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Hengameh Hosseini

MISSISSIPPI'S DELTA REGION: BORROWING A NOVEL RURAL-BASED HEALTH HOUSES SYSTEM

Abstract: Recently, health officials in the state of Mississippi, the nation's poorest state and leader in ailments including diabetes and heart disease, decided to adopt the "health houses" healthcare model developed in Iran in the poverty-stricken Mississippi Delta region. These officials point to the success of the system in Iran, which in pre-1979 rural areas resembled Mississippi Delta region both economically and in terms of health outcomes. In this paper, we will discuss the pre- and post-1979 healthcare systems in Iran; the tremendous impact of Iran's health houses system on closing the country's rural-urban healthcare gap; and Mississippi's motivations in adapting the rurally-created health houses system to its Delta region. Finally, we discuss multiple health organization partnerships that have formed to increase awareness and healthcare access for residents of the underserved Mississippi Delta region.

Ondrej Zizlavsky

INNOVATION SCORECARD: CONCEPTUAL FRAMEWORK OF INNOVATION MANAGEMENT CONTROL SYSTEM

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Abstract: The paper proposes on the basis of literature review and empirical research an original management control system approach to assessment of innovation performance on a micro-level suitable for Czech business environment, called the Innovation Scorecard. Since only few recent studies provide an attempt to develop a balanced framework for innovation, the core of this conceptual framework is based specifically on project management, Balanced Scorecard, input-process-output-outcomes model and Stage Gate approach. First, the impact of innovation on corporate performance is highlighted. Then current situation in the field of innovation performance measurement and management control in the Czech manufacturing industry is presented. Initial research hypotheses are tested based on these results as well. Thereafter the basic structure of the Innovation Scorecard is presented and its phases are discussed. In addition, the Innovation Scorecard framework provides a set of inspiration metrics to choose from or be inspired by.

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Abstract: This article stems from a longitudinal research project over twenty years. The influence of 'Big Data' on the HR practitioner's roles, goals and activities is huge in adding value to the organisation. HRM could increase its value add in more functions and areas of HR as well as the strategic influence within the organisation, by delivering predictive analytics. HR practitioners in New Zealand have been exposed to big data and the use thereof through their HRISs. The quantitative methodology adopted was an e-survey; a questionnaire containing structured closed questions. The target population was limited to 635 HRINZ members. Fundamental capabilities of the HRIS should be used to assist in delivering ultimate customer service and a good service to their employees. Recommendations are proposed for HR practitioners and managers in the use of big data such as to use analysts to analyse the big data to get useable knowledge to make wise decisions in future. Conclusions form the last section.

Bongekile Mgxaji Richard Chinomona Tinashe Chuchu

THE PREDICTORS OF BUSINESS PERFORMANCE IN THE INVESTMENT MANAGEMENT INDUSTRY

Abstract: The current study aims to investigate the influence of internal marketing, relationship quality and continuity as predictors of business performance in the investment management industry in South Africa. The tested relationships produced satisfactory results consistent with how they were hypothesised. Specifically, it appears that internal marketing has a positive impact on business performance. These results will have a beneficial outcome on investment management companies and may prompt them to align business strategies to focus more on internal customers which are the employees. Data was collected from 150 investment managers based in Cape Town and Johannesburg. Smart PLS was used to analyse the data. Relationship quality is seen to have a positive effect on business performance and seems to have an encouraging effect on their relationships that are long-term orientated. However, what is evident is that through the alignment of business strategies, it would be advised that investment management companies focus on the quality of relationships that they have with their clients, as this has a favourable result as indicated by the findings of the study. Finally, relationship continuity has a good impact, but there is no significant influence on business performance as indicated by the findings.

