solve problems with individuals who are often perceived as the masters. Collaborations and public and private partnerships (PPP) are encouraged in the provision of human settlements in South Africa resulted. These kinds of partnerships in South Africa are not pro-poor, and have failed to sustain development in some local communities (Juta and Matsiliza, 2014). Wilson and Whitmore (1997) identified a set of principles for collaboration in a variety of settings and situations. These include non-intrusive collaboration, mutual trust and respect, a common analysis of what the problem is a commitment to solidarity, equality in the relationship, an explicit focus on process, and the importance of language.

RESEARCH METHODOLOGY

The study design employed mixed methodology for collecting and analysing data. A mixed methodology is the combination of both qualitative and quantitative research methods where data was triangulated from both qualitative and quantitative sources (De vos.et.al. 2011). The research project was conducted between 2014 and 2015. The study drew respondents from the beneficiaries of the houses built from 2008 to 2010. Stuart and Wayne (2009:29) describe a population as any group that is the subject of research interest. It refers to any whole group of subjects or things which have the characteristics identified for research purposes. The primary sources of data were extracted from the transcripts of questionnaires, individual and focus group interviews, observations and literature review. Participants included government officials from the City of Cape Town, project team members, ward councillors, residents and beneficiaries of low-cost houses on Khayelitsha (Site C) and stakeholders. Secondary data was obtained from the literature review of relevant articles in accredited journals,

books, monographs, electronic journals, policy documents, and reports from the Department of the National Housing, Department of Provincial and Local Government and the office of the Auditor General (AG).

Observations were conducted by the researcher in Khayelitsha. Informed consent was applied when the aims and objectives of the study and researchers credentials were declared to the participants and government officials. Honesty, respected and privacy for identities of the participants during data collection and report writing was observed.

THE PRESENTATION OF FINDINGS

Factors affecting the provision of low cost Housing in Khayelitsha

The following section will present and interpret of findings from the responses of the participants:

Understanding of housing policies and projects

When participants were asked to respond to the question on whether they knew and understood the current government policies on housing in South Africa, 60% of the participants indicated that they knew the RDP policy that was formulated by the ANC government, and that's why they also received the RDP policy. It was difficult for some participant to remember any policy after the Mandela administration. The participants showed distrust to the current government in implementing houses policies. They indicated that they are only told about government policies during elections, so that they can go and vote for the new government or when they are being evicted.

In analysis, the views of the participants revealed that there is a need for education on policy development in houses through community participation. The majority of the respondents strongly agree with the above statement as they wish to have their own healthy environment where there are no dumping sites close to their dwellings and rampant diseases that affect them and their children. On the other hand business community members say their businesses will collapse because once the residents have been moved to houses they will not have enough space to operate their business.

The 20% of participants indicated that they were aware of housing development projects and in their local area. However, about 30% were not certain, and 50% of the respondents disagree. Most of the respondents that claimed that they were not aware of the project indicated that they have been living there for few years and they have no interest of staying longer. The existence of Kuyasa non-profit organisation Khayelitsha benefits the area; by mobilising the poor and train them to be pro-active in development projects and to be self-reliant. They stated poor communication among project managers, Government and the Khayelitsha (Kuyasa) steering community meant that there was a need to strengthen ties between the community, Kuyasa and the local councillors and work together in decisions affecting the community.

Extent of participation in community events and housing projects

Community involvement and participation in common activities is a key element in identifying the existence of social capital in practice and facilitation of community development projects (Mukorombindo, 2012). In opposition to this, social nonconformity undercuts community solidarity and cohesion. Participation in informal community activities and in civic associations is a form of social networking which enhances the prospects for sustainable communities (Mamba 2008). The research findings found that only low levels of participation existed, such as cultural activities and sports. Indeed, when asked openly about belonging to community-based organizations (CBOs), 80% of the respondents indicated that they don't belong to CBOs.

During the planning phase of the RDP housing development in Khayelitsha, residents were not consulted by the state in any shape or form; no community input or local expression of views was incorporated into the planning phase. Hence, when asked if they were encouraged to participate in the planning phase of the housing

development programmes, all respondents claimed that no such encouragement was forthcoming from the state. In fact, all residents claim that they have been totally excluded from any engagement in community development initiatives and that this absence of engagement has effectively destroyed any prospects of a sense of community belonging, identity or pride. Khayelitsha residents feel isolated and excluded from the state.

One male participant noted:

We are not proud of how the streets and the houses were built; they should have asked us what is good for us. As a community we feel excluded by the municipality (May 22, 2014).

The municipality only told them that houses were going to be constructed but they were never involved in the planning process.

One member from Human Settlement Directorate Strategy and planning noted:

Problem of Khayelitsha in general is the density of the area. That result to the high shortage of houses and this makes it difficult to reach everyone in communication. Our strategy is to put notices on the community newspaper and have extended sub-council meeting. We also rely on the ward forums which re have realize that they are political dominant. All this makes us not to be fruitful in executing our planning to reach more people. When we do our planning we do it in the council chambers and as far as our thinking is concerned, we cannot do planning with communities as this might take long.

Lack of capacity

The legacy of the past resulted in a depressed housing sector which lacked capacity, both in terms of human resources and materials to provide housing speedily. The last strategy is that of supporting the People's Housing Process (PHP). The PHP offers training and technical support to families who own undeveloped, serviced property and who want to apply for a housing subsidy to build their own homes (Cape Gateway, 2007). By contributing their labour, as opposed to paying someone else to build their home, these families are able to use their Housing Subsidy and personal contributions to build bigger or better houses for less money. Houses built through the PHP are larger (36m²) than those built by the Council (30m²) (Cape Gateway, 2007). It is important to note that The PHP is not a subsidy. It is an agreement between groups of people who qualify for housing subsidies to pool their resources and contribute their labour to the group, so as to make the most of their subsidies (Cape Gateway, 2007).

Insufficient land

Slow and complex land identification, allocation and development processes resulted in insufficient land for housing development purposes. Land on the periphery is cheaper and therefore more 'affordable' for low income development. The subsidy does not adequately provide for land costs in the Western Cape: typically only up to about R1000 of the subsidy amount can be used for the cost of raw land, whereas the actual cost of raw land for subsidy housing in Cape Town, even in peripheral locations and for small plots less than 100m², has been up to R3000 per beneficiary (Department of Local Government and Housing, 2005: 17). These developments are usually mono-functional settlements, removed from employment, economic, social and transport opportunities. This consumes a variety of insinuations with respect to time disbursed away from home, time roving to and from job openings, and related cost inferences (Department of Local Government and Housing, 2005). At the time of the democratic elections, South African cities were characterised by dire housing and services backlogs, inequalities in municipal expenditure, spatial anomalies associated with the 'apartheid city', profound struggles against apartheid local government structures, high unemployment and many poverty-stricken households (Pillay, Tomlinson & du Toit, 2006).

Inappropriate housing standards and quality of life

Infrastructure, service and housing standards are inappropriate to the needs of a low-income market, resulting in difficulties in providing affordable housing products. As per the Subdivision of Housing (2004), there are a number of limitations hindering the provision of housing that has added to the weakening in the number of units built per annum. The South African government entered a new phase of the housing programme in 2002, aimed at addressing many of the inadequacies in sustainability of housing provision.

The participants raised serious concerns about the low-standards and quality of the low-cost/ RDP houses they were living in. They assured that there was a relationship between the apartheid spatial planning and inappropriate housing standards that have compromised many lives. They assured the researchers that some of people living in the RDP houses in Khayelitsha are vulnerable to whether changes and later suffer from various ailments. When it is raining, occupants have to move around from spot to spot because the roofs are leaking. One female occupant aged 40 stated that the cracks:

...Allow cold to come through; my son is suffering from asthma so he is strongly affected by the cold weather. The houses are a total disaster when it rains; it is like a waterfall inside the house because of the cracks and the leaks (March 1, 2013).

Beneficiaries did not view their RDP houses as assets because of their poor standards and depreciating value.

Poor management of housing dwellings by owners

It has been revealed that some occupants had little or no knowledge of managing their own houses because they were not aware about housing policies and other local government policies in as far as renting and owning a house. Some occupants/ beneficiaries make mistakes by selling their houses at a lower cost as compared to the value of the houses. Some don't have money to pay lawyers and turn to unscrupulous operators for help who in turn steal their money. Furthermore, there is significant under-spending on budget for low-income housing by responsible housing departments, due to the lack of capacity particularly in municipalities, the sluggish transfer of state land to municipalities, a lack of collaboration from traditional leaders and the recent implementation of new housing policy measures (Department of Housing, 2004).

Housing backlogs and basic services

The department of human settlement (NDHS) made progress in the housing provision in the 90s. However, it is estimated that the backlog rose to approximately 200 000 new households each year. Nearby is little examination obtainable on the countryside housing condition and the Bantustans (City of Cape Town, 2011). Lack of access to even the most basic municipal services, limited or no access for the poor to land for housing, and a highly destabilised housing environment, added to the housing crisis. At the time of the democratic elections, South African cities were characterised by dire housing and services backlogs, inequalities in municipal expenditure, the spatial anomalies associated with the 'apartheid city', profound struggles against apartheid local government structures, high unemployment and many poverty-stricken households (Pillay, Tomlinson & du Toit, 2006: 1).

The housing glitches created by apartheid, and by the incomplete variety of the capitalist housing markets, have been intensified by the nonappearance of incoherence of the national housing policy. A frame housing programme can help produce occupation, skills and economic activity, both directly and indirectly, and should help ensure peace and stability.

CONCLUSIONS

This study was intended to analysis the challenges faced by Khayelitsha residents during housing developments. It was found that there was less acknowledgement and importance of community participation on housing trends. Even though government have provided legislation and policies over the years, there are still some gaps on the implementation of those policies. The challenges discussed in this article provide additional convincing evidence for government officials to improve in their efforts of project management and service delivery regarding the housing provision and other government-driven initiatives, which are meant to improve the well-being of communities. Challenges experienced by the community residents of Khayelitsha included; lack of information about housing development of low-cost houses, limited participation of community members, improper provision of land, poor quality of low-cost housed and poor infrastructure that is not pro poor.

It is further recommended that these findings serve as a frame of reference for the government to recognise the importance of including grassroots groups and communities in agenda setting and policy forums in order to recognise the needs and demands of these communities. The integration of participatory strategies in policy planning and the implementation of housing projects for the poor is imperative for participatory democracy and sustainable development to be a reality in South Africa. It is recommended that government of Western Cape and National government should recognise the existing community structures in development efforts and promote bottom-up approach instead of top-down approach. The researcher's findings contribute to the knowledge area of participatory democracy and sustainable development within the context of Public Management.

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FROM 2014 FIFA WORLD CUP TOWARDS THE OLYMPIC GAMES RIO 2016: THE RESIDENT'S EXPERIENCE & EXPECTATION

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ABSTRACT

This article presents the results of the quantitative survey conducted in Brazil, with a sample of 306 Brazilian residents during the 2014 FIFA World Cup in Brazil, in order to evaluate the perception of the residents about the sporting mega-event in the country. The study addresses three research questions in the context of sporting mega events: Given the experience of the World Cup, what was the resident perception? What are the residents' expectation for the Olympic Games? What can be done for the Olympic Games? The results showed that during the World Cup residents became more optimistic about the mega event, but are still suspicious for the Olympic Games and claim for a better use of public resources, better financial management, and improvement in public transport and urban mobility, and also the need for more planning, more involvement of the population in the pre-event.

Keywords: Tourism, Residents, Perception, Sporting Mega Events, Olympic Games, FIFA World Cup.

INTRODUCTION

In a short period, Brazil will have hosted two of the world most important sporting events: the FIFA World Cup, held in 2014 and the Olympic and Paralympic Games, in 2016. After the experience in 2014, the national and international expectations are that the Olympic and Paralympic Games will contribute to the country's economy generating jobs and income, increasing the number of visitors, infrastructure legacy and tourist facilities.

Prior and during the event, there are different stakeholders impacted and in this context. It is important to notice that more than different stakeholders, there are expectations and interests related to the event, regarding the private and the public sector, and not only tourists, but mainly the residents, are important actors in different moments of the event.

Recently, prior and during the 2014 World Cup, many newspapers and magazines reported abusive spending and additional costs of constructions, which in some cases were not even completed. Thus, the residents' reaction was indignation and distrust of public bodies. The lack of transparency and excessive spending made many residents against the mega event, with a constant scene of protests in the twelve host cities the year before the event. These factors have a national and international impact and creates insecurity for visitors, investors, and negative impact on the destination's image. The negative perception of the resident can be divided into two big spheres: what is related to the event that directly affects the resident (constructions, noise, streets and roads detours, traffic, increased prices due to the event, among others) and, the other sphere related to the dissatisfaction with the destination and country (corruption, lack of health care, education).

The debate around the impacts of mega events on the host community is vast; according to Werner et al (2015) several authors have discussed this matter, such as Balduck, Maes, & Buelens, 2011; Jones, 2001;

Ohmann, Jones; & Wilkes, 2006, just to cite some. It is important to notice that besides the negative impacts, there are the positive impacts that brings intangible benefits, such as promotion of the image of the hosting place, as Werner et al explain further:

While a number of studies point to the negative impacts (e.g., traffic congestion, excessive noise, increased pollution, inflated prices; Allen, O'Toole, Harris, & McDonnell, 2011), previous research has also demonstrated that events can provide benefits to the host community such as increased publicity, a more prominent position in the tourism market and hence a competitive advantage (Buhalis, 2000; orse, 2001; O'Brien, 2006). (Werner, Dickson & F Hyde, 2015, p.176)

For the development of a tourist destination, the use of data and studies with theoretical basis, like the one proposed by this paper, is important to identify the perception and expectations of the local population and can be a tool for public and private bodies to enhance the view of the residents on tourism. Furthermore, the importance of sharing accumulated knowledge in the context of mega events is a priority that cannot remain unseen. Werner et al (2015) highlights the value of knowledge-sharing in tourism networks, and the role that a mega-event can play in fostering knowledge-sharing:

However, individuals and organizations involved in organizing mega-events at a destination accumulate an extensive amount of tacit and explicit knowledge, such as knowledge in event planning and execution, and expertise in destination marketing, that could be transferred and reapplied for future benefits (Singh & Hu, 2008; Stokes, 2004). Knowledge management and transfer among organizations involved in organizing mega-events have attracted little research attention (Beesley & Chalip, 2011; Singh & Hu, 2008) (Werner, Dickson & F Hyde, p.174).

This article presents the results of a quantitative e-survey by means of the Google Forms platform conducted in Brazil, with a sample of 306 Brazilian residents during the 2014 FIFA World Cup, in order to evaluate the perception of the resident about the sporting mega event in the country. It aims to make a parallel between what the population believes that can be done for the Olympic Games, taking into consideration the previous experience with the 2014 World Cup, noticing that there are differences between both mega events. In this sense, this study addresses three research questions in the context of sporting mega-events: Given the experience of the World Cup, what was the resident perception? What are the residents' expectations? And finally, what can be done for the Olympic Games?

The results show which issues should be prioritized in the view of Brazilian respondents: the need for more planning, more involvement of the population in the pre-event, better use of public resources, security, better financial management, and improvement in public transport and urban mobility.

LITERATURE REVIEW

The completion of a sporting mega-event implies on the mitigation of evident issues, such as, the high opportunity cost, financial mismanagement, among other aspects, but they should also be considered when conducting a more detailed and scientific study of mega events. In a previous study, Lohmann et al (2014) showed that in the period before the World Cup in Brazil, according to results obtained on a survey with the residents of the city of Rio de Janeiro, it became clear that negative variables such as price increase and financial loss had a high level of agreement among the residents' opinions. The only exception was regarding the possibility of residents' resistance upon arrival of tourists for the World Cup, as a vast majority disagreed that there would be any negative reaction of this kind. Thus, "it is important to measure the perceptions of local residents in order to identify the tangible and long-lasting benefits" (Bob & Swart, 2009 *apud* Hermann et al 2012). Having the resident's opinion about the completion of a major event such as the World Cup can unveil the acceptance of tourism and its impacts on the host city.

An event of this magnitude involves significant investments and generate an intense flow of people in a short period. During the event, local managers face different challenges to meet the needs of the participants. For the organizers of the events in the host cities, the experiences gained in each of the previous editions in other countries may add to the planning of future events. However, as each experience is unique and as each event

occurs in a given socio-economic context, the positive and negative results will be measured over time, in short, medium and long terms.

It is important that the diversity of opinions and needs are taken into consideration when planning a mega event, since the infrastructure and results of the event will be of the population use. The residents cannot be seen as a mere observer of the changes, they should be able to participate and comment on the changes that the urban space goes through. Ideally, the resident, as a stakeholder of the event, should not assume a passive position, but feel engaged with the development that the city is through. In case the engagement does not happen, there is a possibility that the shortage of community participation leads to a lack of support “and, as a result, to an increase in negative perspectives on further development, something which is of great importance since the success of tourism and events requires the host community’s support” (Gursoy & Rutherford, 2004 *apud* Pappas, 2014).

These assumptions lead to the ground principle on sustainable tourism, which is that the tourism activity is only good for tourists when it is good for the resident population (Krippendorf, 1984). The tourist is treated and many times perceived as a traveler or participant rather than a massive and generic consumer, as he experiences the destination, the local culture, the gastronomy, the history, the contact and exchange with local people in a unique way. The best and most sustainable combination is when travelers and residents take both advantage of tourism, “in which development and progress are measured not only in terms of more income, infrastructure, better living conditions and higher GDP, but also in terms of more ‘Gross domestic happiness’”(Goodrich, 2000 *apud* Krippendorf, 1984, pp. XXVII). To be successful the mega-event derives from the same assumption: it must meet the resident's expectations and be perceived as somehow beneficial to the local population, since they are the most affected, before, during and after the event. Residents are the essence and the identity of a destination.

However, as literature shows, the authorities see as the main legacy of mega-events those related to economic impacts and generally do not give due importance to aspects that will influence more positively on people's lives, such as basic infrastructure for the population – which should be improved also for tourists, who will visit the destination during the event period. Among these aspects, we see the creation of temporary jobs, specially, increased tourism in number of visitors, bringing foreign exchange to the country, international projection of the destination’s brand, among others.

Concerning legacy in terms of effects experienced by the destination that receives mega events, it is important to separate both tangible and intangible impacts associated to hosting a major event. Poynter (2006) assumes that the legacy can be included in two categories: tangible and intangible, in which the tangible are related to all the infrastructure built because of the mega event and intangible, being difficult to measure, more related to the city branding and marketing and the nation's civic pride as a result of hosting the event.

Furthermore the author emphasizes that “Some analysis have suggested that host cities benefit more from the intangible rather than the tangible” (2006, p. 8). Cornelissen & Maenning (2010) relate the intangible experience to the “feel-good effect” which is a “sense of communal wellbeing” (Swart & Urmilla, 2013, p. 257) that mega-events can arouse in the local community. Poynter (2006) explains the effects and differences between tangible and intangible experiences when he states:

Cities experience both tangible and intangible (e.g. reputation) effects, with naturally the intangible being difficult to quantify and, finally, when cities have associated their bid to host the Olympic Games with a wider regeneration or economic development plan [...], it is difficult to distinguish specific Olympic-related effects from those that might have occurred even if the Olympics had not taken place. (Poynter, 2006, p. 8)

The difficulty to distinguish the mega event-related effect is clearly the case of Brazil when hosting mega events such as the FIFA World Cup and the Olympic Games. The population has difficulty in distinguishing the changes happening and, relating them to the mega-events that the city hosts. Especially in Rio de Janeiro, it was difficult to identify works that are part of Olympic projects and those that are for the World Cup and those that would have happened regardless of hosting mega-events. Most part of this misunderstanding

may be associated with the way that the population receives the information, related to the lack of transparency on the way the government communicates with the people, for example.

Studying and publishing data collection results about the residents' perception can help governments and private sector to understand the population needs and communicate better with them. However, Roche (1992) *apud* Hiller & Warner (2011) has noted that mega-events are sociologically complex, with different meanings for different people and he argues that analysis must be based on the micro local level of contextualization. The authors explain further about the miscellaneous of attitudes and opinions:

Host city residents can be proponents, opponents, or apathetic to the Games; they can be marginalized, displaced, or willingly seek supporting roles; they can be employers or employees of organizations directly or indirectly related to the Games; they can be volunteers or consumers; they can experience the Games in person, vicariously through the media, or they can participate in Games-related activities (both pro-Games and anti-Games); or they can be part of discourse about the Games or experience its contextual ambiance (Hiller & Warner, 2011, pp.884:885).

This complexity can be explained by the fact that residents are not a homogeneous group of people. There is the level of participation factor and the idiosyncrasy of individuals. It is a psychological matter as well, which implies in a much difficult way to measure people's opinion about a certain subject, especially when the object of study is related to what affects their daily life.

METHODOLOGY

The present article was developed based in the literature review and primary data collection, using the e-survey as a tool. In order to understand the methodology of the e-survey research it is important to highlight the benefits of using this tool in the field of academic research. New technologies promote possible gains for the development of scientific knowledge, and in this direction, the rise of the internet has brought an alternative means of data collection besides the traditional way of obtaining primary data. In addition, a series of studies enriches the literature on the subject, providing worth references and addressing issues such as the way of collection, the respondents' approach, sampling and quality of responses. Couper (2005), points out that the development of new technologies brought to the world of the research new means of data collection such as self-report interview by computer, automated systems of telephone interviews and web interviews. For the OECD Statistics Directorate (2015), a survey is "an investigation about the characteristics of a given population by means of collecting data from a sample of that population and estimating their characteristics through the systematic use of statistical methodology".

Regarding sampling issues, Watt (1997) draws attention to the self-selection of respondents. This occurs when anyone with internet access can fill out the questionnaire. For Watt (1997), the rate of completion of this type of sample selection survey is low in relation to traditional selection methods. On the other hand, the increasing need for rapid and valuable information requires the development of new methods for the collection and processing of data over the Internet so that the traditional techniques combined with new tools can provide dynamism, efficiency and the reliability required. The data collection for this study occurred, between June 27 and July 20, 2014, by means of an electronic questionnaire structured in Google Forms, which consisted of 21 questions divided into four thematic blocks: 1. Perception of impacts on tourism; 2. Perception of economic impacts; 3. Perception of impacts on infrastructure and public services; and 4. the respondent profile.