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EDITORIAL

A few years ago, health officials of the US state of Mississippi, the nation's poorest state and leader in ailments such as diabetes and heart disease, decided to adopt the novel rural health houses health care model developed in post-1979 Iran in the poverty- stricken Mississippi Delta region. This adaptation was caused by the success of the health houses model in post-1979 Iran, and the assumption by those health officials in Mississippi that pre-1979 rural areas of Iran resembled Mississippi Delta region both economically and in terms of health outcomes. To those health officials, Iran's successful rural health delivery could also offer solutions to the healthcare problems of rural Mississippi, which is composed of 17 agricultural counties in the flood plain of Mississippi River. To Mississippi health officials, the health houses health care system could very much help Mississippi in improving the health status of those in rural Delta region. As the paper by Hengameh Hosseini demonstrates, while pre-1979 rural Iran had little or no access to healthcare, post- 1979 Iran was successful, being successful in closing the gap in very large healthcare disparities between its urban and rural areas. As Levin (2013) has stated, nearly 23 million Iranians living in its 65,000 rural villages have found access to healthcare since the implementation of the health houses model. This explains why in 2006 the World Health Organization (WHO) reported that Iran's "health indicators... show a consider improvement and now near those for developed countries".

Before 1979, Iran had developed a relatively successful curative healthcare system. However, that health system was restricted to its capital Tehran and other major cities, and absent in small towns, and especially in 65,000 small rural villages. During the 1970's, Iran had between 12 and 14 physicians, the majority practicing in Tehran and other major cities; inhabitants of small towns had very limited access to those physicians and residents of small villages had virtually no access to those physicians. This explains why, Iran's infant mortality rate was 120 per 1000 live births in 1974 (being only 14 in 2013). After 1979, policy makers in Iran decided to create a primary care –based health system that would provide the poor and those living in rural villages with access to primary healthcare. To do this, and to make health education and health needs consistent, the Iranian parliament voted to remove publically-owned medical, dental and other professional health education institutions form the control of the ministry of Higher Education to that of the Ministry of Health.

After 1979, Iran's healthcare reform focused on providing primary care in rural areas and reducing the gap between urban and rural areas. This post-1979 development was built on three interrelated components: health houses, local community workers, and a health information system. Since the mid- 1980's, Iran has created more than 17,000 health houses, which can be described as a basic health facility in a rural village that provides primary care to roughly 1500 persons. Because Iranian rural villages generally have fewer than 1500 residents, a typical health house provides healthcare to one main village and one or more satellite villages. To guarantee ease of access by villages with even no means of transportation, the distance between the main village and each of its satellite villages is restricted to a distance that should not exceed one hour of walking.

Each of those health houses is staffed by one or more female and one male community workers (behavarz) who reside in the village in which they are to be stationed. All health workers receive specialized training in order to serve as frontline providers. While female providers are responsible for services provided inside the health house, the male behavarz is responsible for services provided outside the health house. The focus of their work is preventive care. Recognizing that Iran is multi lingual, health workers tend to be matched to a specific village of their own ethnolinguistic background. This matching helps to engender trust and to facilitate communication between health workers and the patients for whom they care.

The activities of several health houses and their health workers are supervised by Rural Health Centers (RHC), each of which being staffed by a physician and several other health professionals. As of 2013, each RHC served a population of 4,000. The RHCs accept and address the cases referred to them by health houses in their district, and also maintain proper contract with higher-ups in the Iranian health system. The RHCs are also responsible for conducting basic laboratory test, helping to train health workers for health houses and several other activities. RHCs are supervised by District Health Centers (DHCs), which represent the highest level in the ladder of the rural health system in Iran, each one being connected to a district hospital. In 2004, Iranian health leaders also stablished the Family Physicians Program to cover small towns and larger villages with population less than 20,000. More recently, however, the program has also been implemented in towns with populations of up to 50,000.

EDITORIAL

Nowadays, it is not about whether to innovate or not, but how to innovate successfully (Hauschildt & Salomo, 2010). The old adage says "You cannot manage what you do not measure." Therefore, efficient and complex measurement systems are essential and crucial to the success of innovations. Many studies have been written aimed at discussing the issue and suggesting possible approaches to performance measurement, innovation and R&D management literature (e.g., Bassani et al., 2010; Chiessa & Frattini, 2009; Merschmann & Thonemann, 2011; Wingate, 2015). Despite, Adams et al. (2006) stress the absence of frameworks for innovation-management measurement indicators as well as "the relatively small number of empirical studies on measurement in practice".

The second paper by Ondrej Zizlavsky paper proposes a management control system approach to the assessment of innovation performance on a micro-level suitable for the Czech business environment called Innovation Scorecard. It specifically extends the work of Kerssens van Drongelen et al. (2000) and Pearson et al. (2000) by integrating popular innovation management frameworks, the input–process–output–outcomes model (Brown, 1996) and the Stage Gate approach (Cooper, 1998), with the Balanced Scorecard (Kaplan & Norton, 1996). In doing so, Zizlavsky's paper has the following unique outcomes: (i) key insights and tools derived from the latest academic research, consulting companies' publications and practitioners' experience; (ii) a road map to developing a management control system called Innovation Scorecard and (iii) a list of concrete innovation metrics to choose or be inspired from.

How do Czech companies actually measure their innovation performance? What metrics do Czech companies use within innovation-performance measurement system? This was examined in Czech manufacturing innovative companies. When asked whether the companies had evaluated the implemented innovation projects, the vast majority (79.38% out of 354 respondents) answered affirmatively. On the other hand, what is disquieting is the fact that this area is neglected by 20.62% of the respondents even though innovations are implemented by them. Focusing on companies that responded affirmatively to the above question (281 in total), the application of evaluation techniques respondents use within innovations to provide the information for decision-making and control was investigated. Most of the surveyed Czech companies measure the results using financial indicators (namely budget, revenues from innovation and EBITDA are the most frequently applied managerial tools in Czech innovative manufacturing companies), although the majority of managers in these companies also feel that non-financial indicators should be used to monitor the undertaken innovative efforts and projects.

Among all the performance measurement systems, the Balanced Scorecard seems most appropriate for introducing a complex system of financial and non-financial metrics for measuring innovation performance. Nonetheless the introduction of a comprehensive Balanced Scorecard system, although its philosophy is simple and logical, is too challenging for Czech SMEs – in terms of time, organization, and finance. The empirical evidence demonstrates the low adoption rate of the Balanced Scorecard. Zizlavsky therefore advises integration of selected features and indicators of the Balanced Scorecard, and creating one's own specific Innovation Scorecard that would best capture the factors and metrics of innovation activities of the individual company is suggested. The selection of the relevant indicators must be tailored to the company, as each innovation is unique, specific, and intended to bring competitive advantage and company growth.

In this study, the innovation process is divided into five distinct stages and is separated by management decision gates. This means an effective as well as an efficient approach, so that the new product can be moved from idea to launch in a systematic way. Every stage is preceded by one gate. At each stage, information is gathered to reduce project uncertainties and risks which is then evaluated at the following gate. Gates represent decision points with deliverables (what the innovation team brings to the decision point) and must-meet/should-meet criteria where the company can decide if it proceeds with the innovation project or if it is to be stopped, held or recycled. Thus gates are also referred to as "Go/No-Go check points" where a decision to invest more or not is made. At the gates below, average projects should be stopped and resources should be allocated to other promising projects. Moreover, at each gate the Innovation Scorecard framework provides a set of factors and for each factor a set of inspiration metrics to choose from or be inspired by.

Major implications relevant to academics and practitioners stem from this study. First, from a managerial viewpoint, the Innovation Scorecard may provide useful guidelines for focusing attention and expending resources during the entire innovation process. It is argued that the informed use of evaluation metrics as guideposts for increased managerial attention and the identification of problems may help management to prevent drop-and-go-errors in their innovation efforts. Managers may compare and contrast findings from this study with their own innovation practices

and, by doing so, enrich the knowledge pool upon which they draw to make well-informed decisions. Second, the research can aid practitioners, since it provides organizations with new insights and findings, which managers can translate into the context of their own companies. Specifically, companies know that with a clear innovation strategy they can be more innovative, improve innovation processes and achieve better financial results.

Social networking sites have been growing at a fast rate since the inception of Web 2.0 in 2005. These sites have been adopted by both businesses and customers and are used for various purposes such as marketing, decisionmaking, as well as service recovery. Most online social sites allow users to connect with a group of online friends, to communicate constantly with them, and to reconnect with old friends who share similar interests. The increase in number of social networking sites and their usage by businesses to attract customers has triggered a global hot stream of research especially in the travel industry. However, from the review of literature, it was noted that most of the previous studies disregarded the individual's actual use behaviour and what motivates or hinders the individual to participate in a particular social networking site. In addition, most of these previous studies were conducted in developed countries and very little is reported regarding usage of social networking sites in developing countries such as South Africa.