Among the questions, there are three open qualitative questions and the others are objective quantitative, which consisted in questions with categorical responses, dichotomous (Yes, No) and scalar (Likert) with five levels of agreement (1. Strongly disagree; 2. Somehow disagree, 3. Neither agree nor disagree, 4. Agree partially, and 5. I fully agree). This article has its focus on the analysis of the qualitative question: Given the experience of the World Cup, what do you suggest to be done for the Olympic Games? For open questions, an initial treatment was done in the database for possible corrections of typos. After this first step the R software was used to "count" the most cited words and then create a "Word Cloud", which is "an image composed of words used in a particular text or subject, in which the size of each word indicates its frequency or importance" (Oxforddictionaries.com, 2015). The e-survey was disseminated by means of direct

mail and disclosed in communities related to tourism and the World Cup, besides researchers' contact lists on Facebook. Due to its exploratory nature, the survey consisted of a free sample to the total of 306 auto selectable respondents in Brazil, according to the availability and interest in the subject matter.

The method used was a simple random sampling, for this method the sample size can be calculated from the following equation (Bolfarine & Bussab, 2005, p. 69-70):

$$(1) \quad n = \frac{z_{\alpha}^2 \times \sigma^2}{e^2}$$

Therefore, to determine the size of a sample is necessary to fix an acceptable margin of error (e^2), with a level of trust (z_{α}^2) and some prior knowledge concerning the population standard deviation (σ^2). Setting the first two measures, we have a maximum error of 5,6% ($e = 0,056$) with a level of trust of 95% ($z_{\alpha} = 1,96$). As the measure of variability is unknown and whereas the variable of interest has dichotomous characteristics which we wish to maximize its variability we have $\sigma^2 = 0,5^2$. With the parameters listed (or its estimates), we have the equation:

$$(2) \quad n = \frac{1,96^2 \times 0,5^2}{0,056^2} \rightarrow n \cong 307$$

Taking as a reference the example of sample size calculation, it is noted how closely the amount of obtained questionnaires (306) is from the calculated sample size, and therefore very close to statistical significance criteria of confidence (95%) and margin of error (5,6%) of the survey.

RESEARCH FINDINGS

By analyzing the data, it is possible to understand the respondents' perception about World Cup and their expectation about what can be done for the Olympic Games in their view. Before presenting the results, it is important to understand the respondents' profile. Most part of respondents are from the State of Rio de Janeiro (60,8%), followed by São Paulo (17,3%). Both are important economic regions in Brazil and represent the highest GDP of the country. Males represent 52% of the public who answered the e-survey, which is very close to the female number of respondents (48%). Most of the respondents have a high level of education, noting that 30,7% have a complete college degree, 20,3% an incomplete college degree and 15,7% has MBA or other Master Specialization degree. In addition, the income is high in most of the cases, where the majority (33%) has a monthly income in the range of R\$ 7.241 to R\$ 14.480, which is considered above the standard average in Brazil.

The first issue that the e-survey aims at understanding is whether respondents perceive Brazil as a good choice to host the World Cup. In the survey conducted during the event, 76.1% of the respondents approved the choice of the country to host the event. After a troubled previous World Cup period, in which the event was widely questioned by the population, it is clear that residents changed their opinion during the event, probably due to the festive moment or the feeling of security, for example. In the question that whether the perception about the mega-event during the World Cup has improved, worsened or remained the same, the majority (69.5%) said they had improved their perception. While the perception remained the same to 27.5% and only worsened to 3% of respondents. This changing of perception of a mega-event by the residents can occur along the different moments of an event – before, during and after. Hiller and Warner (2011), for example, confirmed this change of perception when they conducted a research about public opinion in 2010 Vancouver Winter Games.

The data about the tourism sector is very positive, as almost 84.9% of respondents agree that the World Cup was a good outreach to the tourism of host cities. In addition, the majority of respondents (75.2%) perceived the improvements in the sector, caused by the event. Indeed, mega-events such as the World Cup or the Olympic Games can “offer the tourism industry of the host countries a unique opportunity to capitalize on their long-term market potential” (Singh & Hu, 2008, p. 930).

The sense of optimism during the course of the World Cup, concerning tourism and safety positive evaluations, does not cancel the public concerns with the organization of the next mega-event in the country, the Olympic Games. I.e., even if the opinions of residents were guided by the positive moment, when we asked them

to reflect about the future their grievances and demands about having an effective planning of public and private power were highlighted.

Concerning improvements in mobility, there is 59.5% of disagreement. Probably due to the problems in traffic, especially in match days with the increased flow of cars, as well as restrictions on subway lines, especially in areas near the stadiums that should respect a security perimeter. The experience of the World Cup showed that the public and private sectors were not able to comply with the completion of many promised works, or the costs were too high to have it done, which generated distrust of the population. Although it was not clear, in the period of the research, to which of the two events the works were intended, probably due to lack of transparency. When analyzing the answers to the subjective question about the Olympics – "Given the experience of the World Cup, what would you suggest to be done for the Olympics?" – The matter of urban mobility is the most cited with 29.4 % of mentions. I.e. the resident considered that the improvement in urban mobility, especially in public transport, should be prioritized in the organization of the next mega-event. For the analysis of this question specifically, it is particularly important to understand that most of the respondents were from Rio de Janeiro, as the city will host the event and the residents were directly affected by the preparation for the Games.

Another main issue mentioned was the need of improvement in the planning of works and financial management for the Olympic Games. Issues related to planning are 22.9% of the responses, showing how the population is concerned both with the result and with the progress of projects planned for the Olympics. The excess of works, many of them delayed, and additional expenses, usually to overcome delays, cause in the residents a suspicious attitude about the planning for the Olympic Games.

The dissatisfaction of the population is evident considering that 8.5% of the responses suggest that the Olympic Games should not happen. This is the third highest incidence of responses, indicating that the problems arising from lack of planning and transparency are negatively affecting the population. This dissatisfaction is confirmed when 7.8% of respondents mention that the completion of the planned works should be prioritized for the mega-event. It is worth noting that residents have expressed the importance they give to the infrastructure investment (5.9% of mentions). Meaning that although they are not satisfied with the planning of the works and its completion, the population see the investment in infrastructure as a major legacy of mega-events.

The image below shows the "Word Cloud" generated by the words most cited by respondents. In the figure, it is possible to visualize that "Urban Mobility", "Planning" and "Not having the Olympics" are the most apparent words, being the ones that were most commented:

Figure 1: Word Cloud of the answers for the question "Given the experience of the World Cup, what would you suggest to be done for the Olympics?"



It is also possible to visualize expressions like "Conclusion of works", "Infrastructure investment", "Financial planning" and "Population involvement", which is related to the wish to have a better planning in general and its communication to the residents.

CONCLUSIONS AND FUTURE STUDY

The residents are important stakeholders of a mega-event host destination and their perception and experience must be considered in order to plan a better event and obtain success. Individuals accumulate knowledge that is only shared if the individual is willing to do so (Beesley & Chalip, 2011 apud Werner, Dickson & F Hyde,

2015). Rio de Janeiro hosted the World Cup 2014 and in a 2 year interval is hosting the Olympic Games 2016. There is a lot to learn with the residents' perception and their prior experience. The host destination and its private and public bodies, national or international institutions involved with the organization of a mega-event should stimulate the process of transfer of knowledge by taking into consideration different stakeholder's accumulated knowledge and perception. In special from the resident's point of view, concerning their World Cup experience and their expectation to the Olympic Games. The survey results point out some key points that must be considered in the planning of the next coming event and can add efforts to its success as: better financial management, corruption constraint, improvement in urban mobility and infrastructure, and better use of public and private resource. Allen et al (2003) state that it is common the use of a mega-event to promote a country, but in times of national and international crisis, there must be a mindful use of a mega-event to promote a country, even more if there is little or no involvement of the residents.

Regarding the main issue pointed out by the interviewed, the urban mobility, what could be done to improve the perception of the residents on this issue besides creating a better mobility system? Some mobile applications (apps) can be very helpful in this case and can assist travelers and residents by providing easy access to information anytime and (almost) anywhere (Wang, Park & R Fesenmaier, 2012). For example, with the help of technology, apps like "Waze", a road-conditions and traffic app for smartphones that indicates the best way to reach to a destination. There are also apps that give you several public transportation options and the time to the destination, such as "Moovit" app. The main idea is to improve the experience of the user, either residents or tourists, to know the best options for moving in the city, and knowing in advance the route, the combination of means of transportation and time estimated time of arrival.

Technology can contribute with solutions to improve the resident and tourist experience as well as the management of large events reducing and mitigating problems of communication, mobility, security and even public transparency. With mobile apps, websites or information available in real time to users of certain online information platform is a way to increase people's involvement with the mega event and enhance the tourist or resident's experience.

About this topic in particular, Decelle (2006) points out that the emergence of new information and communication technologies have been especially influential in the realm of tourism. In this context, it is important to notice that the theme of innovation can become a legacy of achievement of the mega-event itself both for locals and for tourists who visit destinations. Both residents and tourists must benefit from it. This statement reinforces the importance of realizing local resident as a major stakeholder in the event, since its positioning will reflect on the event, as well as in tourism.

Future studies should conduct a face-to-face interview with residents in Rio de Janeiro, the host city of the Olympic Games, in a way to identify the needs, experience and expectations about the mega event in different moments (prior, during and after), engaging the inclusion of the resident in the process of hosting the event. In order to feel more integrated and supportive to the event, the residents should be able to follow the pace of the works and construction through a clear channel, such as an integrated communication media work. This way, making use of the technology and globalized communication, to shorten the relation and better knowledge about the events constructions, planning.

Some authors (Lewis, 1998; Latkova & Vogt, 2012 *apud* Pappas, 2014) point out that the community could undertake planning participation in an effort to offset some of the more negative impacts. This should give the residents a more positive perception regarding the transparency of the events. Moreover, might be interesting to improve and develop researches about how the community, public, and private sectors can take advantage of the new technologies in a daily basis, especially in the context of hosting mega events. Allen, J et al. (2003). *Organização e gestão de eventos*. Rio de Janeiro: Elsevier.

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SUSTAINABLE MANAGEMENT IN CENTERS FOR DIFFUSION OF SCIENCE, EDUCATION AND CULTURE: AN ORGANIZATIONAL INNOVATION IMPLEMENTED BY RIO PLANETARIUM

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ABSTRACT

This article aims at discussing relevant sustainability issues that could be particularly effective for Centers for Diffusion of Science, Education and Culture (CDSEC), especially those that aim to implement a sustainability-oriented management, considering the multi-dimension and multi-level nature of analyzing the phenomena of corporate sustainability, taking into account contextual influences and emerging processes. By way of illustration, it presents an organizational innovation implemented by Rio Planetarium in the last two years, namely the adoption of a sustainable management model, supported by a participative strategic management process aligned to corporate sustainability principles.

Key words: Sustainable management; organizational innovation; centers for diffusion of science, education and culture; Rio Planetarium.

INTRODUCTION

From June 20 to 22, 2012, Rio de Janeiro hosted the United Nations Summit on Sustainable Development, known as Rio+20 Conference. World leaders, along with thousands of participants from governments, the private sector, NGOs and other groups, came together to shape the global debate on ways to reduce poverty, advance social equity, and ensure environmental protection on an ever more crowded planet. In the wake of Rio+20 Conference, Rio Planetarium initiated in the same year a process of significant changes in its management model towards sustainability. From the perspective of its stakeholders, Rio Planetarium put sustainability at the heart of its management. Aligned to its long-term role of diffusion of Astronomy and Related Sciences, the institution began to think explicitly and intentionally about what sustainability is and why it matters to its present and ... future.

Sustainability means ‘meeting the needs of the present without compromising the ability of future generations to meet their own needs’. Sustainability is usually considered under three pillars – environmental, economic and social – according to triple bottom line (TBL) concept first introduced by John Elkington in the late nineties (Elkington, 1998). Sustainability also concerns the long-term role of organizations and their relationships with communities, as well as the future of the planet. From the perspective of Centers for Diffusion of Science, Education and Culture (CDSEC), sustainability is associated to education, culture, entertainment, economy, tourism, community and social engagement. Getting the balance under three pillars is vital to secure a stable future. There are two processes that people who work for and with CDSEC can use to augment key

resources thereby helping increase sustainability: planning and collaboration. It is often said that planning is the process used to manage the future. Generally, planning is an effective strategy for CDSEC sustainability, because it helps them to anticipate their needs and allocate resources more efficiently and effectively. The second process concerning collaboration is also powerful for increasing sustainability because it can reduce the need for scarce resources and enhance community engagement.

The adoption of corporate management by CDSEC involves applying and improving some managerial practices, which can enhance the centers' social, cultural, and economic output. Given these considerations, the aim of this paper is to discuss relevant sustainability issues that could be particularly effective for CDSEC, especially those that aim to implement a sustainability-oriented management, considering the multi-dimension and multi-level nature of analyzing the phenomena of corporate sustainability, taking into account contextual influences and emerging processes. By way of illustration, it presents an organizational innovation implemented in the last two years by Rio Planetarium, situated in the city of Rio de Janeiro (Brazil). Namely, this innovation refers to the adoption of a sustainable management model, supported by a participative strategic management process aligned to corporate sustainability principles.

In general, the creation of a 'Sustainable Strategy Map', as in the case of Rio Planetarium, allows organizations to evaluate and implement environmental and social initiatives within a strategic view, at all levels of the corporation. We understand that the organizational innovation here described was situationally unique, but there are general elements of the sustainable management model implemented by Rio Planetarium that can be replicated by congener institutions. We strongly believe that the dissemination of this organizational innovation can contribute to significant institutional changes towards sustainability in these Centers.

THEORETICAL BACKGROUND

The theoretical background encompasses the following themes: (i) corporate social responsibility (CSR); (ii) balanced scorecard (BSC) and sustainable alternatives; and (iii) measuring corporate sustainability performance.

Corporate social responsibility (CSR)

The concept of corporate social responsibility (CSR) is associated to the engagement of the stakeholders and to the corporate sustainability in its economic, social and environmental dimensions, as a resultant of sustainable development from the business perspective. Indeed, this concept has been consolidating itself in a systematic and multidimensional way, with a focus on interdependence and interconnectivity between different stakeholders connected directly or indirectly to the enterprise business. Actually, corporate social responsibility (CSR) has been pointed as a phenomenon that has led enterprises to rethink their role, their obligations, and, even more, the way they manage their businesses. It can be also defined as a holistic, socially responsible and ethical attitude of enterprises in their relationships, namely with shareholders, employees, communities, suppliers, clients, governments and the environment (Carroll, 1991; Figge *et al.*, 2002; Zadek, 1998). The most general and accepted concept of SR refers to four categories defined by Carroll (1991). The Carroll's model includes economic, legal, ethical and voluntary responsibilities. These categories are not mutually exclusive, having on one side economic interests and on the other social interests. The relevance of Carroll's model stems from the basic assumption that social responsibility should not be assessed separately from the economic performance, thus being part of the global responsibility of the enterprise. In this work, we emphasize that enterprises should integrate social and environmental criteria at the normative level of strategic management of their businesses, translating these criteria into objectives and goals, whose results and performance can be measured in a systemic view.

The increased competition and resource shortage have made CDSEC to rethink their purpose and mission to serve the public with a vision of visitors' long-term satisfaction. The International Council of Museums (ICOM) reinforces this belief by arguing that the purpose for which any museum operates is to serve the development of the society: "a museum is a non-profit making permanent institution in the service of society and of its development, open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, the tangible and intangible evidence of people and their environment" (ICOM, 2013).

According to Andoniadis (2010) and Bagdali and Polino (2006), modern CDSEC should create value for their visitors through rapid innovation, high quality products and services, extended hours of access, and the wide range of products and services they provide according to customer needs. Service differentiation and diversification strategies enable these CDSEC to increase their number of visitors as well as their own income. Therefore, quality and innovation have been regarded as a source of competitive advantage and higher performance indicators have been pursued.

Balanced Scorecard (BSC) and sustainable alternatives

Balanced Scorecard or BSC is a tool of strategic planning and global performance assessment that became commonly recognized as a system of strategic management, communication and performance evaluation by various organizations all over the world: enterprises, governmental agencies, and institutions of Science, Technology and Innovation (S,T&I). As defined by Kaplan and Norton (1996; 2004), the BSC model translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system".

This strategic management system measures global performance in four 'balanced' perspectives: (i) 'financial', that summarizes "the readily measurable economic consequences of actions already taken"; (ii) 'market', that contains measures that identify the customer and market segments in which the organization will compete and the measures of the organization's performance in these targeted segments; (iii) 'internal process' that measures the critical internal processes in which the organization must excel; and (iv) 'learning and growth' that measures the infrastructure that the organization must build to create long-term growth and improvement. With an attempt to apply the BSC model in CDSEC, we will discuss in the next section the potential of the BSC model as a strategic planning tool for this particular context, within the perspective of corporate social responsibility.

Despite the success experienced by Kaplan and Norton regarding the acceptance of BSC model, since 1996, when their book titled "The Balanced Scorecard: translating strategy into action" was launched, authors as Bieker *et al.* (2001), Figge *et al.* (2002), and Brignall (2002) have argued that the use of financial and human resources did not figure anymore as the only determinant factors for promoting competitive advantages. From this perspective, the mentioned authors launched a different perspective concerning BSC tool, with an attempt to determine how organizations can benefit from a 'Sustainable Strategic Map', incorporating adaptations to the original concept formulated by Kaplan and Norton (1996).

To integrate the social and environmental aspects to conventional BSC, Figge *et al.* (2002) suggested three alternatives: (i) incorporation of the social and environmental dimensions in three of the original perspectives of the BSC; (ii) creation of a fifth perspective exclusive to the environmental and social dimensions; and (iii) creation of an exclusive BSC for the environmental and social sustainability, but dependent of one of the previous alternatives.

The conceptualization of each alternative reflects the fundamental difference between the three proposals. While the first two integrate the environmental and social aspects to the conventional BSC (with the creation or not of a fifth dimension), the third comprises of a variant that is a derivative of the previous ones. The third proposal is configured as a step before the adoption of a first sustainable BSC, almost as a refinement of this first solution. Concerning the two first alternatives, Figge *et al.* (2002) argued that they are not mutually exclusives, and can be used simultaneously, in accordance with the characteristics of strategic environmental and social objectives defined by the organization. Thus, it can be concluded that the choice by an organization among the three alternatives here presented will depend on the social-productive context in which it operates; on its relationships with stakeholders and on its organizational maturity level.

Considering the institutional characteristics of Centers for Diffusion of Science, Education and Culture (CDSEC), from 'Corporate Social Responsibility' perspective, we adopted the first alternative as a basis for designing a conceptual generic model to be implemented by these centers. It was assumed, in practical terms, that this alternative was the most simple and easy-to-apply and could effectively help these Centers to adopt CSR guidelines and to embed SR good practices in their operations and services.

Measuring Corporate Sustainability Performance

An ever-increasing number of CDSEC and other congener organizations want to make their operations sustainable. Moreover, expectations that long-term profitability should go hand-in-hand with social justice and environmental protection are gaining importance nowadays. From this perspective, CDSEC can improve their sustainability performance by measuring, monitoring and reporting on it. These initiatives can help them have a positive impact on society, the economy, and a sustainable future.

Among voluntary worldwide sustainability measurement and reporting tools, the Global Reporting Initiative (GRI) has rapidly become the leader, since its creation in 1999 (Brown *et al.*, 2007). The GRI guidelines offer reporting principles, standard disclosures and an implementation manual for the preparation of sustainability reports by organizations, regardless of their size, sector or location. The GRI guidelines also offer an international reference for all those interested in the disclosure of governance approach and of the environmental, social and economic performance and impacts of organizations.

In 2013, the Global Reporting Initiative released a review of its GR3 guidelines. According to GRI (2013), G4 version includes references to widely accepted and used issue-specific reporting documents, and was designed as a consolidated framework for reporting performance against different codes and norms for sustainability. G4 also offers guidance on how to present sustainability disclosures in different report formats. The emerging idea of integrating strategic sustainability-related information with other material financial information is a significant and positive development. They argue: “sustainability is, and will increasingly be, central to the change that companies, markets and society will be navigating”.

METHODOLOGY

The research methodology used to develop the model comprised: (i) literature and documental review on central themes and subthemes from the perspective of implementation of sustainability-oriented management in CDSEC organizational contexts; (ii) preliminary conceptual model design as a basis for the action-research project; (iii) planning stage of the action-research project initiated by representatives of Rio Planetarium together with the authors as researchers and change agents; (iv) action stage of the action-research project, concerning the strategic planning process of Rio Planetarium and definition of sustainability key performance indicators (SKPIs); and (v) conclusive stage, including a set of recommendations and suggestions for future works. Adaptive planning approach and action-research were considered as especially suitable for dealing with both – internal and external environmental changes – and for also allowing to use complex conceptual frames, which cannot be broken down, as stated by Eden and Huxman (1996).

The main author of this study coordinated a two-year action research project in Rio Planetarium, playing the role of change agent, as calls for the action research model developed in the Tavistock Institute, under the guidance of Eric Trist (Trist, 1976). The co-authors were directly involved in leadership and technical support of the project, reflecting and discussing with the coordinator the progress achieved at each step. The action-research project was depicted as a cyclical process of change (Foster, 1972; Eden and Huxman, 1996) and encompassed three phases: planning; transformation; and output. The cycle began with a series of planning actions initiated by representatives of Rio Planetarium (the ‘client’ organization), together with the main author (‘research-actor’). The main elements of this first phase included a preliminary diagnosis, data gathering, feedback of results, and joint action planning.

The second phase, also called ‘transformation phase’, referred to the action *per se*. This stage included actions relating to learning processes and to planning and executing behavioral changes within the Rio Planetarium organization. Feedback at this stage had the effect of reviewing previous planning to bring the learning activities into better alignment with change objectives of incorporating socio and environmental variables, in addition to economic factors, into Rio Planetarium’s corporate strategies and operations.

The change strategy associated to the model implementation was developed according to adaptive planning approach described before, promoting the gradual articulation of the parts within the whole, and at the

dimension of the strategic planning process, covering, more specifically, the process of formulation of objectives and initiatives concerning each dimension of a sustainable balanced scorecard, which resulted in the edition of a 'Strategy Map'. This map can be visualized by accessing the institutional site of Rio Planetarium (<http://www.planetariodorio.com.br>). It was necessary to begin the implementation of the model at the normative level, discussing issues of values with external and internal stakeholders, seeking to delineate how the corporate sustainability vision could be incorporated and reflected in the process of formulation of strategies for each SBSC dimension, and, latter, in the performance measuring and reporting.