Information provided by the South African Social Media Landscape report shows that the use of social networking in South Africa is increasing. However, the increase is not uniform among the social networking sites. There are social networking sites such as Pinterest and Mxit South Africa that have experienced a decline in members. It therefore implies that there are reasons why people are comfortable in using certain social networking sites while uncomfortable with other social networking sites. The study by Rosemary Matikiti, Mornay Roberts-Lombard & Merry Mpinganjira adopted the Social Exchange Theory to determine the factors that motivates or hinders individuals to participate in certain social networking sites in general, as well as for specific purposes. Considering this, the aim of their study was to identify factors which motivates or hinders individuals to use some to use social networking sites when making travel arrangements.

In order to achieve the above stated aim, the study used an exploratory research design that was quantitative in nature. The target population was individuals who have used a social networking site to make travel arrangements and who reside in the Gauteng province of South Africa. The questionnaires were administered by trained field workers and a total of 330 questionnaires were completed. After screening, a total of 325 questionnaires were retained for analysis. SPSS version 22 was used to analyse the captured and edited data, The Cronbach alpha test was used to assess the reliability of the scales and Structural Equation Modelling (SEM), through the application of partial least squares, was used to test the hypotheses.

The results of Matikiti, Roberts-Lombard & Mpinganjira's study revealed that perceived enjoyment is the key factor that motivates individuals to use social networking sites when making travel arrangements. On the other hand, perceived risk was found to be the key factor that prevents the use of social networking sites when making travel arrangements. The results further revealed that social presence and ease of use influence perceived enjoyment when using social networking sites. Trust was also found to be an important factor that influences usage of social networking sites when making travel arrangements. Lastly, the results also confirmed that the presence of risk in social networking site use in making travel arrangements. From these findings, the study confirmed that Social Exchange Theory variables such as social presence, ease of use and perceived risk in social networking sites have an impact on the usage of social networking sites when making travel arrangements.

Therefore, the authors recommended that tourism organisations and destination managers that use social networking sites to communicate with prospective customers should introduce security features and have a privacy statement to give users a sense of security. Secondly, Social networking site-service providers ensure the sustainability of their sites by increasing the social presence features and should concentrate on increasing the usability of their sites to attract more users. Finally, it was recommended that tourism managers should always post valuable information about the type of service they offer (accommodation type, charges, amenities and services on special offer) if they want to attract more customers to their social networking websites.

In New Zealand (NZ) human resource (HR) practitioners have been exposed to Big Data and the use thereof through their human resource information systems (HRISs) in adding value in organisations to be successful. The roles and activities of both the employers and HR practitioners have changed over the years and the fourth paper by

EDITORIAL

Andries J. Du Plessis & Leon De Wet Fourie endeavours to shed more light on the use of Big Data and HRIS. 'Big Data' is used for data so large or complex that traditional data processing applications are inadequate. The term refers to the use of predictive analytics or other certain advanced methods to extract value from data, and seldom to a particular size of data set. HR practitioners should meet the challenges and expectations posed by the continuing gathering of data, the analysing of it to become information leading to knowledge and then the using of the knowledge to make wise decisions. HR practitioners manage the most valuable asset in their organisations, namely employees, in order to achieve their organisational goals and they play the leading role in providing support in designing job specifications, placing the correct advertisements, executing the selection and interviewing process, signing employment contracts with job descriptions and inducting the newly appointed employees.

A quantitative methodology was used with an e-survey; a questionnaire containing structured closed questions. The data was collected via the e-survey, which was a repeat of previous studies and therefore a very important longitudinal study. The invitation to participate went to 635 members of the Human Resource Institute of New Zealand (HRINZ). HRIS systems in the day-to-day activities of New Zealand organisations seems to get momentum. For 60.0% of the respondents, it is very important to critical for success in 2020. Organisations need to plan for the future because the reality is that strategic planning is done to ensure success in the organisation. Du Plessis and Fourie suggest that HR managers and HR practitioners should use Big Data to make wise decisions, and HRISs to improve succession planning, employee information such as attitudes / training / development of their careers and productivity / performance and manage their labour costs.