The third phase of the action research project constituted the output or results phase. Again, data were gathered from the Rio Planetarium areas so that progress could be determined and adjustments in learning activities could be implemented.

A NEW MANAGEMENT MODEL: IN SEARCH OF SUSTAINABILITY

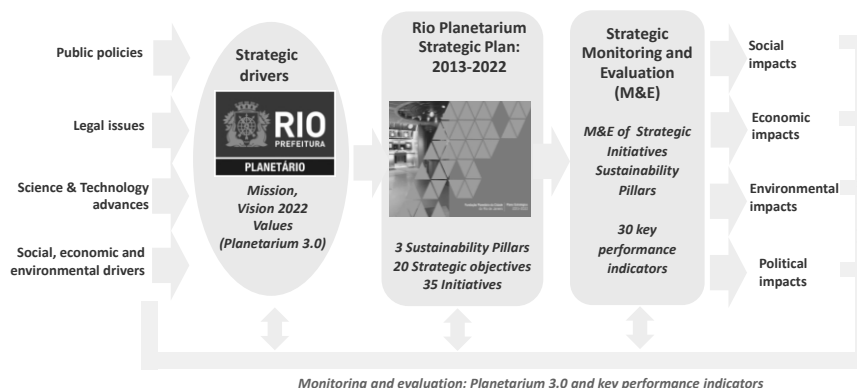
The conceptual model here presented was validated through a two-year action-research project carried out within Rio Planetarium, whose mission is "to disseminate Astronomy and Related Sciences through updated technology in a welcoming environment, offering visitors high-quality cultural leisure".

One of the assumptions for building a new management model based on the three pillars of sustainability was the establishment of a dynamic management required for economic self-sustainability; dissemination of Astronomy and Related Sciences in all social classes of Rio's population; and low-carbon operations. Such understanding supported both the design of new model itself and the way to develop and perform innovative services aligned to an inclusive philosophy of educational and cultural services. This philosophy was expressed by a set of values called 'Planetarium 3.0' – an allusion to the concept of 'Marketing 3.0' posed by Kotler *et al.* (2010), as follows:

- Innovation;
- Operational excellence;
- Transversality: culture-education-entertainment;
- Social equity;
- Universal accessibility;
- Human capital enhancement;
- Collaboration;
- Sustainability.

The new management model is presented in Figure 1. It integrates management and strategic planning good practices to the concept of 'Planetarium 3.0'. The core elements of this management model are: (i) analysis of driving forces from the external environment and diagnosis of strengths and weaknesses of the institution (internal environment); (ii) establishment or revision of Rio Planetarium strategic drivers - mission, vision, and values; (iii) strategic planning for defining strategic objectives, short, medium and long term goals, indicators and metrics for evaluating sustainability performance; (iv) deployment of strategic objectives and goals into action plans comprising Rio Planetarium Tactical Plan; and (v) systematic evaluation of sustainability performance based on the concept and values of 'Planetarium 3.0'.

Figure 1: Sustainable management model of Rio Planetarium



Rio Planetarium Strategic Planning 2013 – 2022: a participative and balanced process under sustainability pillars

Fostering a two-way, inclusive dialogue with stakeholders – range from collaborators, educational institutions, NGOs, to governments and civil society – was the key to the success of developing a participative and balanced process under sustainability pillars. There was an opportunity for their voice to be heard, or for them to influence the strategic planning itself and future outcome in some way. Guided by the concepts first introduced by Kaplan and Norton (1996), and further adapted by Bieker *et al.* (2001), Brignall (2002) and Figge *et al.* (2002), Rio Planetarium adopted the tool called “Sustainable Balanced Scorecard”, coined by Figge *et al.* (2002), aiming at an effective implementation of a strategy towards sustainability.

Strategy mapping started with creation of about 20 strategic objectives, which were the building blocks of Rio Planetarium’s corporate strategy. The objectives were then linked in cause-effect relationships to create a strategy map. Once strategic objectives were developed and the map was collectively created, institutional values (Planetarium 3.0), performance indicators and strategic initiatives could be clearly identified for each objective. The results were consolidated on a strategy map of Rio Planetarium, built in four perspectives: 'Sustainability', 'Customers', 'Internal processes', and 'Learning and growth'.

The scorecard tool provided a comprehensive framework that translates Rio Planetarium’s strategic objectives into a coherent set of action plans and key performance indicators and metrics. It represented a fundamental change in the underlying assumptions about performance and helped it to focus on institutional vision towards sustainability. It could demonstrate interrelated perspectives for examining Rio Planetarium’s success in resource accountability, intellectual production, public accessibility, and social and environmental perspectives of sustainability. By linking the 20 objectives at corporate level with the objectives at departmental areas, line-of-site alignment among institutional mission, corporate, departmental strategies, and personal goals could be achieved. Likewise, strategic initiatives and performance indicators could be linked to each objective. Table 1 below summarizes the results of Rio Planetarium’s strategic planning process.

Table 1: Rio Planetarium Performance Indicators associated to its Sustainable Strategy Map

Perspective	Strategic objectives 2013-2022	Initiatives
Sustainability	3	-
Customers	4	12
Internal processes	7	16
Learning and growth	6	7
Total: 4 perspectives	20 strategic objectives	35 initiatives

Measuring sustainability in Rio Planetarium: an institutional effort aligned to Global Reporting Initiative Guidelines

Developing a set of sustainability indicators for Rio Planetarium was a real challenge. The main purpose was to provide a set of key performance indicators that could be used to measure progress towards becoming a sustainable institution. The data gathering for communicate performance is also crucial, since sustainability reporting became a powerful way for institutions getting funding to help them achieve sustainability goals. Ultimately, a set of good indicators is a way of keeping an institution balanced, and making sure the outcomes of decisions that improve one area do not make another unsustainable.

At international level, the annual reports of some major science and history museums and planetariums of Europe and North America have made little mention of sustainability, although some relevant initiatives have been reported in the academic works (Pop and Sabou, 2013; Adams, 2010). In turn, as mentioned before, there are general guidelines and models for measuring sustainable performance – e.g. Sustainability Reporting Guidelines Version 4.0 (G4) from Global Reporting Initiative – which was designed to be universally applicable to all organizations, large and small, across the world. The features of G4 – to make the guidelines easier to use, both for experienced reporters and for those new to sustainability reporting from any sector – are supported by other GRI materials and services (GRI, 2013). Adaptation for the contexts of Centers for Diffusion of Science,

Education and Culture (CDSEC) and alignment to GRI Guidelines were the assumptions for building a set of key performance indicators associated to the four perspectives of Rio Planetarium Strategy Map.

CONCLUDING REMARKS

The sustainable management model and the process of strategic management presented in this paper were developed and implemented by a Planetarium in Brazil, more specifically by Rio Planetarium, located in the city of Rio de Janeiro. The whole process involved circa of sixty collaborators from the many different areas of Rio Planetarium and several representatives of external stakeholders.

From 2013 onwards, both the management model focused on sustainability pillars and the Strategic Plan (2013-2022) have been disseminated throughout all internal and external stakeholders in special meetings and seminars. We believe that other congener institutions can replicate the sustainable management model and the process of strategic management here described. From this perspective, we recommend:

- Establishment of local, regional or national policies to encourage balanced sustainability in all practices of Planetariums. This would contribute to the development of action plans for sustainability to be implemented by the focused institutions. Comparable data would be easily collected as most Planetariums would follow their state or municipal policies concerning sustainability;
- A set of benchmarks or targets should be established for Planetariums as reference points to guide these institutions on how to make their current practices sustainable. At international level, as suggestion, this initiative could be coordinated by the International Planetarium Society (IPS);
- Permanent improvement of management methods and practices under the sustainability pillars and dissemination of Planetariums' sustainability good practices through periodic meetings organized for this purpose (local, national or international meetings);
- Collective construction of specific guidelines based on the Planetarium experiences that could be addressed to Global Reporting Initiative as already occurred in other sectors that have specific guidelines based on their sustainability best practices.

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STRATEGIC TECHNOLOGY MANAGEMENT FOR INNOVATION AND SUSTAINABLE GROWTH: INTEGRATING FORESIGHT TOOLS IN DECISION MAKING PROCESSES

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ABSTRACT

Increased environmental and social responsibility awareness, while producing unique opportunities for sustainability-oriented innovations, has generated important challenges for companies. Based on the assumption that new technologies may support more sustainable business, the challenge of really integrating sustainability thinking into business processes is crucial. This paper aims at discussing the importance of sustainable growth thinking in business and strategic foresight as a backdrop to purpose a flexible toolkit for supporting strategic technology management in companies, based on Voros' conceptual model. The toolkit comprises operational modules that can be combined to address a range of R,D&I management challenges. Due to its flexibility and internal consistency, the authors argue that the dissemination of the proposed toolkit can contribute to significant organizational changes related to current corporate practices of strategic technology management.

Key words: Strategic technology management; sustainable innovation; strategic foresight; modular toolkits.

INTRODUCTION

The paradigm of sustainable development presents several challenges 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.

As the concepts of sustainable development and corporate sustainability were disseminated during the 1990s, this inevitably triggered tensions within organizations, prompting them to reassess their priorities and purposes. This required the adoption of business strategies that meet the needs of the firm and its stakeholders, while protecting and sustaining the resources that will be required in the future. Planning and organizational processes should integrate two of the basic dimensions of business on an extended scale: profitability and legitimacy. Normally applied to government spheres, the latter became perceived by economic agents through the expansion of social and environmental problems, becoming a crucial element in building up sustainable competitive advantages. Based on the assumption that technological innovations may drive more sustainable businesses, offering companies new options for creating value, the challenge is to discern how the companies operating in societal and increasingly more complex contexts can include the vision of economic, social and environmental sustainability - equally complex - in their strategic technology management processes.

As an attempt to meet this challenge, this paper aims at discussing the importance of sustainable growth thinking in business as a background to purpose a flexible toolkit for supporting strategic technology management in companies, based on action-research approaches. The toolkit comprises operational modules that can be combined to address a range of R,D&I management challenges. Due to its flexibility and internal

consistency, the authors argue that the dissemination of the proposed toolkit can contribute to significant organizational changes related to current corporate practices of strategic technology management.

The main question addressed here concerns the identification of the characteristics and guiding principles of an effective strategic technology management aligned to corporate sustainability thinking. Before purposing a flexible toolkit for supporting strategic technology management in companies, based on action-research approaches, we discuss the importance of sustainable growth thinking in business, advocating that the integration of sustainability thinking into research and development and innovation processes is in best business interests. For designing the toolkit, we establish the following assumptions:

- i. 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 e Milstein, 1999; 2003);
- ii. it is mandatory to develop ways of adapting and making compatible organizational processes and technologies, as well as embrace adaptive planning approaches that treats planning as an on-going learning process (Melo, 1985; 1991);
- iii. it is necessary to emphasize the essential role of learning in the process of induced change towards sustainability, as preconized by the transition management literature (Geels, 2004; 2005; 2006; Geels and Schot, 2007; Schot and Geels, 2007; Loorbach and Rotmans, 2006). This is made clear in the new field dealing with 'sustainability transitions' that has gained ground and reached an output of 60-100 academic papers per year;
- iv. the configuration of sustainable value creation directly points towards the larger system of which the firm is part, both technically and socially. It makes it clear that activities of the firm are embedded in the larger system (Boons *et al.*, 2013; Schaltegger and Wagner, 2011);
- v. in general, changes in established sociotechnical systems are more incremental than radical and such incremental changes are not sufficient to deal with the prevailing sustainability challenges (Saviotti, 1996; Raven and Geels, 2010).

To build the foundations for the toolkit here presented, this paper starts conceptualizing corporate social responsibility (CSR) from the business perspective, based on the assumption that emergent technologies and technological innovations may drive more sustainable businesses. Then, a theoretical framework integrating technology management and strategic foresight is presented, in order to provide the basis for building a flexible and modular toolkit addressed to socially responsible companies. The authors believe that the dissemination of the proposed toolkit, based on Voros' conceptual model, may foster significant organizational changes compared to prevalent technology management practices, still tightly focused on economic benefits of innovations.

THEORETICAL BACKGROUND

The theoretical background encompasses the following themes: (i) corporate social responsibility (CSR); (ii) strategic foresight (SF), with special attention to the works of Georghiou *et al.*, 2008; Keenan and Popper, 2007; Kuosa, 2012; and Miles, 2010; and (iii) strategic technology management supported by SF, as conceived by Voros (2001; 2003; 2005).

Corporate Social Responsibility

The bases for the current concept of corporate social responsibility (CSR) were launched by representatives of the World Business Council for Sustainable Development, in 1998, in Holland. The concept of CSR was associated to the engagement of the stakeholders and to the corporate sustainability in its economic, social and environmental dimensions, as a resultant of sustainable development from the business perspective. Indeed, this concept has been consolidating itself in a systematic and multidimensional way, with a focus on interdependence and interconnectivity between different stakeholders connected directly or indirectly to the enterprise business. As a matter of fact, corporate social responsibility (CSR) has been pointed as a phenomenon that has led enterprises to rethink their role, their obligations, and, even more, the way they manage their businesses. It can be also defined as a holistic, socially responsible and ethical attitude of enterprises in their relationships, namely with shareholders, employees, communities, suppliers, clients, governments and the environment (Carroll, 1999; 2000; Figge *et al.*, 2001; Zadek, 1998).

The most general and accepted concept of CSR refers to four categories defined by Carroll (1999; 2000). The Carroll's model includes economic, legal, ethical and voluntary responsibilities. These categories are not mutually exclusive, having on one side economic interests and on the other social interests. The relevance of Carroll's model stems from the basic assumption that social responsibility should not be assessed separately from the economic performance, thus being part of the global responsibility of the enterprise. In this work, we emphasize that enterprises should integrate social and environmental criteria at the normative level of strategic management of their businesses, translating these criteria into objectives and goals, whose results and performance can be measured in a systemic view.

Strategic Forecasting

For building a flexible toolkit for supporting strategic technology management in companies, we considered the main issues to which research efforts have been devoted in strategic foresight, based on recent literature (up to 2013) from future-oriented scholarly journals such as *Technological Forecasting and Social Change*, *Futures*, *Futuribles*, and *International Journal of Forecasting*, and also from the methodological contents developed by Laboratoire d'Innovation de Prospective Stratégique et d'Organisation (Lipsor), in France. Due to the qualitative nature of the innovation system framework and the methods of analysis that were employed for scenario building and strategic foresight, the research focus was on qualitative results and insights. A critical assessment of the work done up to 2013 on this theme showed the works of Georghiou *et al.*, 2008; Keenan and Popper, 2007; Kuosa, 2012; and Miles, 2010 as the most relevant for the development of the tool kit in focus.

Technology Management Supported by Strategic Foresight Tools

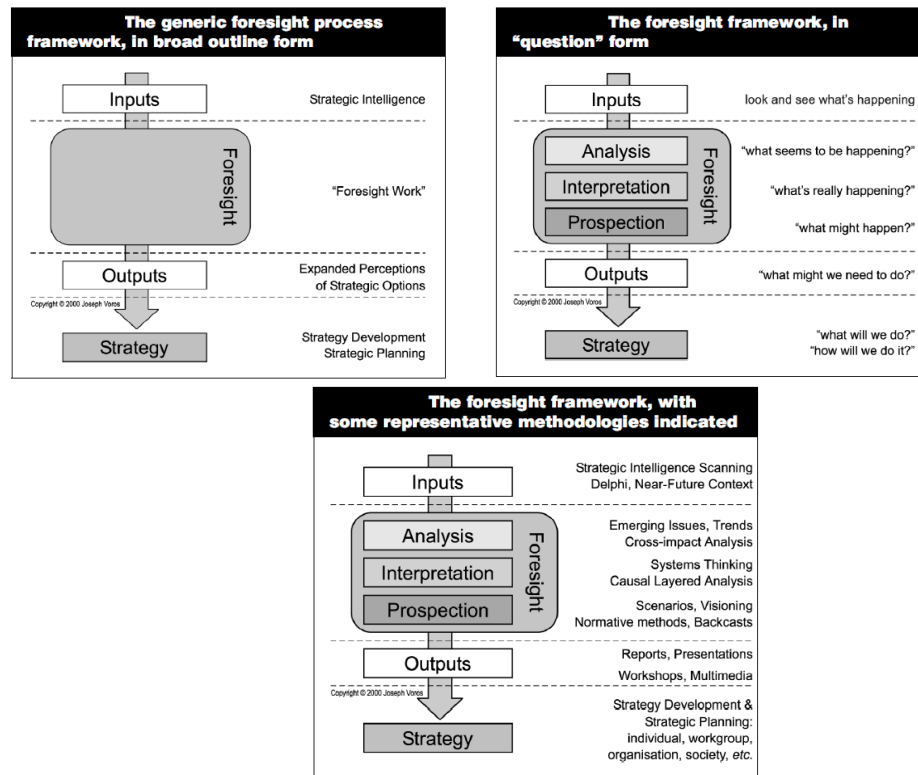
Strategic technology planning is a field of planning that is shifting from the traditional to more dynamic approaches, which incorporate alternatives and options generated by foresight activities. In particular, strategic foresight has been recognized as a more explicit and organized form of structuring and facilitating the process of thinking in the planning dimensions (Gavigan and Scapolo, 1999). For purposes of building a modular and flexible toolkit for strategic technology management, the conceptual model developed by Voros (2001; 2003; 2005) was adopted. It is represented in the three diagrams in Figure 1. The aim of Voros' model is to show that the activity of foresight precedes and subsidizes strategic decision making (what needs to be done?) and the formulation of the strategy (what will be done? and how to do it?). Inspired by the work of Horton (1999), the model structure comprises four phases: (i) inputs; (ii) prospection; (iii) outputs; and (iv) formulation of the strategy. The sequential structure proposed by Voros aims to add value to information obtained at the initial stage, transforming them into knowledge and, subsequently, in strategy. The comments on the right side of the schemas shown in Figure 1 indicate, for each phase, the type of activity to be conducted and the issues of support for such activities.

The goal of the initial phase - titled "inputs" - is to increase the collective perception in relation to topics of strategic interest to the company, seeking to answer the following question: "what's happening?". The aim is to obtain, efficiently, an overview of the macro and institutional contexts concerned with themes and associated topics to be considered. In this phase, it is possible to obtain a consistent image of these contexts and to define the scope of planning activities to be developed in the following stages. In other words, the "inputs" phase comprises the collection, organization and contents analysis of available information on the subject and its context, in particular studies, diagnostics, analysis and information services of intelligence and high added value. In this phase, are identified the social, technological, economic, environmental, political and legal constraints, that potentially influence the themes and topics in focus. In addition, the stakeholders that should be mobilized throughout the strategic planning process are identified.

In the second phase-"prospection" – the aim is to answer the following questions: (i) "what seems to be happening?"; (ii) "what's really happening?"; and (iii) "what can happen?". As represented in Figure 1, the results of the previous phase constitute the inputs for the interpretation activities ("what seems to be happening?"); analysis and confirmation of observations ("what's really happening?"); and identification and discussion of alternative futures and movements of actors ("what could happen?"). During the "prospection" phase, the interpretation of trends, signs of change and weak signals, is performed, applying, with flexibility, a set of methods and tools to prospect (Unido, 2005; 2005a; Slaughter, 2001; Porter,

2004). These methods and tools include the construction of scenarios, the Delphi technique, and strategic technology roadmapping. At that stage, the critical factors are: (i) mapping and mobilization of specialists and managers – both internal and external to the organization – around the topics of strategic interest; (ii) the definition of the objectives and scope of the prospection; and (iii) the choice of foresight methods and tools more suitable for each situation.

Figure 1: Strategic Technology Management supported by Technological Forecasting: Voros' Conceptual Model



In the third phase – "outputs", every effort must focus on obtaining and registering of consensus and commitments that occurred along the previous phase. The aim is to refine and consolidate the mapping of the issues involved, especially those of an institutional nature and critical elements for decision making. In this phase, the objective is to get answers to the following question: "what needs to be done?". During the activities of this phase, the process coordinator should seek to extend the collective understanding of the issues arising from previous phases, aiming to intensify the participation of managers and specialists in the activities. For this, workshops with representatives of the multiple stakeholders, for the development of strategic themes, should generate strategic dossiers and roadmap indicating alternatives for future actions. The main expected result is the transformation of accumulated knowledge in strategies and proposals suitable for decision makers, seeking to expand the perception on strategic options to be incorporated into plans, programs and projects. Finally, the fourth stage – "strategy formulation" brings together the elements that make it possible to answer the following questions: "what will be done?" and "How should it be done?"

The results generated in this last phase are formally introduced and validated by decision makers. The action alternatives, with different degrees of consensus and commitment, should be discussed and selected for proper prioritization. The expected results include the selection and definition of mechanisms and instruments for implementing the selected options, as well as the identification of topics that require further development and future analysis (emerging technologies, for example).

According to Cuhls and Grupp (2001), this is a process by which one can get a more complete understanding of the forces that shape the future and that should be taken into consideration in the decision-making process related to the strategic management of P&D. The company should include qualitative and

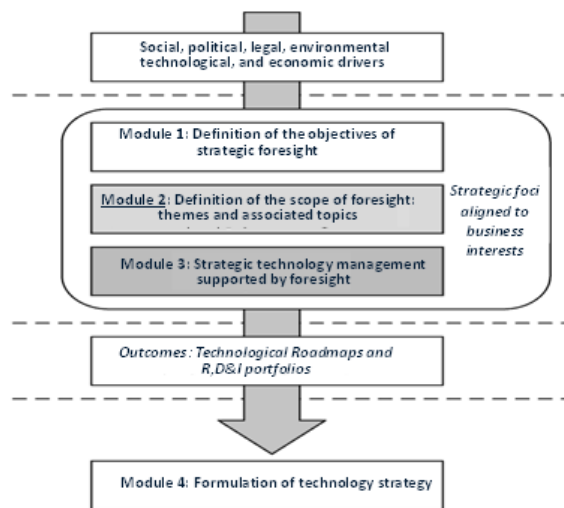
quantitative means to monitor signs and indicators of trends in science, technology and innovation and promote the generation of complete solutions in its areas of strategic interest.

A TOOLKIT FOR STRATEGIC TECHNOLOGY MANAGEMENT

The effectiveness of a strategic technological planning process is directly linked to a methodological design set from a delimitation of the questions to be answered, the proposed systematization of the process, the judicious choice of participants and experts involved and the assessment and management of the process that allows to perform adjustments and course corrections with a view to its improvement as a whole.

In this section, a flexible modular toolkit for supporting strategic technology management in companies, based on Voros' conceptual model, is proposed. The toolkit comprises operational modules that can be combined to address a range of R,D&I management challenges. Due to its flexibility and internal consistency, the authors argue that the dissemination of the proposed toolkit can contribute to significant organizational changes related to current corporate practices of strategic technology management. Figure 2 schematically represents the tool kit for supporting strategic technological planning process that was conceived in four modules: (i) Module 1 – Definition of the objectives of strategic foresight; (ii) Module 2 – Definition of the scope of strategic foresight; (iii) Module 3 – Strategic technology management supported by foresight: sustainable business perspective; and (iv) Module 4 – Formulation of technology strategy aligned to sustainable business perspective.

Figure 2: Modular Toolkit for Strategic Technology Management



Module 1 – Definition of the Objectives of Strategic Foresight

Technology foresight can be defined as a systematic means of mapping future scientific and technological developments capable to significantly influence an industry, the economy or society as a whole. This module aims to establish, by a participative way, the objectives of the technological forecasting in focus of the strategic technology planning.

Module 2 – Definition of the Scope of Strategic Foresight

Module 2 includes these activities: (i) analysis of the external environment, with identification and analysis of the drivers of the future development of the strategic themes in local and global contexts, including the definition of the state of the art and of emerging technologies in these two contexts; (ii) analysis of the internal environment, focusing skills, physical infrastructure and internal resources, as well as assessing the potential of the company to work in collaborative network (open innovation model); (iii) matrix strategic analysis of

opportunities and threats *versus* strengths and weaknesses, aiming at establishing the foci of the technological strategic planning process; (iv) definition of themes and associated technological topics, including a brief description; (v) formation of Technological Intelligence Networks (TIN) for strategic theme; and (vi) development of Technological Intelligence Reports (TIR) for each strategic theme. Essential to the success of this module is the institutionalization of TIN (by strategic theme), under the coordination of a technical leader on the issue. This module provides for the reporting of TIR, considered fundamental inputs to Module 3 – 'Technological Foresight'.

Module 3 – Strategic Technology Management supported by Foresight: Sustainable Business Perspective

Module 3 constitutes the heart of the technological strategic planning methodology for the company in its strategic foci (business perspective). For its execution, several technological foresight techniques can be combined, as the Delphi technique and technological roadmapping and evaluation of the environmental and economic impacts of the technologies that will be developed or adapted.

Fundamental to the success of this Module is the definition of a set of economic, social and environmental criteria for the selection of associated topics, which will be object of strategic roadmap for the focal themes (Module 4). From this perspective, three complementary activities to the construction of the two technological maps (local and global) were introduced in the methodology. They are:

- the qualitative assessment of economic, social and environmental impacts of technological topics associated with each theme, with prior definition of economic, social and environmental criteria to be adopted for the evaluation;
- elaboration and graphical representation of RD&I strategic portfolios of selected topics, considering the potential, resources and competences of the company, including collaborative networks management;
- systemic consolidation of the RD&I strategic portfolio in the strategic focus (basis for the formulation of the company's technology strategy in this area).

Module 4 – Formulation of Technology Strategy aligned to Sustainable Business Perspective

The instrument of choice for the formulation of the strategy is the strategic technology roadmapping (Millett, 2006). The conceptual approach to the construction of the company's strategic roadmap for the strategic foci foresees the construction of 'vision' of topics of interest and the definition of strategic guidelines for the strengthening of the company's strategic positioning on these themes, aiming at achieving the 'vision' of each theme. Gaps between the 'current situation' and 'vision' for the themes are identified, so that strategic initiatives and actions are proposed to effectively fill such hiatus (Almeida, 2006).

FINAL REMARKS

Based on the assumption that new technologies may support more sustainable business, this paper discussed the importance of sustainable growth thinking in business and strategic foresight as a backdrop to purpose a flexible toolkit for supporting strategic technology management in companies. Here, we reinforce the importance of strategic foresight for an effective strategic technology management, because alternative futures can be considered, and participants with different background should be actively involved during the execution of four modules of the purposed toolkit.

The toolkit comprised four operational modules that can be combined to address a range of R,D&I management challenges. Due to its flexibility and internal consistency, the authors conclude that the dissemination of the proposed toolkit can contribute to significant organizational changes related to current corporate practices of strategic technology management.

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BOARD PERFORMANCE IN STRATEGIC MONITORING: EVIDENCE FROM PORTUGAL

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ABSTRACT

Despite the growing interest in the performance of boards of directors, most studies in the field concentrate on board structure instead of the ways they actually work. Few studies have shed light on how the work practices of boards may influence their performance on strategic tasks. In particular, no studies have analysed the Portuguese context in this regard. This paper analyses the influence of non-structural factors that may affect the effectiveness of Portuguese boards in the task of strategic monitoring. To do so, a replication study was conducted with basis on the model developed by Amaral-Baptista (2013) in the context of Brazilian firms. To test the model in the Portuguese empirical setting, a survey with 105 non-executive directors of Portuguese companies was conducted in 2014. The results showed that 67% of the variance observed in Board Effectiveness in Strategic Monitoring was explained by the antecedents Chairperson Leadership, Attention to Strategic Monitoring and Work Dynamics. Although Access to Information had a significant and positive influence on Business Knowledge, the effects of these factors on Board Effectiveness in Strategic Monitoring were not confirmed. These findings were generally consistent with the results of Amaral-Baptista (2013). The study is concluded with implications for management practice and future studies.

Keywords: corporate governance, board of directors, strategy implementation, strategic monitoring, Portugal.

INTRODUCTION

The ways to good corporate governance are an emerging yet under-researched topic, since most of the studies conducted in the area are based on incomplete or inadequate models and the question of why boards fail to behave accountably has not been fully answered (Huse, 2009). A growing consensus about the importance of boards of directors (BoD) in monitoring the course of strategy implementation (SI) is rising among academics and practitioners (Schmidt & Brauer, 2006). As BoD are generally distant from the SI activities, they must display sound work processes and dynamics to effectively monitor the achievement of corporate strategic objectives (Amaral-Baptista, Macedo-Soares, & Melo, 2011). Many authors emphasised the importance of the mediating role of behavioural factors on company level outcomes (Daily, Dalton, Albert, & Cannella, 2003;

Gabrielsson & Huse, 2004; Huse, 2005) as several studies on the direct relationships between board structure and corporate financial performance were inconclusive.

In order to systematically analyze the antecedents of board performance in monitoring strategy implementation, Amaral-Baptista (2013) proposed and tested a conceptual framework with survey data on Brazilian boards. In this study, the model was replicated and tested in the empirical context of Portuguese boards in order to analyse whether, and in which ways, non-structural factors affect their performance in the task of monitoring strategic implementation.

In doing so, this study aims to contribute to the ongoing debate on board performance in several ways. It intends to generate a deeper discussion about the actual roles of the non-executive directors within a boardroom by analysing the practices followed in monitoring SI. It also seeks to provide additional validity to the model of Amaral-Baptista (2013) in explaining the non-structural antecedents of board performance in different contexts. Finally, it aims to contribute to the development of corporate governance practices in Portugal by suggesting recommendations for the improvement of the boards' monitoring capabilities.

THEORETICAL BACKGROUND

Board effectiveness

The logic of measuring a board's effectiveness is to bridge the gap between what boards should do and what they do in reality (Forbes & Milliken, 1999; Huse, Minichilli, & Schoning, 2005; Huse, 2005; Mace, 1972; Schmidt & Brauer, 2006). A board's effectiveness may be defined as its ability to perform its tasks (Forbes & Milliken, 1999; Johnson, Daily, & Ellstrand, 1996; Zahra & Pearce, 1989). Zahra & Pearce (1989) propose three board task categories: service, control and strategic tasks. The service task, which derives from the resource dependence theory (Pfeffer & Salancik, 1978), can be associated to the management support activities of the board. The control task, grounded on agency theory, sets emphasis on the decision control and monitoring activities of the board in order to reduce managerial opportunism (Huse, 2005). The strategic task relates to the involvement of boards in strategy formulation and implementation (Zahra & Pearce, 1989). Some aspects of a board's involvement in strategy are related to control, such as gatekeeping and control of strategic decisions (Fama & Jensen, 1983).

While Pettigrew (2009) refers to the BoD as an instrument of both control and strategic leadership and calls for a discussion of the purpose and improvement of actual board effectiveness, Roberts et al. (2005) stress on the point that understanding what goes on in boards is crucial to increase the confidence of distant investors and other stakeholders. In this logic, considering that CG plays an important role to coerce the excess of short-termism and risk-taking, research is pointing to the importance of board behaviour on the quality of decision-making, and claiming the need for studies that are able to observe boards in action.

The importance of the strategic involvement of boards to the contribution of long-term value creation (Andrews, 1981) and the suggestion that non-executive directors should participate in the decision-making process (Demb & Neubauer, 1992), is in line with the definition of boards' effectiveness of Roberts et al. (2005:S6) where "the key to board effectiveness lies in the degree to which non-executives acting individually and collectively are able to create accountability within the board in relation to both strategy and performance". Roberts et al. (2005:S6) go further by explaining that accountability can be achieved by "a wide variety of behaviours – challenging, questioning, probing, discussing, testing, informing, debating, exploring, encouraging – that are at the very heart of how non-executives seek to be effective". The contribution of the behavioural dimension to effectiveness of boards is also highlighted by Forbes & Milliken (1999:495), when they state that effective boards are those which are able to perform distinctive service and control activities successfully and yet continue to work as a team. Thus, a wider range of theoretical perspectives are required to understand the antecedents of the effectiveness of boards (Daily et al., 2003; Gabrielsson & Huse, 2004).

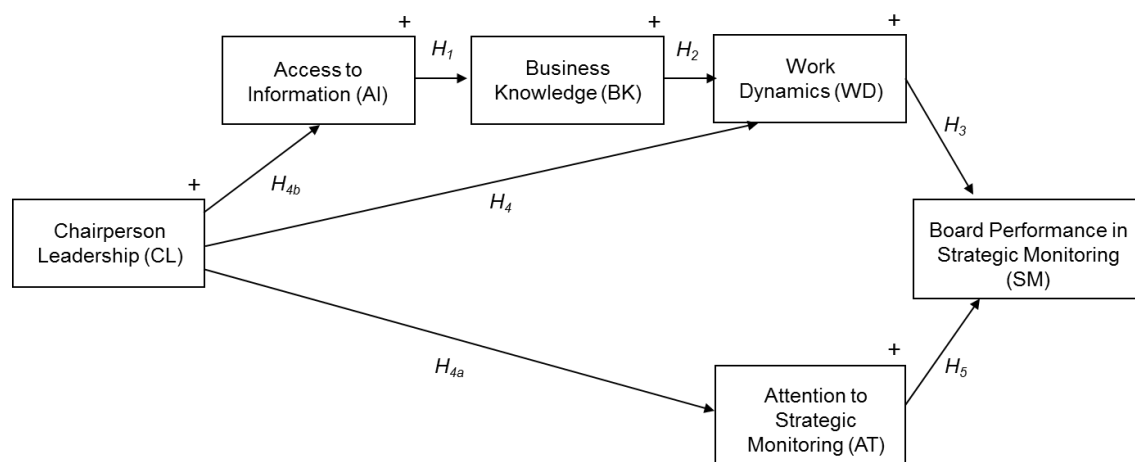
Some recent studies (Gabrielsson, Huse, & Minichilli, 2007; Huse, Hoskisson, Zattoni, & Viganò, 2011) used the Team Production Theory (TPT) (Blair & Stout, 1999) as a theoretical explanation of a board's

effectiveness. The TPT underlies a function model where boards simultaneously coordinate and control team members, going beyond the usual assumption of conceiving boards uniquely as monitoring agents for shareholders. Kaufman & Englander (2005) stressed the importance of achieving a constructive team production culture in the boardroom, conducive to the involvement and contribution of each team member. Hence, effective boards should be endowed with the necessary know-how, skills and information brought by each board member. It is, thus, reasonable to assert that team production quality within a boardroom is influenced by behavioural perspectives and work processes.

Antecedents of board effectiveness in monitoring strategy implementation: Conceptual model and hypotheses

The most influential general board performance models found in literature (Forbes & Milliken, 1999; Huse, 2005; Zahra & Pearce, 1989) focus on non-structural antecedents of a board's effectiveness. However, although they suggest the existence of mediated relations among the non-structural factors of effectiveness, they are not task-specific. Amaral-Baptista (2013) developed and tested a board effectiveness model specific to the SI monitoring task. It draws on the general models mentioned above and on the team production perspective. A preliminary set of qualitative data from in-depth interviews with non-executive directors was analysed and used to refine the conceptual model, which was subsequently tested with a survey study with 217 board directors of Brazilian companies in 2012. The empirical results showed that the five constructs that influence a Board's Performance in Strategic Monitoring are Access to Information, Business Knowledge, Work Dynamics, Chairperson Leadership and Attention to Strategic Monitoring. The relationships among the constructs are depicted in Figure I and their operational definition is presented in Table I.

Figure I – Model of relationships between non-structural factors of Board Performance in Strategic Monitoring



Source: Amaral-Baptista (2013)

Table I – Operational definition of constructs

Construct	Abbreviation	Operational Definition
Access to Information	AI	The extent to which the board has access to the information required to monitor strategy implementation.
Business Knowledge	BK	The extent to which the business-specific knowledge required to monitor strategy implementation is collectively present at the board.
Work Dynamics	WD	The extent to which the board has interactions and work practices that are conducive to team production and decision making.
Chairperson Leadership	CL	The extent to which the chairperson has attributes that favour the board's team production and decision making.
Attention to Strategic Monitoring	AT	The extent to which the board dedicates attention to the task of monitoring strategy implementation.

Board Performance in Strategic Monitoring	SM	The extent to which boards can perform their SI management tasks effectively.
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Source: Amaral-Baptista (2013)

In order to replicate the model in the Portuguese context, the development of its hypotheses is summarized next.

Board Performance in Strategic Monitoring (SM)

Board Performance in Strategic Monitoring is the explained construct interest of this study. Literature suggests that in order to manage SI, a board is expected to systematically control the key strategic decisions (Sellevoll, Huse, & Hansen, 2007). To do so, a board's involvement in this task should be constant rather than sporadic (Zahra, 1990). Boards are expected to assume a questioning posture regarding the strategy that is being followed and should be able to identify when deviations from the intended strategy are occurring (Brauer & Schmidt, 2008). In line with the indicators of strategic consistency of Brauer & Schmidt (2008), it is suggested that the quality of monitoring SI can be measured by: (i) an early identification of SI deviations; (ii) the ability to veto emergent strategic proposals that lack consistency and deviate the company from the intended strategy; and (iii) the ability to promote the necessary decisions to return to the intended strategy (Amaral-Baptista, 2013).

Access to Information (AI)

The quality of the access to relevant information inside and outside the boardroom, necessary for monitoring strategy implementation, is important to promote effective participation of non-executive directors in strategic issues and to enhance specific and strategic knowledge (Nadler, 2004; Siciliano, 2002; Zahra, 1990). Boards should proactively define their needs in terms of information and match it to the strategic objectives of the company, considering additional dimensions of information to complement the financial dimension (Drew & Kaye, 2007). The capabilities and learning perspectives suggest that business knowledge can be influenced by access to information. As non-executive directors are not present on a daily basis in the company, one of the few interaction instances they have is in the board meetings. Consequently, accessing effective channels of information inside and outside the boardroom can contribute to the deepening of their knowledge on the performance and strategic initiatives of the company. Following this logic, it is hypothesized that:

H1: Access to Information is positively related to Business Knowledge.

Business Knowledge (BK)

In line with the general model of Zahra & Pearce (1989), boards with greater levels of knowledge can be more successful and effective in performing their tasks. Forbes & Milliken (1999) add the fact that in order to perform their tasks, non-executive directors should have expertise and competences in different areas. Also, the explicit and tacit knowledge was highlighted by some authors as a condition for non-executive directors to take consistent strategic decisions (Drew & Kaye, 2007; Huse, 2005). According to Brauer & Schmidt (2008), boards with high levels of knowledge are better prepared to offer a complementary vision to CEO when discussing deviations in strategic implementation. Those who do not understand the strategy of the company have no conditions to accurately question the management in order to ensure its correct execution. Hence, their contribution to work dynamics is limited. Based on these assumptions, the following hypothesis is formulated:

H2: Business Knowledge is positively related to Work Dynamics.

Work Dynamics (WD)

A direct and positive relationship between board's work dynamics and its task performance was suggested by Zahra & Pearce (1989), Forbes & Milliken (1999) and Huse (2005). As the knowledge available within a boardroom is not necessarily activated and used (Forbes & Milliken, 1999) it is necessary that BoD cultivate team production orientation, improve decision-making and invest in the quality of analysis procedures (Huse, 2007). In order to prevent deviations in SI, BoD should be able to contribute to an atmosphere of creative teamwork characterized by openness, commitment, cohesiveness and cognitive conflict (Forbes & Milliken, 1999), so that decision-making about complex strategic issues is not taken based on superficial analysis. In line

with this logic, boards should engage on comprehensive discussions in order to be able to get a considerable understanding of the implications of alternative courses of action (Sellevoll et al., 2007). Thus, contrasting points of view among members of the boards, including differences of opinion, perspectives or ideas favours the quality of work dynamics by deepening and enriching the discussion about strategic concerns (Forbes & Milliken, 1999). According to the TPT, it is proposed that there is a direct and positive relationship between Work Dynamics and Board Performance in Strategic Monitoring:

H3: Work Dynamics is positively related to Board Performance in Strategic Monitoring.

Chairperson Leadership (CL)

TPT assumptions assert that behavioural characteristics of the chairperson increase their potential influence when interacting with BoD. According to Gabrielsson, Huse, & Minichilli (2007), it is expected that the chairperson influence boards' performance through the coordination of work processes and the incrementation of collaborative attributes among non-executive directors. The chairperson should be able to optimize the interaction among BoD members as they can face some difficulties in interacting and cooperating due to the occasional nature of board meetings (Forbes & Milliken, 1999). By stimulating work dynamics and team production culture within the boardroom, it is expected that the chairperson ask for the directors' input, engaging them at every step of the strategic process. In line with this logic, it is hypothesized that:

H4: Chairperson Leadership is positively related to Work Dynamics.

Another important attribute of the chairperson is their ability to organize and prioritize BoD's work so that monitoring is effective. Assuming that different subjects are susceptible to require more time for discussion, the chairperson should be able to direct the boards' agenda to highly important strategic questions to the detriment of others and act as a facilitator of relevant information (Gabrielsson et al., 2007; Roberts et al., 2005). Thus, the following hypothesis is formulated:

H4a: Chairperson Leadership is positively related to Attention to Strategic Monitoring.

It is also expected that chairperson are able to motivate non-executive directors to access useful and appropriate information where constructive questioning, regarding the information provided by the executive management or other non-executive directors, is freely allowed (Roberts et al., 2005). Hence, it is hypothesized that:

H4b: Chairperson Leadership is positively related to Access to Information.

Attention to Strategic Monitoring (AT)

The board's involvement in the task of monitoring strategy implementation can be conditioned by internal and external events and the level of attention they allocate to it can be affected. Tuggle, Sirmon, Reutzel, & Bierman (2010) suggest that board members prioritize their attention to some questions to the detriment of others. Huse & Rindova (2001) reinforce this idea advocating that board's involvement in this specific task is not constant as many other tasks and roles struggle for their attention. Hence, attention to monitoring SI can influence board effectiveness in monitoring SI. Potential indicators of the degree of attention dedicated to monitoring strategy implementation are: (i) the time BoD dedicate to monitoring SI; (ii) the time non-executive directors need to prepare their interventions, through access of relevant information, to effectively contribute to the task of monitoring SI; (iii) the inclusion of SI questions in a board's agenda and the regularity within which they evaluate its direction (Sellevoll et al., 2007). Therefore, a direct and positive relationship between Attention to Strategic Monitoring and Board Performance in Strategic Monitoring is hypothesized:

H5: Attention to Strategic Monitoring is positively related to board performance in Strategic Monitoring.

THE CONTEXT OF THE PORTUGUESE BOARDS OF DIRECTORS

According to Esperança, Sousa, Soares, & Pereira (2011), there is positive development regarding the governance practices adopted by Portuguese companies. However, there are weaknesses that must be overcome, such as the lack of independence of boards. Despite its small size, Portugal has a developed legal and regulatory

structure (OECD, 2011). The main legal framework for listed companies in Portugal is the Corporate Law with regard to corporate governance matters and the Securities Law when transparency matters are concerned. The Portuguese Securities Commission (CMVM) and the Portuguese Corporate Governance Institute (IPCG) issued codes of best corporate governance practices.

Three types of corporate governance structures coexist in Portugal: (i) the “Latin Model”, characterized by a board of directors and a separate audit board composed by members who do not sit with the board during board meetings, except when matters related to the Audit Board’s functions must be discussed; (ii) the “Anglo-Saxon Model”, comprised of a conventional single tier board of directors, where an Audit Committee is mandatory. Under this structure, the Audit Committee should be formed only by non-executive directors and independence must be assured by a majority. Both models follow a monist structure (which is the most predominant in Portugal), where BoD can be composed by executive and non-executive members (union between management and monitoring functions); and (iii) the “Germanic Model”, which is characterized by a conventional two tier structure, formed by an executive board and a supervisory board, where all members are non-executive and the majority of them must be independent (separation of management and monitoring functions). Dualist structures tend to be adopted in companies with dispersed ownership, i.e., where the power to vote is more distributed and where shareholders have less capacity of monitoring and influencing management.

The ownership structure of Portuguese firms is predominantly concentrated and private, being dominated by block shareholders. According to the OECD report (2011:81): “share ownership in Portugal is highly concentrated, and in a large number of listed companies there is at least one dominant shareholder. In most cases this is a family shareholder, but can also be a foreign/partner or in a limited number of cases the Government is a qualified shareholder. In some cases there is more than one dominant shareholder, with for instance, both the state and a private shareholder, or two family groups, having substantial influence on the one company”. The OECD report (2014:11) adds that “in 25 out of 45 listed companies, a single shareholder owns a majority stake”. The largest companies tend to present a larger number of BoD’s members. On average, Portuguese boards have ten members (four executive members, three non-executive and non-independent members and three non-executive and independent members (Esperança et al., 2011). The separation of the roles of chairperson and CEO is predominant, as recommended by the OECD code of best practice. CEO duality is frequent in smaller firms.