The fifth article by Bongekile Mgxaji, Richard Chinomona & Tinashe Chuchu had a special focus on the investment management sector. The findings of their study suggested strategies for investment management companies regarding how they can best capitalise on internal customers, the employees. Data was collected from 150 investment managers based in Cape Town and Johannesburg, South Africa. Structural equation modeling was utilised in which Smart PLS was adopted to analyse the data. Relationship quality was seen to have a positive effect on business performance and seems to have an encouraging effect on their relationships that are long-term orientated. However, what was evident was that through the alignment of business strategies, it would be advised that investment management companies focus on the quality of relationships that they have with their clients, as this has a favourable result as indicated by the findings of the study. Relationship continuity had a visible impact, but there was no significant influence on business performance as indicated by the findings.

Nejdet Delener, Ph.D. Editor-in-Chief

NOTE FROM THE EDITORS

As an interdisciplinary indexed journal, *The Journal of Global Business and Technology* (JGBAT) serves academicians and practitioners in the fields of global business and technology management and their related areas. JGBAT is also an appropriate outlet for manuscripts designed to be of interest, concern, and applied value to its audience of professionals and scholars.

Readers will note that our attempt to bridge the gap between theory and practice has been successful. We cannot thank our reviewers enough for having been so professional and effective in reiterating to contributors the need to provide managerial applications of their research. As is now obvious, the majority of the articles include a section on managerial implications of research. We wish to reiterate once again our sincere thanks to JGBAT reviewers for having induced contributors to answer the "so what?" question that every *Journal of Global Business and Technology* article is required to address.

Thank you for your interest in the journal and we are looking forward to receiving your submissions. For submissions guidelines and requirements, please refer to the Manuscript Guidelines at the end of this publication.

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MISSISSIPPI'S DELTA REGION: BORROWING A NOVEL RURAL-BASED HEALTH HOUSES SYSTEM

Hengameh Hosseini

ABSTRACT

Recently, health officials in the state of Mississippi, the nation's poorest state and leader in ailments including diabetes and heart disease, decided to adopt the "health houses" healthcare model developed in Iran in the poverty-stricken Mississippi Delta region. These officials point to the success of the system in Iran, which in pre-1979 rural areas resembled Mississippi Delta region both economically and in terms of health outcomes. In this paper, we will discuss the pre- and post-1979 healthcare systems in Iran; the tremendous impact of Iran's health houses system on closing the country's rural-urban healthcare gap; and Mississippi's motivations in adapting the rurally-created health houses system to its Delta region. Finally, we discuss multiple health organization partnerships that have formed to increase awareness and healthcare access for residents of the underserved Mississippi Delta region.

Keywords: Mississippi Delta Region, Health Houses, Healthcare Outcomes, Health Education, Health Facilities

INTRODUCTION

Iran has been very successful in providing healthcare to millions of its citizens after the political revolution of over three decades ago. Praising the state of post-1979 Iranian healthcare, in 2006, the World Health Organization (WHO) reported that Iran's "health indicators...show a consistent improvement and are now near those for developed countries" as they relate to education and healthcare access (World Health Organization, 2006). To appreciate the significance of the WHO report, it is important to consider that before the revolution of 1979, when Iran was transformed from monarchy to an Islamic Republic, there were tremendous disparities between care received in cities, where the healthcare system was primarily based, and in the rest of the country. The established preventative healthcare system was limited, particularly in rural areas; even in urban areas, healthcare access was limited to just a few large cities. The number of practicing physicians for its population of over 30 million inhabitants in the 1970s was a mere 14,000 – the majority of whom practiced only within a small circumference of the nation's larger cities. As a result, poor individuals living in rural areas, including nearly 65,000 villages, were forced either to travel long distances to find effective care, or to seek care from healthcare providers in a different part of the multi-lingual country, who may not have spoken their native local language (Marandi, 2009).

As the WHO statement demonstrates, Iran's healthcare has improved vastly since 1979, and the disparity has been greatly reduced. Given Iran's success in improving the healthcare of those living in its 65,000 villages, it is not unrealistic to assume that those in charge of designing Iran's rural-based healthcare system have not been unfamiliar with the Kissick Iron Triangle model of cost, quality, and access, or the Donabedian SPO model which emphasizes structure of healthcare organizations (Donabedian, 1998; Kissick, 1994).