The annual report of Heidrick & Struggles (2009) identified the following areas that need improvement within the Portuguese corporate governance framework: the lack of clear enough separation between the roles of CEO and chairman of the board, the shortage of independent members and the insufficient attention dedicated to internal controls and risk management as well as corporate responsibility in general.

RESEARCH METHOD

The research method was designed to replicate the study of Amaral-Baptista (2013) in the Portuguese empirical context. Replication and extension research can play, according to Hubbard & Vetter (1996), a key role in ensuring the reliability of empirical findings as well as evaluating their robustness. Similarly, Singh, Ang, & Leong (2003), assert that in order to ensure the consistency and validity of the research, replication is essential, particularly, for rigorous theory development in social sciences. According to Morrison, Matuszek, & Self (2010), replication studies are useful (i) to confirm findings and to establish repeatability; and (ii) to strengthen the reliability and validity of findings.

According to Stiles (2001), it is crucial to collect the perceptions of board directors themselves in order to understand their role and influence in relation to the real functioning of boardrooms, especially when the strategic process is at stake. The sample of Portuguese board directors was delimited by two constraints: (i) respondents should perform or have performed the role of non-executive board directors, ensuring that their experience enabled them to answer the survey questions (substitute non-executive directors or fiscal board members were excluded) (Amaral-Baptista, 2013); and (ii) companies should be based in Portugal, in order to minimize the possible differences in CG systems across the countries (Shleifer & Vishny, 1997). Since it was not possible to reach the entire population of non-executive directors of companies based in Portugal, a non-probabilistic, convenience sample was used, a fact that limits the generalization of the results. The initial sample

was composed of 117 observations, of which 11 were excluded (seven related to companies based outside Portugal and five had respondents who did not have experience as non-executive directors). Thus, the final sample consisted of 105 valid observations.

Data were collected through an anonymous survey sent in the first semester of 2014 to board directors of companies based in Portugal. Despite the steps that were taken to ensure respondents that their responses were strictly anonymous and the data would be only used in an aggregate form, the risk of receiving positively biased responses cannot be ignored. The questionnaire consisted of 42 items divided into the six constructs of interest for this study, plus 20 items to measure demographic variables. Measurement scales were the same used in Amaral-Baptista (2013), where they were developed and pre-tested. The observed variables measured through a Likert scale, varying from 1 (strongly disagree) to 7 (strongly agree).

Motivating board directors to take 10 minutes of their time to answer the questionnaire proved to be a challenge. To overcome this, a multimethod strategy was used, consisting of an introductory, personalized e-mail explaining the motivation of the research, follow-up e-mails, use of social networks (LinkedIn), research promotion at the Portuguese Corporate Governance Association's website and follow-up phone calls to respondents and personal assistants. Overall, the data collection effort took twelve weeks. The dataset was treated for missing and extreme observations (Hair, Black, Babin, & Anderson, 2010). Multivariate and univariate normality testing procedures were conducted, indicating that the distribution of data was non-normal. As observed by Hair et al. (2010), the impact of the non-normality of data can have influence in sample sizes under 200 cases using maximum likelihood estimation methods. Thus, results should be interpreted with limitations. Data were analysed by exploratory factor analysis, confirmatory factor analysis and structural equations modelling procedures.

EMPIRICAL FINDINGS

Sample characterization

Tables II and III depict the descriptive statistics that characterize the final sample of 105 observations.

Table II – Sample characterization – Companies

Characteristic	Frequency	Percent	min	max	mean	Std. deviation
Main sector of operations						
Industry	21	20.0%				
Commerce	8	7.6%				
Bank/Insurance	14	13.3%				
Services	50	47.6%				
Other	12	11.4%				
Is it considered a high technology company?						
No	65	61.9%				
Yes	40	38.1%				
Years since foundation						
0-10	46	43.8%				
10-20	24	22.9%				
20-30	11	10.5%				
30-40	3	2.9%				
> 40	21	20.0%				
Annual revenues (EUR million/year)						
0-30	49	46.7%				
30-300	30	28.6%				
300-3.000	12	11.4%				
> 3.000	14	13.3 %				
Number of employees						
0-50	40	38.1%				

51-250	31	29.5%
251-500	10	9.5%
501-1000	7	6.7%
> 1000	17	16.2%
Level of diversification of operations		
Low	61	58.1%
Medium	32	30.5%
High	12	11.4%
Level of internationalization of operations		
Low	42	40.0%
Medium	23	21.9%
High	40	38.1%
Ownership (control of voting capital)		
Family	28	26.7%
Government	6	5.7%
Investment firm/fund	59	56.2%
Diluted control	12	11.4%
Is the company listed in any stock exchange?		
No	91	86.7%
Yes	14	13.3%
Participation of private equity/investment funds in voting capital?		
No	66	62.9%
Yes	39	37.1%
Percentage voting capital held by the largest shareholder		
		0.0% 100.0% 54.5% 26.7%

Note: N=105

Table III – Sample characterization – Boards of Directors

Characteristics	Frequency	Percent	Min.	Max.	Mean	Std. Deviation
CEO Duality						
No	58	55.2%				
Yes	47	44.8%				
Existence of a Strategy Committee						
No	75	71.4%				
Yes	30	28.6%				
Board size			2	21	6.55	3.72
Non-executive directors			1	12	3.73	2.37
Women members			0	6	.91	1.16
Number of Board Meetings per year			1	26	9.00	4.60
Board experience in years			1	20	7.92	4.83
Board experience in number of boards			1	32	7.27	7.66

Note: N=105

Regarding companies, Table II shows that the main sectors of operations represented in the sample were Services (47.6%) and Industry (20%). The majority of the companies are not considered of high technology (61.9%). Concerning the age of the company, almost half of them (43.8%) were founded less than ten years ago while only 20% were founded more than 40 years ago, emphasizing the weight of the new companies. In relation to annual revenues, the majority of the companies represented in the sample (46.7%) presented an annual revenue of less than 30 million euros/year whereas 13.3% presented an annual revenue higher than 3'000 million euros/year, highlighting the predominance of small companies. 38.1% of the companies have less than 50

employees while only 16.2% of the companies have more than 1'000 employees. The majority of the companies (58.1%) have a low level of diversification of operations whereas, with respect to internationalization, the companies show two opposing positions: 40% of the companies have a low level of internationalization and 38.1% have a high level of internationalization. In relation to a company's voting capital, it was observed that there is a predominance of investment company control (56.2%) followed by family control (26.7%). With respect to ownership concentration, measured by the percent of the company's voting capital held by its largest shareholder, 54.5% indicates an elevated concentration. The majority of the companies represented in the sample (86.7%) are not listed in any stock exchange and approximately 37.1% of the companies have participation of private equity or investment funds in their voting capital.

Concerning BoDs, Table III demonstrates that the functions of Chairman and CEO occupied by the same person have a high incidence (44.8%) and the majority of the BoD (71.4%) do not have a Strategy Committee. The BoD represented in the sample have on average 6.55 members, from which 3.73 are non-executive members and less than 1 (0.91) are women. The frequency of the meetings is inferior to one per month (9 meetings held annually). The respondents have an overall experience of 7.92 years serving as non-executive board directors and have participated, on average, in 7.27 boards.

Exploratory and confirmatory factor analysis

The structure that emerged from the exploratory factor analysis identified the same six latent constructs and the same 22 variables identified in Amaral-Baptista (2013). This provided evidence of stability of the original factor structure. The theoretical measurement model was then tested for validity through confirmatory factor analysis (Table IV). The chi-square of 406.510 is significant at 1% ($p = 0.000$), suggesting good model fit. In addition, the chi-square index divided by the number of degrees of freedom is 2.095, which is also acceptable as it lies in the interval that ranges between 2 and 5, thus proposing also an acceptable fit (Hair et al., 2010). The confidence interval of the root mean square error of approximation [0.089 – 0.117] is somewhat higher than the maximum reference value of 0.08 for a model of 22 variables and 105 observations. The comparative fit index (CFI= 0.875) is lower than the reference value of 0.95, although it is close to 0.9 (the minimum value associated with good fit) and to 1 (the maximum value obtainable). Altogether, the goodness-of-fit indicators analysed suggest that the measurement model provided a reasonable, but not excellent, fit. While the main indicators were above the minimum theoretical threshold for goodness-of-fit, i.e., chi-square indexes, the results for the additional indexes used suggest that a misspecification problem may not be discarded. Therefore, results study must be interpreted with limitations.

Table IV – Goodness-of-fit results of the measurement model

Chi-square	406.510
Degrees of freedom	194
Chi-square/degrees of freedom	2.095
<i>P</i>	0
Absolute Fit Indices	
Root Mean Square Error of Approximation (RMSEA)	0.103
Confidence interval	0.089 0.117
Incremental Fit Indices	
Comparative Fit Index (CFI)	0.875
Parsimony Fit Indices	
Akaike's Information Criterion (AIC)	524.510

Structural equations modeling (SEM)

Figure II depicts the relationships between the latent constructs (represented in circles) and the observed variables (represented in rectangles). As displayed in Table V, the goodness-of-fit results of the structural model was higher than those of the measurement model. The chi-square statistics of the structural model (=429.134) and respective degrees of freedom (=202) presented higher results and were significant at 1% ($p = 0.000$), suggesting a better model fit. The absolute fit index of the structural model (root mean square error of approximation – RMSEA=0.104) is also higher than the measurement model's. Despite the incremental fit index (comparative fit index – CFI=0.867) presented lower results, it is comparable to the result for measurement model. The increase of the value of the parsimony fit index (Akaike's information criterion – AIC=531.134) also indicates a better fit of the structural model compared to the measurement model. Overall, the goodness-of-fit of the structural model can be considered reasonable, similarly to what was observed in the measurement model. Thus, the results must be interpreted with limitations

Figure II – Structural Model

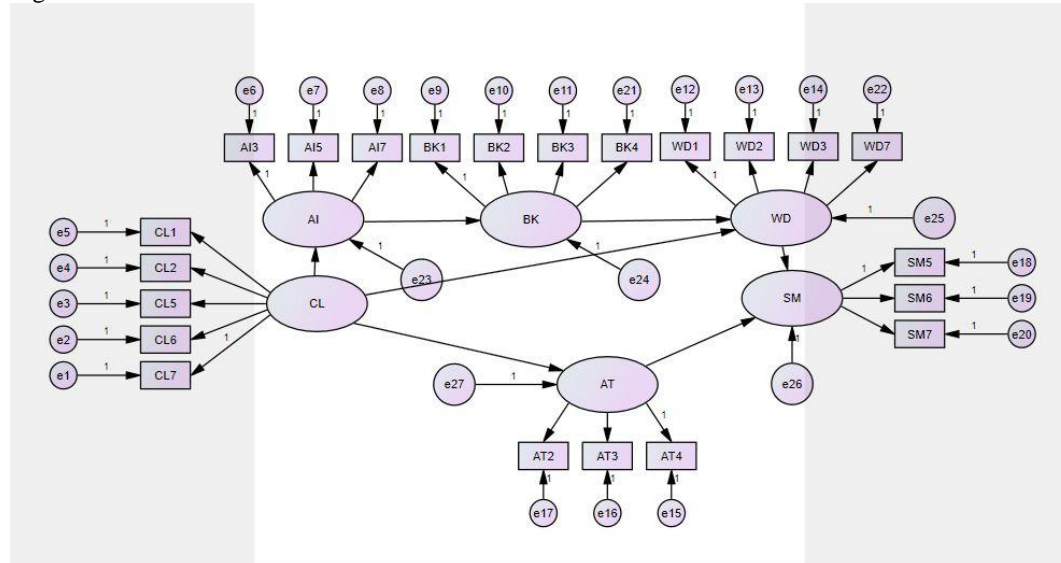


Table V – Comparison of the quality results of the goodness-of-fit between the measurement model and the structural model

	Measurement Model	Structural Model
Chi-square	406.510	429.134
Degrees of freedom	194	202
Chi-square/degrees of freedom	2.095	2.124
<i>P</i>	0	0
Absolute Fit Indices		
Root Mean Square Error of Approximation (RMSEA)	0.103	0.104
Confidence interval	0.089 0.117	0.090 0.118
Incremental Fit Indices		
Comparative Fit Index (CFI)	0.875	0.867
Parsimony Fit Indices		
Akaike's Information Criterion (AIC)	524.510	531.134

Tests of hypothesized relationships

The same hypothesis developed by Amaral-Baptista (2013) were tested in the Portuguese context (Table VI). The SEM results are graphically illustrated in Figure III and are depicted in Table VII.

Table VI – Model of hypothesis of relationships between non-structural factors of Board Performance in Strategic Monitoring

H_1 : AI + \rightarrow BK	Access to Information is positively related to Business Knowledge.
H_2 : BK + \rightarrow WD	Business Knowledge is positively related to Work Dynamics.
H_4 : CL + \rightarrow WD	Chairperson Leadership is positively related to Work Dynamics.
H_{4a} : CL + \rightarrow AT	Chairperson Leadership is positively related to Attention to Strategic Monitoring.
H_{4b} : CL + \rightarrow AI	Chairperson Leadership is positively related to Access to Information.
H_3 : WD + \rightarrow SM	Work dynamics is positively related to board performance in Strategic Monitoring.
H_5 : AT + \rightarrow SM	Attention to Strategic Monitoring is positively related to board performance in Strategic Monitoring.

Source: Amaral-Baptista (2013)

Figure III – Structural standardized parameters of the conceptual model of Board Performance in Strategic Monitoring

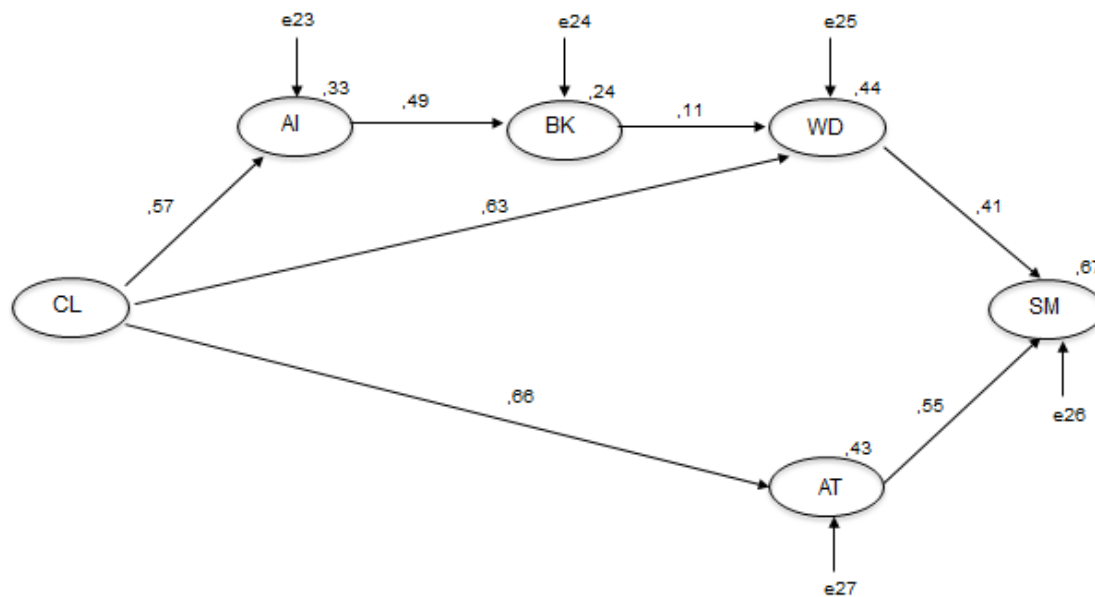


Table VII – Significance of Parameters of the Conceptual Model of Board Performance in Strategic Monitoring

Structural Relationship	Non-estimated standardized parameters	Standard error	<i>t-value</i>	Significance	Estimated standardized parameters
H_1 : AI + \rightarrow BK	0.44	0.114	3.866	***	0.49

H_2 : BK + \rightarrow WD	0.11	0.095	1.197	0.231	0.11
H_4 : CL + \rightarrow WD	0.41	0.078	5.276	***	0.63
H_{4a} : CL + \rightarrow AT	0.68	0.098	6.972	***	0.66
H_{4b} : CL + \rightarrow AI	0.42	0.088	4.762	***	0.57
H_3 : WD + \rightarrow SM	0.51	0.132	3.877	***	0.41
H_5 : AT + \rightarrow SM	0.43	0.080	5.358	***	0.55

Note: *** Significance at 0.1%

DISCUSSION

Through the analysis of the estimated results of the conceptual model, it was possible to verify that with the exception of the lack of support of the hypothesized relationship among the constructs of Business Knowledge and Work Dynamics, the model confirmed the existence of positive relationships among the other constructs (Table VIII) and explained 67% of the variance observed in Board Effectiveness in Strategic Monitoring. It is, therefore, possible to confirm the influence of non-structural factors in board's effectiveness in monitoring SI, in the Portuguese context.

Table VIII – Results of the hypothesis tests

Research Hypothesis	Hypothesis Supported
H_1 : Access to Information is positively related to Business Knowledge.	YES
H_2 : Business Knowledge is positively related to Work Dynamics.	NO
H_4 : Chairperson Leadership is positively related to Work Dynamics.	YES
H_{4a} : Chairperson Leadership is positively related to Attention to Strategic Monitoring.	YES
H_{4b} : Chairperson Leadership is positively related to Access to Information	YES
H_3 : Work dynamics is positively related to board performance in Strategic Monitoring.	YES
H_5 : Attention to Strategic Monitoring is positively related to board performance in Strategic Monitoring.	YES

Influence of Access to Information

The results illustrated that Access to Information has a direct and positive effect on Business Knowledge (H_1). Thus, as suggested by the extant literature, it is possible to infer that the implementation of structured processes of access to information increases the levels of business knowledge that non-executive board directors possess. However, nothing can be inferred about the indirect effect of Access to Information on Board Performance, as the expected path between Business Knowledge and Board Performance in Strategic Monitoring (H_2) was not confirmed empirically. One possible explanation is that although access to information improves the level of knowledge in the boards, it may not be enough to trigger more active behaviour of non-executive directors in the discussion of business problems.

Influence of Business Knowledge

The influence of Business Knowledge was neither confirmed as a direct and positive influence in Work Dynamics, nor as an indirect influence in board effectiveness in monitoring SI (H2). This result is not consistent with the prediction that boards with higher levels of knowledge can be more effective in performing their strategic monitoring tasks. Hence, the lack of confirmation of this hypothesis suggests that the mere presence of knowledge in BoD does not mean that it will be effectively used for the benefit of the board's work dynamics (Forbes & Milliken, 1999). According to Huse (2005), the competences of non-executive board directors can be related to the internal culture of BoD's decision-making. In line with this logic, this internal culture, along with the level of impact of the interactions between board members, is influenced by the chairperson, who, according to Roberts, McNulty, & Stiles (2005), plays a pivotal role. In this regard, if the chairperson promotes "minimalist board cultures" (Roberts, McNulty, & Stiles, 2005:59), non-executive directors are severely limited regarding their involvement in the affairs of the company, where it is not possible to apply their knowledge to the benefit of the company. Hence, this can be probably the context that some respondents face every time they meet in the boardroom. However, this relationship must be the object of further study.

Influence of Work Dynamics

The results showed that there is a direct and positive relationship between Work Dynamics and Board Performance in Strategic Monitoring (H3). Thus, the way boards effectively work in team and interact with team management influence their performance in monitoring SI. In fact, it can be inferred that a team production orientation in boards, where a positive questioning attitude is freely allowed, where cognitive conflict is possible and where openness regarding opinions and the company's issues are discussed with the required depth, elevates the quality of participation of non-executive directors in the process of monitoring SI.

Influence of Chairperson Leadership

The results confirmed Chairperson Leadership as an important antecedent in board effectiveness in monitoring SI. In line with the hypothesis formulated, the influence of this antecedent is multiple: it is positive, direct and significant regarding Access to Information (H4b), Work Dynamics (H4) and Attention to Strategic Monitoring (H4a). Concerning Access to Information ($\beta=0.57$), the positive effect of Chairperson Leadership supports the notion that it is expected that the chairperson enables the flow of relevant information so that boards can intervene in the strategic process of the company. However, the indirect chairperson's influence on the performance of boards in strategic monitoring was not confirmed. The performance of Chairperson Leadership as a catalyst of boards' contributions is confirmed by their effect in Work Dynamics ($\beta=0.63$).

The results indicated that more effective chairpersons: (i) coordinate board's work and encourage the interactions between board members; (ii) stimulate the effective use of knowledge and a questioning posture within the boardroom; (iii) stimulate the team production in boards, based on TPT. From this perspective, if the chairperson stimulates the board's questioning attitude, ensures the contribution of all non-executive directors and promotes conclusive board discussions, it is possible to infer that these internal dynamics will contribute to an effective strategic monitoring.

As illustrated in Figure 4, Chairperson Leadership has a major impact in Attention to Monitoring SI ($\beta=0.66$), confirming that the chairperson has an important role in: (i) directing and prioritizing the work of BoD; and (ii) ensure the regular inclusion of monitoring strategic initiatives in the board's agenda. It is, thus, possible to confirm the critical role of a chairperson as an enabler of the potential of value creation of boards through their influence in several factors that impact board's performance in strategic monitoring.

Influence of Attention to Strategic Monitoring

Confirming prior indications on the extant literature, the results showed that boards' performance in monitoring SI depends directly on the degree of attention devoted to it (H5). As different tasks compete for board's attention, it is often the case that the task of strategic monitoring is overlooked. It is, therefore, suggested by the empirical results that it is necessary to adopt norms and internal policies that include this task in the board's agenda in order to enhance its performance. Besides the time allocated during board meetings, non-executive

directors should dedicate enough time to prepare themselves with the relevant information to effectively contribute to discussions related to monitoring SI.

Concerning the antecedent factors, the influence of Chairperson Leadership, mediated by the Attention to Strategic Monitoring, emerged as an important antecedent to conduct the boards' agenda so that regular attention to monitoring SI is ensured. Comparing the standardized parameters of the two direct antecedent factors of effectiveness in monitoring SI, shown in Figure III, it is noted that the standardized parameter that relates Attention to Monitoring SI to Board Effectiveness in Monitoring SI ($AT \rightarrow SM = 0.55$) is higher than the relationship between Work Dynamics and Board Effectiveness in Monitoring SI ($WD \rightarrow SM = 0.41$). This result suggests that attention to monitoring SI can be more relevant than work dynamics in improving a board's effectiveness in monitoring SI.

CONCLUSION AND IMPLICATIONS

This study analyzed how non-structural factors affect the performance of Portuguese boards of directors in the task of monitoring strategic implementation, based on the conceptual model developed by Amaral-Baptista (2013), which proposed that board's effectiveness is influenced by non-structural factors. A survey with a final sample of 105 valid questionnaires, answered exclusively by non-executive directors of Portuguese companies, was conducted in order to gather data on the Portuguese board's context. Using the same hypothesis of relationships of the study of Amaral-Baptista (2013), the conceptual model was applied in Portugal in order to ascertain the mediation logic between the antecedent constructs researched: (i) Access to information; (ii) Business Knowledge; (iii) Work Dynamics; (iv) Chairperson Leadership; and (v) Attention to Strategic Monitoring. It was possible to verify that Board Effectiveness in Strategic Monitoring is positively explained by Chairperson Leadership, Attention to Strategic Monitoring and Work Dynamics. Although Access to Information had a significant and positive influence on Business Knowledge, the effects of these factors on Board Effectiveness in Strategic Monitoring were not confirmed. Chairperson Leadership emerged as a key antecedent factor of a board's performance in strategic monitoring, as it simultaneously influenced Work Dynamics, Attention to Strategic Monitoring and Access to Information.

The findings contribute to the literature on corporate governance, boards of directors and strategy in several ways. From a theoretical standpoint, they enrich the still scarce but growing non-mainstream literature on boards, specifically the role of non-executive members in monitoring SI. This aspect is particularly important as it can contribute to a better understanding on how the potential of value creation of boards can be activated in the specific context of monitoring SI. Secondly, it shed light on the influence of board dynamics and the quality of interactions inside the boardroom. This is relevant because very few studies focus on nature of the relationships between these "soft" factors and the performance of boards. In third place, the study replicated and provided confirmatory empirical evidence for Amaral-Baptista's (2013) non-structural explanation of board performance.

From a management practice perspective, the study provides concrete guidance and tools to Portuguese board directors and practitioners who aim to improve their performance at board level. It also supports a number of actionable recommendations to improve the the quality of a board's intervention in the strategic monitoring process, as follows:

- Regarding access to information, it is important that non-executive directors allocate more time to the company. It is, therefore, suggested that companies analyse the costs and benefits of engaging non-executive directors that seat in several BoD, as "busy boards" can compromise effective monitoring (Fich & Shivdasani, 2006:689). Regarding work dynamics, this study highlights the importance of non-structural aspects to the contribution of interactions and work processes within a boardroom. For instance, these non-measurable aspects should be evaluated in every board meeting in order to determine specifically, which are most effective to the detriment of others to the discussion of company's issues.
- Concerning chairperson leadership, the results of this study helped to understand the importance of the chairperson as a facilitator regarding Access to Information, Work Dynamics and Attention to Strategic Monitoring. The ability to provide the flow of the necessary information, to potentiate rich dynamics in the boardroom and to allocate specific time to attention to strategic monitoring is crucial for the

effectiveness of monitoring SI. Thus, it is recommended that processes of recruitment and evaluation of the chairperson take these traits into account. In addition, it is recommended that non-executive members provide a regular evaluation of the chairperson regarding issues of access to information, work dynamics and attention to strategic monitoring.

- As for attention to strategic monitoring, the results highlighted the need to prioritize tasks of strategic control in comparison to other tasks that compete for a board's attention. Therefore, it is recommended that boards dedicate specific time to monitor the progress of the company's strategic progress and key strategic initiatives.

LIMITATIONS AND FUTURE RESEARCH

A combination of structural and non-structural factors may provide an even more robust explanation of the antecedents of board performance in strategic monitoring. For example, CEO duality is common in Portuguese companies (44.8% of the research sample). Thus, it may be interesting to investigate CEO duality implications in board effectiveness in monitoring SI.

From a work dynamics perspective, boards with socially-related members can neglect the discussion of crucial points concerning strategic execution. Thus, it may be promising to explore the potential impact of the independence of non-executive directors in monitoring SI. The effectiveness of “busy boards” in strategic monitoring also deserves further study. As indicated in section 5.2., according to Fich & Shivdasani (2006:689), busy boards are defined as “those in which outside directors hold three or more directorships”. Should the companies limit the number of boards non-executive directors can seat in order to prevent their possible ineffective monitoring capacity because of serving on several boards? Finally, as Esperança et al. (2011) suggested, ownership concentration may limit the ability of minority shareholders to influence the strategic decision process. Thus, a highly concentrated ownership structure may diminish the strategic monitoring ability of boards. Future studies may investigate this proposition further.

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APPLYING THE LEADERSHIP SCALE TO MEASURE GENERATION Y STUDENT ATHLETES' PERCEPTIONS OF THE LEADERSHIP BEHAVIOUR OF SPORT COACHES

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ABSTRACT

The leadership behaviour of sport coaches is important to athletes as it influences their performance and motivation. Many theories and models have been developed on leadership with the objective of determining what constitutes a good or effective leader. This study focused on applying the sport leadership scale of Chelladuria and Saleh (1978) to determine the perceptions of Generation Y student athletes concerning the leadership behaviour of coaches. The leadership scale consists of five dimensions of leadership attributes. A convenience sampling method was used to collect data from a sample of 166 (N=166) sport students. The collected data was analysed using confirmatory factor analysis to investigate the applicability of the scale to sport students. More than 87 percent of the items loaded on the correct dimensions as specified by Chelladuria and Saleh (1978), which suggests that this scale is suitable for measuring sport coaches' leadership behaviour in the South African context. Independent-samples t-tests were conducted in order to identify whether there were any significant differences in the coaching behaviour in terms of gender. Results indicate no significant difference on gender, suggesting that gender does not seem to have any impact on the perceptions of coaches' leadership behaviour.

Keywords: Generation Y sport students, leadership behaviour, perceptions, sport coaches

INTRODUCTION

Leaders are agents of change and affect followers to achieve common goals (Northouse, 2010; Gibson, Ivancevich & Donnelly, 2000). Leadership involves influence and occurs in groups where attention is given to common goals (Northouse, 2010). Laios, Theodorakis and Gargalianos (2003) made the following provocative statement about sport leadership "Probably no other quality is more important in the world of sports than leadership, the lack of which might create problems regarding discipline, communication, psychological and mental preparation, which can reduce individual and team performance" (p.150).

Leaders may be described as individuals with unique traits, who exhibit leader behaviour and who have the ability to influence organisational culture (Yukl & Fleet, 1992). Bahrami, Zardoshtian and Jourkesh (2011) state that a coach or leader should be considered as a supporter rather than to disciplinarian or dictator. McCormack (2007) is of the view that the most crucial factor of a coach's success is the ability to assist athletes to develop their skills and to recognise individual athlete's mental and psychical characteristics that impact on their performances. Meer and Rosen (2008) highlight that effective coaches are those who are familiar with the psychological and sociological issues of their athletes. Therefore, coaches not only care about sport skills but also consider, for example, the mental and social skills of athletes. However, Zaccaro, Rittman and Marks (2001) are of the opinion that leader effectiveness does not always translate into team effectiveness.

There are diverse research studies on the leadership behaviour of coaches. For example, Nazarudin, Fauzee, Jamal, Geok and Din (2009) conducted a study that compared the relationship between coaching leadership behaviour and the athletes' level of satisfaction. Lindauer (2000) compared the preferred coaching

leadership behaviour of individual college athletes with that of college team athletes. The focus of the study reported in this paper was to ascertain the applicability of the coach leadership scale of Chelladuria and Saleh scale (1980) on Generation Y student athletes and to determine their perceptions regarding the leadership behaviour of their coaches. Many of the studies conducted prior to 1980 used management/business leadership scales to determine the leadership behaviour of coaches. While these scales had their uses, Chelladurai and Saleh (1980) took the initiative to develop a leadership scale specific for coaches in the sport context.

This leadership scale for sport, also known as the LSS (Chelladuria & Saleh, 1980), proposes that leadership in sport comprises the following five dimensions, namely training and instruction, democratic behaviour, autocratic behaviour, social support and positive feedback. Chelladuria and Saleh (1980) explain the meaning of each dimension as follows: Training and instruction is one of the important functions of the coach and focuses on improving the performance level of the athlete. This dimension also addresses coaches assisting athletes in reaching their maximum physical potential through the acquisition of specific skills. The democratic and autocratic behaviour of coaches concern the extent to which the athlete is allowed to make his/her own decisions. The authors highlight that the distinction between democratic and autocratic behaviour is consistent with that in organisational behaviour research. The social support dimension is about how the coach is involved in satisfying the interpersonal needs of athletes. The positive feedback dimension is about whether the coach gives positive feedback regarding the achievements of athletes. Chelladuria and Saleh (1980) point out that positive feedback from a coach is crucial in motivating athletes.

A number of studies have utilised the Chelladuria and Saleh (1980) scale in different contexts. For example, Wałach-Biśta (2013) adapted the leadership sport scale to examine coaching behaviour in the Polish context. Pawar, Yadav and Sharma (2009) did an analysis of leadership behaviour preferred by individual sport athletes at inter-varsity level. In 1984, Terry and Howe used the LSS to determine the coaching preferences of athletes.

PURPOSE OF THE STUDY

The main purpose of this study translated into the following research questions: First, to determine the applicability of the leadership scale of Chelladuria and Saleh (1980) on Generation Y student athletes in South Africa concerning their perceptions of the leadership behaviour of their coaches. Secondly, to determine whether male and female sport students differ in their perceptions concerning the leadership behaviour of their coaches and thirdly, to determine whether white and black sport students differ in their perceptions regarding the leadership behaviour of their coaches.

METHODOLOGY

The research study followed a quantitative approach using a self-administered structured questionnaire. The target population was specified as full-time Generation Y sport students aged between 18-24 years, enrolled at a South African registered public higher education institution. A non-probability convenience sampling method was used to collect the data from a sample 166 students.

Measurement instrument and data collection procedures

A self-administered structured questionnaire was used to collect the required data. The questionnaire included the leadership sport scale of Chelladurai and Saleh (1980) to measure Generation Y sport students' perceptions of the leadership behaviour of their coaches. The scale included 40 items, divided into the five dimensions of training and instruction, democratic behaviour, autocratic behaviour, social support and positive feedback. Responses were measured on a five-point Likert scale, which ranged from never (1), seldom (2), occasionally (3), often (4) and always (5). A pilot study was conducted among 50 sport students to ascertain the internal-consistency reliability of the scale and to ensure that students understood the questions as intended. The sport lecturers administered the questionnaire after lectures.

DATA ANALYSIS

The statistical package IBM SPSS Version 22 was used for the data analysis. Confirmatory factor analysis using principal components analysis was conducted to determine whether the items loaded on the same dimensions of that of the study. Reliability tests were conducted to measure the internal-consistency reliability of the scales in the questionnaire. Descriptive analyses were also computed. Independent-samples *t*-tests were conducted to determine whether perceptions of sport students with regard to their coaches' leadership behaviour differed by gender.

RESULTS

Sample characteristics

Of the 166 Generation Y sport students who participated in the study, 89 were males and 77 females. Majority of the male sport students indicated that they played soccer whilst most of the female participants indicated that they play netball. The demographic information is provided in Table 1.

Table 1: Sample description

Variable	Categories	N	%
Gender	Male	89	54
	Female	77	46
Race	Black	124	75
	White	42	25
Sport	Rugby	21	13
	Soccer	60	31
	Netball	32	19
	Athletics	13	8
	Hockey	17	10
	Other	23	14

Factor Analysis

As the primary objective of the study was to determine whether the leadership sport scale could be applied to Generation Y student athletes in South Africa, principal component analysis using varimax rotation was used to determine whether the factor structure of the scale corresponded with that of Chelladurai and Saleh (1980). Prior to conducting the analysis, the sampling adequacy of the sample data was checked using Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity. The KMO value was computed as 0.850, which is well above the suggested minimum value of 0.6 for good factor analysis (Pallant, 2010). A Bartlett's Test of Sphericity was significant ($\chi^2 (780) = 3383.283, p < 0.000$), thereby providing additional evidence that the sample data were suitable for factor analysis (Pallant, 2010). The results of the principle component analysis are reported in Table 2.

Table 2: Factor analysis results of perceptions

	Factors				
	1	2	3	4	5
Factor 1: Training and instruction					
Sees to it that every athlete is working to his/her capacity	.660				
Explains to each athlete the techniques and tactics of the sport	.643				
Pays special attention to correcting athlete's mistakes	.668				
Make sure that his/her part in the team is understood by all the athletes	.593				
Instructs every athlete individually in the skills of the sport	.585				
Figures ahead on what should be done	.635				
Explains to every athlete what he/she should and what he/she	.617				

should not do					
Expects every athlete to carry out his assignment to the last detail	.481				
Points out each athlete's strength and weaknesses	.409				
Gives specific instructions to each athlete as to what he/she should do in every situation	.620				
Sees to it that the efforts are coordinated	.604				
Explains how each athlete's contribution fits into the total picture	.572				
Specifies in detail what is expected of each athlete	.714				
Factor 2: Democratic Behaviour					
Asks for opinion of the athletes on strategies for specific competitions		.589			
Get group approval on important matters before going ahead		.530			
Allows his/her athletes to share in decision making		.688			
Encourage athletes to make suggestions for ways for conducting practices		.652			
Allows the group to set its own goals		.650			
Allows the athletes to try their own way even if they make mistakes		.765			
Asks for opinion of the athletes on important coaching matters		.774			
Allows the athletes to work at their own speed		.641			
Allows the athletes to decide on the plays to be used in a game		.566			
Factor 3: Autocratic behaviour					
Works relatively independent of the athletes		.452			
Does not explain his/her action		.754			
Refuses to compromise a point		.755			
Keeps to himself/herself		.759			
Speaks in a manner not to be questioned		.766			
Factor 4: Social Support					
Helps the athletes with their personal problems		.467			
Helps members of the group to settle their problems		.452			
Looks out for the personal welfare of the athletes		.482			
Does personal favours for the athletes		.725			
Expresses affection he/she feels for his/her athletes		.663			
Encourages the athlete to confide in him/her		.672			
Encourages close and informal relations with athletes		.680			
Invites athletes to his/her home		.666			
Factor 5: Positive Feedback)					
Compliments an athlete for his/her performance in front of others		.633			
Tells an athlete when he/she does a particular good job		.725			
Sees that an athlete is rewarded for a good performance		.632			
Expresses appreciation when an athlete performs well		.742			
Gives credit when credit is due		.676			
% of variance explained	25.279	9.348	7.269	5.996	4.067
Cumulative %	25.279	34.627	41.896	47.893	51.960
Extraction method: Principal Component Analysis					
Rotation method: Varimax with Kaiser Normalisation					
Suppressed at the level 0.3					

As is evident from Table 2, the principle component analyses analysis provided a five-factor solution that explained 51.960 percent of the total variance. All variables loaded as expected and all had significant loadings of above 0.40, these significant loadings suggest convergent validity. In addition, all of the communalities were above 0.40, with the majority being above 0.50, thereby suggesting that a large amount of the variance in an item has been extracted by the factor solution (Hair, Black, Babin, & Anderson, 2010).

Descriptive analysis

The descriptive statistics and reliability coefficients of these five factors are reported in Table 3.

Table 3: Perceptions of coaches' leadership behaviour

Factor	Mean	Standard deviation	Standard error	Cronbach
Training and instruction	3.90	0.59	.9086	.877
Democratic Behaviour	3.26	0.83	.12939	.872
Autocratic Behaviour	2.66	0.88	.13525	.788
Social Support	3.06	0.80	.19444	.838
Positive Feedback	4.35	0.65	-.11556	.786

As presented in Table 3, the positive feedback factor with regard to the leadership perceptions of coaches scored the highest of all the five factors with a mean value of 4.35, followed by training and instruction (3.90), democratic behaviour (3.26), social support (3.06) and authoritarian behaviour (2.66). This indicated that the Generation Y student athletes believed that they were getting more than adequate support on this factor. The low score on the authoritarian factor is an indication that coaches were more democratic which bodes well for a supportive function by coaches as well. There were no major findings regarding the perceptual differences of males and females pertaining to the leadership behaviour of coaches. The reliability Cronbach values are also provided in Table 3. The Cronbach alpha of .877 of the training and instruction dimension (TI 1) was the greatest. The Cronbach values of all the five factors had Cronbach alpha values greater than .70, which exceeded the recommended level of 0.70 as suggested by Nunnally (1978).

Independent-samples t-tests

Table 4: Gender differences on leadership perceptions of coaches

Factor	Male Mean	Male Standard Deviation	Female Mean	Female Standard Deviation	T-Values	P-Values
Training and instruction	3.9376	.50749	3.8808	.67338	.626	.532
Democratic Behaviour	3.2395	.72582	3.2653	.95622	-.199	.842
Autocratic Behaviour	2.6956	.93291	2.6350	.81677	.448	.655
Social Support	3.1569	.81195	2.9625	.79962	1.570	.118
Positive Feedback	4.3044	.67189	4.4200	.62892	-1.153	.250

* Significant at the 0.50 level

As indicated in Table 4, an independent-samples *t*-test was conducted to determine whether the perception of males and females differed significantly with regard to the perception of the leadership behaviour of their coaches. There was no significant difference in scores for males and females, suggesting that gender does not seem to have any impact on the perceptions of the leadership behaviour of their coaches.

DISCUSSION

It is easy to point to examples of great leaders, but it is a lot more difficult to determine their specific characteristics (McCormack, 2007). The leadership behaviour of sport coaches is important to athletes as it influences their performance and motivation. Many theories and models have been developed on leadership with the objective of determining what constitutes a good or effective leader. In South Africa the Government has set out the vision of 'an active and winning nation' where participation levels and international success in sport are

increased. Therefore in South Africa (along with the rest of the world), the importance of leadership behaviour of sport coaches should be emphasised.

In this study the Generation Y students indicated that they feel leadership behaviour of coaches is important and pivotal to their success in sport. As it stands, coaches provide positive experiences in sport for millions of South Africans every year. Through their work, coaches recruit and retain participants to support the mass participation agenda and they provide the guidance necessary for athletes to progress to performance and high performance levels. However, a fundamental issue in South African sport is to engage male and female black coaches.

This study utilised the well-known, established and validated Chelladurai and Saleh (1980) in the South African context to determine Generation Y student athletes' perceptions of the leadership behaviour of sport coaches. The factor structure that emerged from the confirmatory factor analysis was in line with that Chelladurai and Saleh (1980), showing that all variables loaded as expected and all had significant loadings. The descriptive statistics suggest that Generation Y student athletes believed that they were getting more than adequate support from their coaches. The positive feedback factor with regard to the leadership perceptions of coaches scored the highest of all the five factors and authoritarian behaviour the lowest. The low score on the authoritarian factor is an indication that coaches were more democratic which bodes well for a supportive function by coaches as well. There were no major findings regarding the perceptual differences of males and females pertaining to the leadership behaviour of coaches.

This finding suggests that leadership behaviour of coaches is important for Generation Y students. Therefore the Chelladurai and Saleh (1980) can be used in identifying the perceptions of Generation Y students with regard to the leadership behaviour of their coaches. Coaches can therefore use the leadership scale in sport determining the perceptions of Generation Y students with regard to their particular "shortcomings" and "strengths". It can also be used in terms of how coaches differ from one another as well as be used as a longitudinal study to track perceptions of students in respect of the leadership behaviour of coaches over time. It should be noted that these are only perceptions.

LIMITATIONS OF THE STUDY

The research study was conducted at one institution, which is a drawback. Therefore, the results cannot be generalised to other South African higher institutions. It would be of value if the study could be rolled-out to other institutions or even sport clubs to determine whether the results will be of a similar nature. As such, future research relating to Generation Y student athletes' perceptions of the leadership behaviour of sport coaches is advised.

CONCLUSION

Sport coaches should have an idea of the perceptions and expectations of their athletes regarding their leadership and coaching behaviour and whether their leadership behaviours are appropriate in a particular sport code. Some athletes have a preference for a particular leadership behaviour style and this can impact on the athlete's motivation and performance. There should be a match between the coach's leadership behaviour and what the athletes prefer so that all the outcomes can be positive. It is important that coaches need to get feedback from athletes as to know how these athletes perceive their leadership behaviour whether or not it is viewed in a positive or negative light. There should also be an understanding of the kind of relationship that is acceptable and beneficial to both the coach and the athlete.

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DOES LACK OF SOME RESOURCES AND SLACK OF OTHER RESOURCES PLAY A ROLE IN MOTIVATING FIRMS IN ARAB EMERGING ECONOMIES TO FORM INTERNATIONAL STRATEGIC ALLIANCES? EVIDENCE FROM QATAR AND UNITED ARAB EMIRATES

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ABSTRACT

In our today's networked business environment collaborative relationships with business partners are becoming essential to the survival and growth of any business organization. Nonetheless, many organizations are reluctant in developing such relationships mainly because of their high failure rates. This study seeks to investigate the role does lack of some resources and slack of other resources play in motivating firms in Arab emerging economies to form international strategic alliances. Research method used in this study is the case study based on in-depth semi-structured interviews, structured interviews (self-administered questionnaires), and documentary analysis, which is referred to as triangulation. Two cases from Qatar and other two cases from United Arab Emirates (UAE) were selected for the purpose of conducting this study. Preliminary analysis shows that while some business organizations enjoy abundance of some resources, they suffer lack of other resources. More specifically, results indicate that slack of financial resources and lack of technological know-how motivates firms in Arab emerging countries to find business partners having complementary resources to form strategic alliances with.

Keywords: Resources, resource-based view, motives, international strategic alliances, Arab emerging countries, Qatar, United Arab Emirates.

INTRODUCTION

The use of international strategic alliances as a business strategy is increasing over the last three decades (Bai and O'Brien, 2008). This trend proves that firms need to be knowledgeable of how to extend their collaborative relationships with their rivals to prosper in the new networked market. These collaborative relationships are a rational response to forceful and prompt changes in technological development, economic activity, and globalization (Rigby and Zook, 2003). This trend also triggered the attention of both business practitioners and academic researchers. Strategic alliances can be defined as cooperative strategies in which firms combine some of their resources and capabilities to create or gain a competitive advantage (Hitt et al., 2005, p. 271). Thus strategic alliances implicate partnering firms with some degree of complementary resources and capabilities to generate value as the basis for novel competitive advantages (Bai and O'Brien, 2008). This definition shows that the prime reason for firms to develop strategic alliances is that most firms lack different resources and capabilities needed to accomplish their objectives and, hence, partnering with others provides the opportunity of achieving them.

Extant literature indicates that there are several benefits for companies to form strategic alliances and combine some of their resources and capabilities. Strategic alliances enable business firms to gain strategic benefits through the combination of technological know-how or other resources (Harrigan, 1985). Thus, one of the major motives to form strategic alliances is to pool the complementary resources of the partners. Some resources such as technological know-how are not available for sale. Hence, strategic alliances allow partnering firms acquire capability without having to develop expertise internally. Bagchi-Sen (2004), for example, maintains that a number of strategic alliances in the pharmaceutical and biotechnology industries are made on this logic. Combining and utilizing each other's resources and capabilities through strategic alliances not only enables partners to develop and produce superior products but also leads to creating financial and operational synergies by sharing complementary resources (Bai and O'Brien, 2008). This implies that organizations have varying degrees of resources. Some organizations may have shortages in some resources (lack of resources) and surplus of other resources (slack of resources). In addition to the benefits discussed earlier, strategic alliances provide firms with accessibility to a restricted market; speeds up the development of new products; and enables firms to maintain market leadership, overcome uncertainty, gain market power, overcome trade barriers, and set up barriers for new entrants (Hitt et al., 2005). This study aims to investigate the role played by lack of some resources and slack of other resources in motivating firms from Arab emerging countries to form international strategic alliances.

Given the prevalence of oil exports and hence the abundance of resources in the UAE, many firms there control significant slack resources (Elbanna, 2010). Such slack resources can be beneficial to the strategic management processes in the Arab emerging countries. For example, Fadol, Barhem, and Elbanna (2015) argue that slack resources can thus be used to augment strategic planning in the UAE's health sector. This is especially important to the companies operating in countries where the business environment is characterized by a high level of dynamism. Nonetheless, as many firms in Arab emerging countries enjoy slack of specific resources, the companies may suffer lack of other resources which indicates existence of a gap in their resources. Ring and Van de Ven (1992) argue that several firms suffer gaps either in their technology, resources, or markets that no single firm in its own is able to gain or acquire. Nevertheless, business firms can fill these gaps and gain competitive advantage by coordinating efforts and combining complementary resources through strategic alliances (Pett and Dibrell, 2001). Therefore, this study aims to answer the following questions:

1. What kind of slack resources do organizations generally possess in Arab emerging countries?
2. What kind of resources do organizations generally lack in Arab emerging countries?
3. How does this gap in resource control, if any, motivate firms in Arab emerging countries to form international strategic alliances?

LITERATURE REVIEW

Resource-based view (RBV) can be used to explain the resource sharing motives for strategic alliances. RBV takes a firm as a collection of physical and human resources, and these tangible and intangible resources have to be used by the firm to achieve growth. According to the RBV, sources of sustained competitive advantage are the firm's resources that are valuable, rare, costly to imitate and non-substitutable. A firm's broad-based skills and capabilities are often referred to as core competencies. These resources are generally much harder to acquire, imitate, or substitute than physical resources and are more likely to provide the company with a longer-term competitive advantage (Tyler and Steensma, 1995). But the skills and capabilities can only be gained or enhanced through innovation and learning for firms to grow (Odagiri, 2003).

Das and Teng (1998) propose two motives for firms to form strategic alliances. These motives are obtaining partner's resources; and retaining and developing firm's own resources by combining them with partner's complementary resources. Strategic alliances can be used by firms to gain access to resources they lack and possessed by partners. These resources are valuable and critical to attaining competitive advantage. In this regard, Glaister and Buckley (1996) concluded that having access to complementary resources rather than the sharing risks and developing economies of scale were the major motives for firms to develop strategic alliances. While firms can obtain partner's selected resources not only through strategic alliances but also by using mergers and acquisitions, the RBV asserts that strategic alliances are preferred over mergers and acquisitions when the acquiring firm is not interested in all the resources possessed by the target firm. Less valuable resources in a

merger or acquisition cannot be simply removed without taking a loss (Ramanathan et al., 1997). Therefore, when less valuable resources are not easily detachable, strategic alliances give partners the opportunity to access only the resources each desires while avoiding non-desired ones, thereby enhancing value. Moreover, when a firm is only interested in learning about one competence among the many possessed by the firm it aims to purchase, then mergers and acquisitions is virtually meaningless (Badaracco, 1991). Thus, the distinctive benefit of strategic alliances is to get access to exactly those resources that are desirable (Das and Teng, 2000b). There are some resource characteristics that encourage firms to form strategic alliances. These characteristics are imperfect mobility, imperfect imitability, and imperfect substitutability (Barney, 1991; Peteraf, 1993). If firm's resources are perfectly or easily mobile, imitable, and substitutable, other firms would be able to attempt such resources away from this firm in factor markets. In such cases there would be no need for firms to develop a strategic alliance. If all necessary resources are available in factor markets at reasonable prices, it would be unwise for firms to form strategic alliances (Osborn and Baughn, 1990). Therefore, it is widely argued that imperfectly mobile, imitable, and substitutable resources should only be obtained through alliances. Whereas the reason behind obtaining resources is to access partner's resources, the motive of retaining resources is to retain firm's own valued resources securely. Kogut (1988) argues that firms may desire to preserve certain resources but lack the arrangement to get benefit out of them. Strategic alliances may help utilizing those resources by combining them with complementary resources from potential partners. This indicates that slack resources can be utilized to permit firms to advance their capabilities to innovate, facilitate strategic behaviors, and thus create value (Cheng and Kesner, 1997; Nohria and Gulati, 1996). However, other researchers (e.g. Sirmon et al., 2007; Vanacker et al., 2013) maintain that slack cannot get advantage of itself and, hence, creating value and developing competitive advantage out of resources cannot be realized merely by possessing these resources. This implies that strategic alliances can be formed by firms to get use of their slack resources and to correct weaknesses of lack of other resources.

METHODOLOGY

The realism approach will be utilized to conduct this research. Realism adopts a middle ground in a dichotomy identified as positivism and phenomenology. This approach will be utilized by this study because it takes the advantages of both positivism approach and phenomenology approach and helps to understand the process by which people interpret the world. In so doing, the realism approach calls for the utilization of the qualitative approach. The qualitative research approach is designed to enable researchers to obtain a detailed description and to attain in-depth information for a better understanding of the phenomenon under investigation (Yin, 1989; Eisenhardt, 1989). In addition, methodologists have strongly argued that qualitative methods are suitable and vital when the research is exploratory (Darlington and Scott, 2002; and Yin 2003) and when the research questions are of what is, how or why type (Amaratunga et al., 2002; Spencer et al., 2003). The realism approach relies on semi-structured interviews and case studies to enable the collection of rich, subjective data (Stiles, 2003). In strategic studies such as Strategic alliances, empirical data have been collected by means of case studies and interviews (Frankel et al.). Multiple sources of data are used in case studies to increase validity and reliability (Yin, 1994). Hence, research method used in this project is the case study based on in-depth semi-structured interviews, structured interviews (self-administered questionnaires), and documentary analysis, which is referred to as triangulation. Semi-structured interviews will thus be used because such a method would, according to Denzin (1989), adequately provide for a combination of objectivity, flexibility and depth. Unlike semis-structured interviews, structured interviews (self-administered questionnaires) utilize closed questions. Documentary evidence sought to "corroborate and augment evidence from other sources" (Yin, 2003:31). The process of data collection is still in progress. Data has been partially collected from manufacturing and service firms in Qatar and UAE. For the purpose of data analysis, this study will utilize the procedures and techniques suggested by the within case and across case analysis recommended by Eisenhardt (1989) and the replication logic suggested by Yin (1989) to detect similarities and differences between cases. Data obtained from one interview will be cross-checked with data from other interviews, and against the documentary evidence and observations (i.e. triangulation). All in all, the data analysis stage is divided into three phases. The first phase includes generation and description of propositions. The second phase involves interpretation of the generated propositions; and the third phase deals with elaboration and reflection of these propositions.

RESULTS AND DISCUSSION

This study aims to investigate the role played by lack of some resources and slack of other resources in motivating firms from Arab emerging countries to form international strategic alliances. Preliminary analysis of data collected shows that companies from Arab emerging countries enjoy control of some slack resources and suffer from lack of other resources. On the one hand, these companies are characterized by having abundance of financial resources and human resources. On the other hand, these companies mainly lack technological resources. This situation motivates several companies in Arab emerging countries seek to form international strategic alliances with partners which can provide complementary resources. Results also show that all strategic alliances were formed with foreign partners rather than local ones. This trend could be attributed to the fact that technological know-how which these companies lack is not easily accessible in the local market. Data analysis process is still in progress and more results with detailed discussion are expected to be added to this section.

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GOVERNMENT INITIATIVES IN SUPPORT OF SMALL AND MEDIUM SIZED ENTERPRISES IN SOUTH AFRICA

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ABSTRACT

The purpose of this study was to assess whether the small and medium sized enterprises (SMMES) have knowledge of government initiatives and support towards their development in South Africa, using the case of Khayelitsha Township in the Western Cape Province. The inception of democracy in South Africa opened doors for the promotion of entrepreneurial efforts towards the upliftment of the development of SMMES for economic restructuring and poverty alleviation. This paper argues that although the South African government provide opportunities and support towards the development of SMMES, there are still barriers that inhibit SMMES to sustain their business ventures and initiatives. The study employed a mixed methodological approach to collect data, where Khayelitsha was used as the study area. Lessons from the findings contribute towards governance of small and medium sized entrepreneurs.

Keywords: Small and Medium Enterprise, entrepreneurship, support, initiatives, government.

INTRODUCTION AND BACKGROUND

In the post-apartheid South Africa, the promotion of entrepreneurship and small business remains an important priority of the government of South Africa. The government intentions is to ensure that SMMES progressively increase their contribution to growth and performance and boost the South African economy in critical areas such as empowerment and training, skill transfer and job creation, equity and access to markets. Since 1995, the adoption of the White Paper on national strategy for the development and promotion of small business in South Africa was an important milestone as a comprehensive policy and strategy on small business development was formulated in the country.

There are various key players in the South African economic environment that stimulate small business development and growth. The global village is also harnessing the widespread commitment to fostering entrepreneurship and promoting small enterprises goes beyond the Government and its institutions. It extends to other actors in the economy, such as large corporations, the media, non-governmental organisations (NGOs), chambers of commerce and commercial banks. There is no doubt that there is a need to re-assess, consult and research more on the workable approaches and modifications of strategies to support small and medium business. According to Malefane (2011, 1) the development of SMMES should play a vital role in South Africa's economic development –particularly in the restructuring of the economic-base of local municipalities. The study will later focus on the research methodology, background to the problem, government initiatives in support of SMMES, interpretation of findings, conclusions and recommendations.

According to statistics from the City of Cape Town Report (2013:5), it was revealed that the housing dwelling profile in Khayelitsha comprised of 44.5% habitants that leave in formal dwelling, and 8.1% live in informal dwellings /shacks in backyards, while 46.6% live in informal dwellings /shacks not in backyards and 0.9% were not specified. The Census 2011 in terms of employment revealed that 49.7% of the population in Cape Town between the ages 15 to 64 years are employed, and 15.6% was unemployed, and the discouraged work seekers are a portion of 3.1%, and the economically inactive represented 31.6% (CCT, 2013:4). It is a fact

that this area is characterized by inadequate services and no affordable housing, poor education, poor health, unemployment, poverty and malnutrition. Having this kind of life-style, we can deduce that the people of Khayelitsha need an inducement towards strategies that will relieve them from this sadness and economic strain and consider job creation through entrepreneurship as another choice. With the unemployment rate that is so high in the country, the Western Cape is better off as compared to other provinces.

Khayelitsha SMMEs on the other are not winning, as they are not capable of creating jobs and curbing poverty by SMMEs. Due to high unemployment rate in Khayelitsha this indicates poverty is high. This poses as a gap, a need for job creation as it is evident that the unemployment rate is high and entrepreneurs need to identify the gap more especially on youth that is unemployed. Some of the small and medium businesses in Khayelitsha lack appropriate business skills, education, and knowledge in terms of running a business, and also require finance to enable them to operate and expand their businesses. This therefore serves as a research problem of the study. The question arises is what level of education do these business have and also the acquired skills necessary in order for these businesses owners to make decisive business decisions. It is therefore fundamental to identify the specific skills that are critical to make Khayelitsha's entrepreneurs competitive within their businesses.

LITERATURE REVIEW

The Concept of SMMEs

The South African White Paper on the National Strategy for the Development and Promotion of Small Business in South Africa (1995) focus more on the development of a conducive environment for small enterprises that will develop opportunities for learning of finance and prosperity and gross opportunities and address the legacy of apartheid for empowerment of black businesses and improve women in all trade areas. The definition of SMMEs is interpreted differently in various countries because their responses on the national and local government challenges vary. According to the National Small Business (Act 102 of 1996), SMMEs are categorised into five stages of development: (1) survivalist, (2) micro, (3) very small, (4) small and (5) medium-sized enterprises. Even though the Integrated Small Business Development Strategy has been implemented, there are still gaps and challenges in the implementation of government initiatives to support small business development in South Africa. The purpose of the existing legal and policy framework on the government initiatives towards the development of SMMEs is to certify that small businesses are progressive and can expand more on their own involvement, expansion and accomplishment of the South African financial system in crucial areas, such as job formation, fairness and entrance to marketplaces.

Challenges of SMMEs

The SMMEs in Khayelitsha are not immune to financial constraints and other barriers facing small business entrepreneurs in South Africa. It is also argued that rural communities faces more obstacles like financial and environmental issues than their counterparts in well-developed suburbs and cities (Van Vuuren & Groenewald, 2007:269). Halkias, Nwajuba, Harkiolakis and Caracatsanis (2011:225) postulate that small entrepreneurs in Africa face many obstacles in trying to generate revenue; furthermore entrepreneurs in poor urban areas still face challenges in growing their businesses. Finance is one among several challenges, which is encountered by small business entrepreneurs. Bureaucracy and other impediments surface when it comes to extending financial help to the small business sector. Finance appears to be the most critical of constraints, which confront small businesses start-up, success and development in South Africa and also developed and developing countries. The access to funds, and costs of financing are among the obstacles for business ventures and their growth and success in Sub Saharan Africa (Mahadea and Pillay 2008:433). The evidence highlights that finance plays a critical role in business development; with a lack of funds for a business venture the business will be cash-strapped. Enabling with finance will assist the business, especially the start-up, to succeed and will remove red tape. South Africa (2003:41) reveals that there are challenges in terms of accessing finance in Commercial banks in more specifically to Black owned businesses and this pose as a barrier in terms of micro enterprise development.

Government strategies in support of SMMEs

There are various government initiatives and strategies existing to develop and nurture the small and medium entrepreneurs. Government in South Africa has a mandate to promote and develop small and medium business in more specifically the disadvantaged communities. There are policies and regulations, and also institutions that provide financial and non-financial support, in place. The government plays an important role in providing support to small businesses. There are programmes in place to assist small businesses; however, there is more that still needs to be done. The success of these businesses relies on support from government, which is detailed in the following section in terms of government support to entrepreneurs. The government strengthening is geared towards the support and funding issues faced by small enterprises (National Credit Regulator, 2011:78).

The Small Enterprise Development Agency (SEDA)

The SEDA was established in December 2004 in terms of the [National Small Business Amendment Act](#). This law merged the previous small enterprise development agencies Ntsika Promotion Agency, NAMAC Trust, and the Community Public Private Partnership (CPPP), into a single small enterprise support agency. The mandate of this agency is to design and implement a standard national delivery network that should promote uniformly throughout the country. Its role includes the support and promotion of co-operative enterprises, particularly those that are located in rural areas. The work that they do is in line with the Department of Trade and Industry's Integrated Small Enterprise Development Strategy to strengthen support for SMMEs' access to finance (Small Enterprise Development Agency, n. d).

Industrial Development Corporation (IDC)

The IDC of South Africa is a self-financing, state-owned national development finance institution that provides financing to entrepreneurs and businesses that are engaged in competitive industries. It was established in 1940 to promote economic growth and industrial development in South Africa. The IDC recognises the importance of a dynamic private sector in securing and stimulating rapid and sustainable economic growth, creating employment and reducing poverty. Its mandate includes the rest of the African continent, and it is active throughout the entire region. It operates in a broad spectrum of industries and with specialized knowledge and experience, and is able to offer valid and appropriate financial assistance to a wide variety of individuals and companies (Industrial Development Corporation, 2009).

Khula Enterprise Finance

Khula Enterprise Finance Limited is dedicated to the development and sustainability of small business enterprises in South Africa. A leader in its field, it has a proud history of more than 13 years' service of involvement in the rapidly growing and economically vital, small and medium enterprise (SME) sector (Khula, 2009).

National Youth Development Agency (NYDA)

The NYDA previously known as Umsobomvu Youth Fund, was formed in 2001 by the government and was given the task of promoting entrepreneurship, job creation, skills development and skills transfer among South Africans between the ages of 18 and 35 (National Youth Development Agency, 2010). These institutions have failed in part or fully for the following reasons:

- Lack of awareness of the public in relation to programmes that are in place.
- Uneven distribution, since there is a concentration in Metropolitan areas.
- The high cost of searching for support services, which has been mitigated by effective information on how and where to access support.
- Troublesome administration requirements of government programmes resulting in user-fatigue and high levels of disappointments and
- The failure of the local business service centres towards the programme, since these institutions overestimated their capacity, as well as the capacity, of local business centres (Orford & Wood, 2006:8).

The evidence highlights that as government institutions are not as efficient and effective enough. This serve as a barrier for the small businesses to development by keeping a large, energetic and entrepreneurial group of Black South Africans out of the formal economy and, as a result, they become discouraged. Rogerson (2008:42) asserts that regulations create significant efficiency costs for the South African economy, including for SMME development, with strong evidence to show that the regulatory environment discouraged business growth in the formal economy. This it hampers business as there is no endorsement finance that entrepreneurs will get to sustain their businesses. Since regulations discourage Black small business entrepreneurs to succeed, especially those who are starting new ventures, these institutions should drive and assist entrepreneurs, particularly in areas of previously disadvantaged communities; however, they are not there showcasing themselves to ordinary small businesses.

Ngxiza (2011:11), claims that there are few large centres, being the local and district municipality which gives assistance to this formal and informal businesses in the poor location. The introduction of RED DOOR business support and training was a great initiative, in particular as there was a link between entrepreneurs and government service through the Department of Trade and Industry, Intsika, and Youth Development Agencies, which have challenges of capacity constraints.

THE RESEARCH METHODOLOGY

A mixed research methodology was employed in this study where both the qualitative and the quantitative approaches were used for data collection. The motivation for using a mixed methodology is to develop an understanding of one method to another and also ratify results from the dissimilar data sources (Creswell and Clark, 2011:73). Mixed methodology assist in gaining the in-depth understanding on some developments patterns and offer a more elegant approach to the research problem and generates its deeper understanding (Maree, 2007:15).

The primary data collection technique utilized in this study included survey questionnaires, observations and interviews. A purposive sample was drawn from a population of small businesses owners who are the formal and informal small business entrepreneurs in Khayelitsha. Survey questionnaires were distributed among the small and medium businesses who were the participants. According to Bless et al., (2006: 111) data comprise of measurements collected as an outcome of scientific reflection. The research methodology applied in this study contributed to the research design of this study. Research design is defined as a plan of how one intends to conduct a research (Babbie and Mouton, 2001:55). The objective is that this strategy assists the researcher to get better understanding of what is being investigated and viewed from different positions. Bless, Smith and Kagee, (2006:72) elaborate that the significance purpose of the research design approach is testing the hypothesis under the specified form.

The survey questionnaires consists of twenty six questions, the study initially targeted for n=100 surveys and manage to acquire n= 85 surveys. In terms of the interviewees, twenty questions were asked. Eighteen respondents that participated consisted of seven formal businesses and eleven informal businesses. Data data was analyzed qualitatively, and the quantitatively with a technique called Statistical Package for Social Science 20 (SPSS) programme. The text data was coded then transcribed for further analysis and the subdivisions of text was coded by ascribing classifications and then grouped into similar codes and themes (Maree, 2011:259).

THE BACKGROUND TO THE PROBLEM

The City of Cape Town report for 2013 indicates that the Census of 2011 revealed that the suburb of Khayelitsha population was 391 749 and the number of household as 118 809 with an average household size as 3.30. The population had grown by 79 000 people from 1996 to 2001 owing to urbanization and immigration of people from other provinces. In Khayelitsha, there had been an increase in the population rate as compared to the Western Cape, there has been increase as well in population rate specifically to the City of Cape Town (CCT, 2013:4). The study notes that while the community of Khayelitsha has grown, and there are opportunities, there are still gaps and inequality among the residents. The Western Province is indicated as wealthy with economic

activities boosting the provincial development, while Khayelitsha remains in a poor socio-economic state of affairs, with shocking disparities and inequality in terms of the residential economic status. Similarly, there are more economically active youth in Khayelitsha which can be employable.

In term of employment, Census 2011 revealed that in Cape Town 49.7% of the population between the ages 15 to 64 years are employed, unemployment was 15.6% and discouraged work seekers were 3.1%, while not economically active represent were 31.6%. With the unemployment rate that is so high in the country, the Western Cape was better of as compared to other provinces. Even though there are government initiatives to support the SMMES in Khayelitsha, there is not much progress made by the SMMES in achieving the targets of the National Strategy for the Development and Promotion of Small Business in South Africa. There are still challenges in finding job opportunities and reduce poverty levels; as reflected by slow pace in job creation, literacy rates and education, and high unemployment rates. This study intends to assess the extent to which the SMMES in Khayelistha are able to access and respond to the existing knowledge base as part of the government initiatives to support them. It is assumed that there are barriers that inhibit those SMMES from accessing and responding to the existing knowledge about existing government initiatives to support them.

INTERPRETATION OF FINDINGS AND DISCUSSIONS

The research findings are presented according to the responses based on the following objective and research question. The research objective is as follow:

- Determine the role that the government can play to effectively assist and promote SMMES.

The research question that lead to this objective was:

- To what extent are the SMMES able to access and respond to knowledge base on the existing government initiatives to support SMMES in Khayelitsha?

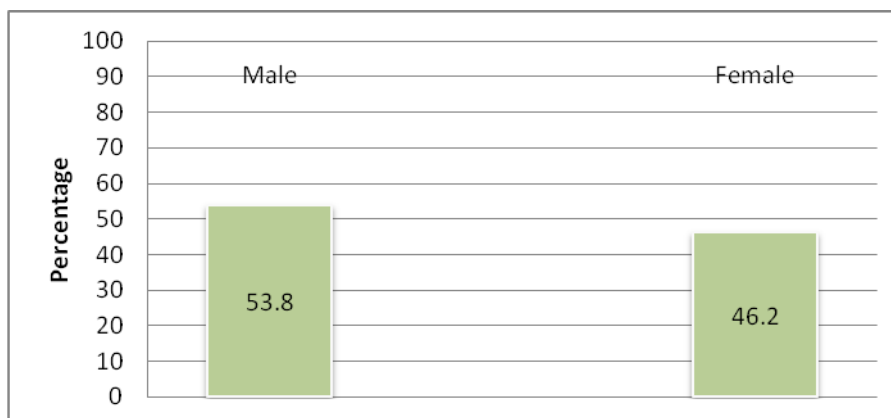
The research question under the objectives was to know the extent to which SMMES in Khayelitsha are aware and respond to existing knowledge base on the government initiatives to support small and medium enterprise. In this questions the Likert scale the respondents was asked questions so as to get their opinions indicate bipolar adjective pairs (using 5-point rating scale): Interviews were done so as to get more information which followed after the survey questionnaire.

Biographical representation

This section will provide the bio-graphical presentation of the participants.

1. Gender Composition

Figure 1: Gender



The results of the gender composition of the participants indicate the majority (53.8%) comprise of males followed by 46.2% females.

Age groups representation

The data collected on age groups of the survey participants: of the 21-40yrs is represented by the portion of 61.5%; and between ages 41-60 is represented by a portion of 37.5%. The reason for collecting this data was to determine the age range of the participants to establish which age-group is mostly active in business. The data suggests that the youth are the mostly active between the ages 31-40. The findings found that the most favourable age is between 23 years and 59. This study found that the active age above 40 represents only 38.5% as an active age group maturing in business.

Education background

According to data collected on the educational profiles of respondents, the 5.1% of the business owners do not have formal education; 44% have Grade 1-11; 13% have completed matric; 28.2% have an undergraduate degree; 5.1% have a postgraduate qualification, 2,6 % have a degree; and 1% did not respond.

Major challenges experienced by businesses

Respondents were asked to indicate inhibiting factors and challenges they experience while in business. The study revealed that about 38% of the respondents regard finance as a crucial factor in business, which small businesses regard as being vital for the business. A total of 18% of the respondents regarded space as a there is a fundamental factor that is lacking, which can assist them to trade; 11% of the respondents indicated that lack of equipment in order for the business to operate; 7% respondents saw crime as the major challenge ; 5% indicated growth; and the 2% indicated other factor.. It is clear that these entrepreneurs have challenges that are delaying their progress besides the fact that they also have limited knowledge about existing government initiatives.

Table 4.1 Cross tabulation between gender and education (n=38)

Gender	Education Background					Degree Economics	Total
	No formal education	Grade1 -Grade11	Matric/Grade 12 completed	Undergraduate degree	Postgraduate degree		
Males	1	6	4	7	1	1	20
Females	1	11	1	4	1	0	18
Total	2	17	5	11	2	1	38

Awareness and involvement of SMMES about government initiatives

Respondents were probed on their awareness of existing government institutions that provide support for the SMMES in South Africa. It was revealed that only 38.5% of participants indicated that they were aware of the Small Enterprise Development Agency initiatives by the government, whilst 38.5% didn't know and 12.8% were unsure, while 10.3% gave no response. In reference to the Industrial Development Corporation initiatives by the government, only 25.6% knew the institution, and about 53.8% did not know, while 10.3% were unsure and 10.3% gave no response. On the other hand only 38.5 % respondents were aware about National Youth Development Agency initiatives by the government, 46.2 % have been to the organisation and got assistance, and 5.1% were unsure, while 10.3% gave no response. In terms of awareness of RED DOOR only 33.3% know, 48. 7% do not know and 10.3% do not know and 7.7% did not respond.

Less than 50% knew about these funding programmes. This paper can conclude by saying that even though there are initiatives by the government to financially assist small businesses it is insignificant that the entrepreneurs make effort to seek for information and visit these institutions to inquire about the available support they can get. Mago (2013:20) posits that even though that the government remains devoted in supporting the business throughout the prerequisite with Khula and Ntsika under the Department of Trade and Industry there is still more that needs to be done. The National Credit Regulation Report on the SMMES (2011:11) highlight a strong need to educate the SMMES about the existing government programmes (like DTI) that can educate them to be debt free so that they can apply financial support they need for their businesses.

Discussion

The responses from the participants reflect a low level of awareness on the existing government initiatives to assist this enterprise, especially financial support and its conditionality. Another point is that SMMEs are still struggling to access and understand information from these institutions since they are not fully organised through their structures. Even though there are initiatives and strategies to boost the SMME industry, somehow they face challenges that inhibit them from sustaining their businesses. It is also a fact that government through various institutions and agencies is able to reach out to the grass route small enterprises with less financial base and inadequate marketing strategies. At the provincial level in terms of awareness 43.6% respondents have knowledge about a provincial help desk that assist entrepreneurs in the Western Cape, 46.2% are not aware and 10.3% are unsure. Only 17.9% of respondents are aware of Ikapa fund, and a vast majority (61.5%) are not aware, 10.3% are unsure and 5.2 % represent that there are other places they know, 48.7% respondents are aware of development programmes in Khayelitsha.

However, it is alarming that only 18% of the sample knew about funding initiative in the Western Cape Province. Since the mid-1990, all the provincial government with the minority exclusions have recognized small business directorates, with the highlighting decline on the coordination of private and public support programme, the monitoring of provincial trends, the leveraging of local authority. Some of the provincial government institutions have abandoned their support for small business in favour of large business promotion. As a result of that, the government urged all the provincial government authorities to ensure they have appropriate focal point for small businesses (South Africa 2003: 48). There is also evidence that there is lack of support in terms of government initiatives at a provincial level in assisting the small businesses as the small businesses have been partly neglected by the provincial government in providing crucial business support. There are also initiative provided by the Western Cape economic development and tourism and whose primary task to operationalise the micro economic development strategy and inform other provincial strategies and interfere to achieve 'Ikapa elihlumayo goals'.

In terms of awareness and assistance by government at local level, 41% respondents have knowledge of the programmes provided by the City of Cape Town Municipality to assist small business, 51.3% not aware and 7.7% are unsure. Local government have an important role to play in an effort to address poverty. In terms of library services 51.3% of respondents know about Masakhane Library Business centre in Khayelitsha, 35.9% do not know, and 12.8% unsure. The 28.2% of responses knew about Nazeema Isaac Library Business Centre, while 56.4% have no knowledge of and 15.4% do not know. Only 37. % has been assisted in terms of the libraries whilst 52.24% do not know and 10.28% are unsure. In terms of getting library assistance, 10.5% have been assisted whereas 89.5% have not been assisted. Siemes, (2010:10) noted a need to identify various policy makers that are willing to canvass for more resources that can be provided to these businesses owners. The library serves as a hub for providing information concerning various assistance to empower these business communities. Only the literate and educated few businessmen that can use the library to access business related information. It is evident that there is lack of assistance in terms of these libraries that are in Khayelitsha. Local government authorities share space with SMMEs in providing competitive opportunities that can advance into local economic development initiatives. They set up a local area development over and above the economic development of strategies (South Africa, 2003: 48). It is crucial that the local authorities and SMMEs also maintain a sound business relationships together with other institutions that are also willing to work with them.

The 66.7 % of the participants from businesses fraternity strongly agree that government should assist them in their businesses, and the 25.6% didn't agree while 7.7% were not sure. As it is stipulated in the strategic direction of the South Africa (2013), government is pursuing the vision to promote entrepreneurship, unlocking of the potential through better environment and promoting more competitive small business. In an attempt to pursuing the vision, it is understandable that there are challenges in achieving the objectives associated with the vision. This pose a challenge to the policy makers and other stakeholders need to go back to the drawing board and come up with the interventions that will create enabling environment and initiatives that will assist SMMEs development.

The study found out that these institutions that are meant to offer support and assistance to SMMEs are not easily accessible in areas where they are situated. Malefane (2011:12) posit that these institutions are allocated either in national or provincial level not on local municipalities and, therefore they are not easily accessible to the black townships for SMMEs to get government support. It is difficult for entrepreneurs who reside in Khayelitsha to travel to some centres to seek support due to lack of affordability and transport and that can also lead to a lack of cooperation between the government and small businesses.

CONCLUSIONS AND RECOMMENDATIONS

The research objective is to determine whether the SMMEs are aware of the government initiatives to effectively assist and promote SMMEs. It was found that at national level, the awareness of institutions where SMMs can get support was not enough. There is evidence that even though there are initiatives by the government to financially assist small businesses, there is still more work to be done. The SMMEs need to make more efforts to be fully aware of all the strategies and programmes in place aiming at improving their funding in order to sustain their businesses. It has emerged that education, lack of information and peer support are challenging SMMEs from receiving assistance from public sector. These facts calls for a more focused and clear roles for different organs of government, to provide more effective alignment of services that can be provided through government network, as well as the provision of resources, focusing on a broad range of programmes based on the needs of SMMEs. With regard to finance, it has been proven to be a barrier for small businesses, and this should be addressed. This correlates with the opinion of Sharpe (2013:5) who elaborates that entrepreneurs require funding and, moreover, the funding should be accompanied by training, if entrepreneurship is encouraged. The results indicate that business education and training is crucial in terms of knowing how to operate businesses.

The government should also provide local support infrastructure since the SMMEs are more visible at local level. Lastly, the study recommends that the Western Cape Provincial government should provide a One Stop Shop where all the necessary information on strategies to uplift the SMMEs can be provided. This centre can also be a point where all the small business representatives can share their experiences through their meetings. Clients, customers and other stakeholders can also meet them there for business related purposes. Ggovernment must not only commission studies to be conducted about SMMEs viability, there must also be monitoring and evaluation of the funding institutions to perform better. Additional studies maybe done in finding out more strategical opportunities for the SMMEs to position themselves for better business opportunities that can sustain their business.

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ASSESSING GUEST SATISFACTION IN HOTEL: THE CASE OF EAST LONDON HOTEL, SOUTH AFRICA.

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ABSTRACT

Quality in the service hotel industry is highly employee centered and quality experienced at the point of consumption. The hotel strategic focus is to the assessing satisfaction of guests in order to achieve. The paper is to identify related literature and cases regarding the guest satisfaction in the hospitality industry. An understanding of the differences in the applied dimensions of quality between guests and services is critical. Quality in the service hotel industry is highly employee centered and quality experienced at the point of consumption. The hotel strategic focus is to assessing of guest in order to achieve wealth maximisation of guests so that the hotel could improve al their departments services implement more strategies using the service quality tool called guest content card (GCC).Management intervention of a hotel implement strategies to achieve quality satisfaction. Grading of a hotel establishment will assist a hotel in becoming a market leader. The aim of this paper is to assess and gather the guest satisfaction and of the hotel that could be used to improve service full service of hotel. In this study the researcher investigating the guest satisfaction in hotel in East London, South Africa. Data will be collected using GCC service quality tool. It is hoped that the finding of this study will assist the hotel to improve its services to its guest. The paper will identify related literature and cases regarding the guest satisfaction in hospitality industry. An understanding of the differences in the applied dimensions of quality between guests and services that are critical will be improved. The article will conclude with some recommendations of guest satisfaction and how they may be used in the hospitality industry.

Keywords: Service quality, quality service, customer loyalty, SERVQUAL, customer satisfaction, assessing guest satisfaction

INTRODUCTION

Service quality and guest satisfaction have a significant impact on business development. Service quality has a direct impact on guest satisfaction, and consequently increases the profit. These two concepts have been continually in the focus of managers and researchers of the field. One of the most important challenges for the managers of the hotels is the evaluation and monitoring of guest satisfaction.

For measuring guest satisfaction exist some ways, however, in accommodation services one of the most widespread ways is the guest comment cards (GCC). The GCCs are commonly used in most hotels to measure guest satisfaction. The purpose of this study is the examination of (GCCs) in hotels and evaluation of management schemes in guest satisfaction of East London hotels. In this study was used method of the applied content analysis according to Gilbert and Hornell (1998). The results of this study provide the hotel management staff, an evaluation of the current methods for measuring and managing guest satisfaction in hotels of East London.

This paper is divided into several sections. First, a brief review of main concepts of interest is provided. Next, the research methodology used for this study is presented, followed by presentation and discussion of the results. Finally, the article concludes with main research findings.

LITERATURE REVIEW

Guest satisfaction is the evaluation of a guest whether or not the quality of a service meets his expectations. Performance that falls below expectations makes guests dissatisfied (Kottler & Killer, 2006). In the hotel industry, satisfaction of guests is in terms of their satisfaction with the service of the F&B department and the customer relations developed by the hotel staff (Al Rousan, 2011; Parasuraman et al., 1985). Customer satisfaction is considered one of the most important outcomes of all marketing activities in a market-oriented firm. The obvious objective of satisfying a customer is to expand the business, to gain higher market share, and to acquire repeat and referral business, all of which lead to improved profitability (Barsky, 1992; Carev, 2008). However, the guest satisfaction concept in this model refers to judgement that depends on both good service quality and fitness of service to the needs of guests (Tse and Wilton, 1988). According to Parasuraman, guest satisfaction is the level in which expectation of a guest is met or exceeded. Carev (2008) defines service quality satisfaction based on overall consideration by a guest of the advantages of a service taking into account perceptions of what is reserved and what is given (Parasuraman et al. 1988b). Service providers should be able to understand the behaviour and needs of guests to be able to know how to satisfy them. Cheung and Law (1998) develop a new model for the measurement of hospitality SQ that incorporates performance of hotel employees in the SQ level. This new SQ for the customer satisfaction model, in turn, can be directly integrated into the hospitality TQ operation because SQ is a basic component of TQ. This new model prevails over the traditional SQ models in several areas. The model is more comprehensive. Moreover, the new model better reflects the actual SQ situation that fits the TQ concept as both TQ and staff performance aim at sustained improvement of each process, whereas the latter is directed towards continual improvement in performance.

This study is one studies on the quality of the hotel in East London, and its relationship with guest satisfaction and service quality. This study suggests a model that may be successfully applied to service quality. Furthermore, this study suggests the application of a guest satisfaction model that hotel managers may find useful. Finally there was an absence of components data to design a developed hotel management will develop and improve their service and guest satisfaction. This study is expected to help F&B departments and management of hotel to develop and improve their service and thus better satisfy their guests.

RESEARCH METHODOLOGY

The target population of the study consists of 3, 4 and 5 stars hotels in Albania. During the period July and August 2013, a questionnaire was distributed to 64 hotel managers, in order to determine how they distributed their GCCs (in those hotels where used) and how they processed the information gathered from them. The questionnaire is distributed by e-mail and direct interviews with hotel managers are made when it was possible. The response rate is 28%. Content analysis applied by Gilbert & Horsnell (1998) is used to assess GCCs of 5 hotels with 3, 4 and 5 stars (with 15 and 80 rooms), distributed mainly in East London.

RESULTS AND DISCUSSION

Frequency of information collection: All 18 hotels analyzed, regularly receive guests feedback and suggestions about hotel stay.

The methods of information collection: Around 72 % of the hotels in the sample use GCCs in their hotel rooms for gathering information. About 84 % of hotel managers confirm that they receive evaluations directly from contacts with guests during their stay at the hotel and all hotels endeavor to encourage guests to give their impressions of their stay at the hotel.

Around 89% of hotels report that a member of the staff is charged to monitor the evaluations of their guests in the media and social networks and about 78% of hotels have a staff member to respond in a professional manner the estimates of the guests in the media and social networks.

The rate of response: The number of completed GCCs is low. In about 45 % of hotels that use GCCs, the response rate (number of completed GCCs) is 7-12%, while in 33% of them the response rate is about 40% and in 22% the response level is above 60%.

Method of sampling: In all hotels, GCCs is distributed to all their guests.

GCCs distribution process: About 66% of hotels distribute their GCCs through staff cleaning rooms and in 78% of hotels the data analysis is conducted from the manager/board of directors. In 22% of hotels, the GCCs are distributed in the hotel reception.

Staff: All hotel staff is well-trained for the process of measuring customer satisfaction, but only in 45% of hotels the staff is rewarded for good work and only 22% of hotels rewards is made according to a predetermined scheme.

Analysis of results: In 72% of the hotels, the analysis of the assessments tests is made periodically (once a month) and the rest evaluations is done continuously.

Handling Complaints: In the case of any complaint is done by a client, the hotel manager immediately fix the problem and asks forgiveness to the client.

The design method of GCCs: In all hotels of the sample, GCCs are designed according to personal opinion of manager relying on other hotels practices and his experience.

Surveying time (receiving customer evaluations): In all hotels, GCCs are distributed during the stay of the guests in the hotel, and only in 4 hotels of the sample the evaluations are taken in

Accessing GCCs: About 78% of hotels place the GCCs in the desk of the hotel room and 22% in the hotel reception.

Foreign Languages: In all hotels, the GCCs are in English language.

A letter with a special request: Previous studies recommend writing a special letter to the guests. However this study shows that managers do not use this particular technique to motivate guests but on the other hand all hotels report that encourage guests to give their impressions directly and even write their online reviews.

Return completed GCCs: the completed GCCs can be delivered in reception or left to the hotel room. About 77% of hotels declare that GCCs are collected in the hotel reception.

Reasons why GCCs are not used: About 34% of analyzed hotels, do not use GCCs to measure customer satisfaction. The managers of these hotels identify several reasons among which we can mention: GCCs are not filled by the guests, the hotels do not want to disturb guests with GCCs, and hotels do not consider GCCs a valid practice.

The results of applying the content analysis according to the best practices criteria for GCCs are presented below.

Number of questions: Models of GCCs that are considered have a number of questions ranging from 10 to 30 questions. Around 66% of hotels apply up to 20 questions. (Gilbert & Horsnell, 1998) have recommended that GCCs must contain 40 to 60 questions in order to obtain information necessary for decision making. So it can be stated that the considered models of GCCs do not contain enough questions to provide relevant information to managers and board of directors of the hotel.

Number of offered intangible and tangible attributes: The analyzed GCCs indicate that most of the questions are oriented toward the intangible services performance offered at the hotel. This conclusion goes well with the results of a study of Su (2004) and Gilbert & Horsnell (1998).

Establishment of independent indicators together in one attribute: The design of composite questions seeking information about the problems at the same time may cause uncertainty in question and the wrong interpretation of the response. In three of the GCCs two questions resulting composite, which are primarily used to assess intangible services such as friendship and staff efficiency, quality and diversity of food, etc.

A direct or indirect measure for overall satisfaction and a measure of customer loyalty: About 44% of GCCs contain a direct or indirect question about overall satisfaction of customers and around 66% of GCCs contain a question about loyalty. Gilbert and Horsnell (1998) and Su (2004) have determined that the GCCs assessment of loyalty is more common than the assessment of overall satisfaction. Such a conclusion goes well with our analysis, but although other studies show that guest satisfaction does not bring necessarily retaining guest and vice versa customers loyalty comes not necessarily from their overall satisfaction with hotel services.

Marketing measures: GCCs are a good opportunity to get information for clients and for marketing purposes. About 83 % of GCCs containing questions about the purpose of visit, room number and date of stay, but none of GCCs does not contain demographic questions such as gender, income, education, and other experiences in the same area, etc.

Testing of the effectiveness of marketing channels: Around 72% of the GCCs include questions in order to assess the effectiveness of marketing channels. Such questions generally have the following form: "How did you find out about our hotel?"

Questions about the competition: None of GCCs includes questions about competitors and the same conclusion is obtained also by Gilbert and Horsnell (1998) and Su (2004).

Introduction sentences: Introduction sentences are used to thank the guests for choosing the hotel and to show the importance of guests impressions in improving the quality of hotel services. All the analyzed hotels contained introduction sentences.

Instructions showing where to put the completed GCCs: All hotels in the sample contain instructions for guests where they can leave the completed cards.

Indicate the name of the member of the hotel staff: Around 89% of GCCs require information about the name of the employee who has left a special impression to guests, and only 11% of GCCs ask for the name of the employee who does not leave a good impression.

Assessment of the value of service: About 66% of GCCs require an assessment about the offered price to service quality ratio.

Customer expectations: Around 44% of GCCs contain questions about customer expectations, but none of GCCs assess customer satisfaction and quality of service compared with expectations.

Assessment of some key attributes of hotel services: All analyzed GCCs require evaluation for hotel rooms, cleanliness, comfort and facility. About 73% contain questions about the restaurant, the quality and diversity of food, while 89 % of GCCs contain questions for the staff, how friendly and helpful they are; and 78 % contain questions to assess the reception.

CONCLUSION

In this study has been made an attempt to analyze customer satisfaction evaluation in East London hotels. Results of the study show that all analyzed hotels evaluate customer satisfaction as a key factor for success and sustainable development of their business, in 72% of the hotels are analyzed the GCCs used for this purpose. Through GCCs information is collected to understand guest needs, opinions and comments about the hotel stay experience and perception of quality of service provided.

About 84% of hotel managers take impressions from direct contacts with guests which can be explained by the fact that in the current development conditions of the hotel business in East London dominate small hotels to level 3 and 4 stars with the average number of 20 rooms, but this does not justify the failure to exclude other means such as GCCs. According to study results, in most hotels, GCCs are placed in hotel rooms and in several hotels GCCs are also placed in the hotel reception, but it is noticed that the rate of response (fill in GCCs) is low. Consequently should reconsider the way of distribution GCCs by sending email to guests after they have checked out the hotel, as well as making efforts to offer ways encouraging guests to complete the GCCs.

Besides measuring customer satisfaction, other studies in the future may focus on identifying crucial performance indicators of employees. With an understanding of which employee groups performances are necessary to a positive guest assessment hotel managers will develop and implement strategies to provide an overall best evaluation of the quality of service.

It is recommended that the hotel business in East London to review the evaluation methods of customer satisfaction and service quality in order to be in compliance with all the best practices identified so far. It is clear that new forms must be found to motivate more customers and GCCs must be designed in order to fit with models that suggest scientific studies and best practices. Valid information and reliable data will enable hotel managers to make appropriate decisions about the quality of services that hotels offer.

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