Hengameh Hosseini Ph.D. is Assistant Professor, in Health Administration and Public Health Sciences program at the School of Public Affairs. She has a Ph.D. in Health Promotion She is also interested in globalization and global aspects of healthcare and obesity prevention. Since she received her Ph.D. in 2007, Dr. Hosseini has conducted a great deal of research applying economics and business theories, ethical theory and her knowledge of global issues to various aspects of healthcare including fall prevention, obesity and their impacts on healthcare economics and costs. She serves on the editorial board of the International Journal of Hospital Research.

In addition, the complexity of the rural health houses system suggests it was designed with healthcare management theory including concepts such as SWOT analysis in mind. But why and how has Iran's healthcare system been so successful – particularly in providing care to approximately 65,000 rural villages? As suggested by Aghajanian, Mehryar, Ahmadnia, and Kazemipour (2007), the Iranian government initiated a "strong push" in the 1980s to develop an inexpensive community-based primary healthcare (PHC), and foster the expansion of this system throughout the 1990s, for several reasons. First, according to Mehrdad (2009), the government of Iran sought to uphold Article 29 of the Constitution of the Islamic Republic of Iran, which concretely states that every Iranian has the right to enjoy the best possible health. Next, Mehrdad (2009) points to the country's Ministry of Health and Medical Education stated mandate of "designing and implementing a rational level health policy" as a motivation to invest in a novel community-wide healthcare model.

	Rural Iran	Rural Mississippi Delta
Education	Limited access to medical school or training	Limited physicians practicing in underserved areas
Physician: Patient Ratio	1:18,000	176:100,000
Population	~1500 residents per village	4,556,880 residents
Location of Healthcare	Required travel to neighboring cities	Requires travel to neighboring Counties

Table 1.	Similarities	between Pre-19	979 Revolutionar	v Iran and the	Rural Mississir	pi Delta
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As a result of Iran's success in improving the health of rural villagers that policymakers and other healthcare stakeholders in the delta region of Mississippi turned to the healthcare delivery model implemented in Iran – Health Houses Network – as a means of solving the shortfalls of its healthcare system (Martin, 2012). This paper demonstrates the successful changes in Iran's rural-based healthcare system since 1979. Next, it discusses why health leaders in Mississippi have found Iran's Health Houses Network appropriate for rural Mississippi and how the implementation of this system has impacted the current state of healthcare in the rural Mississippi Delta region.

HEALTHCARE IN PRE-1979 IRAN

Before the 1979 revolution, Iran had developed a relatively successful curative healthcare system. However, that healthcare system was restricted to Tehran and other major cities, and was absent in small towns and in particular, in 65,000 or so small villages. During the 1970s, there were between 12 and 14 thousand physicians in Iran, the majority of whom practiced in Tehran and other major cities. Because of limited transportation options and infrastructure, inhabitants of small towns had very limited access to those physicians, while the residents of over 65,000 villages had virtually no access such providers (Marandi, 2009). The tremendous deficit of access to physicians and care among large swaths of the nation's non-urban population had a markedly detrimental impact on Iran's health outcomes in the pre-1979 era. For example, Iran's infant mortality rate in 1974 was 120 per 1000 live births. According to the World Bank, this rate fell to 14.0 in 2013. In 1974, the mortality rate for children under 5 years of age was 174 per 1000, which fell to 17.0 in 2013 (The World Bank, 2014). Iran's maternal mortality rate has also improved since 1979, decreasing from 255 per 100,000 live births in 1976, to 23 per 100,000 live births in 2013 (World Health Organization, 2014). Finally, Iran's life expectancy has improved dramatically. In 1977, life expectancy in Iran was 57.44 years for women and 57.66 years for men, with a marked gap of almost ten years between those living in rural and urban regions. By 2012, life expectancy increased to 76.0 for women and 72.0 for men (World Health Organization, 2014). Given these statistics, it should not be surprising that, while before 1979, the ratio of physicians to the total population of the country as a whole was one physician for every 2,800 persons, for areas outside of Tehran there was one physician for every 4,000 persons, whereas for small towns and rural villages this figure was as low as one for every 18,000 persons (Martin, 2012).

The above-mentioned inadequacy of health services in pre-revolutionary Iran can be attributed in part to the fact that Iran's ranks of trained health professionals were limited. Before 1979, Iran only had nine schools of medicine: Three in Tehran, with the remaining six in major cities of Shiraz, Isfahan, Tabriz, Mashhad, and Ahvaz. These nine

medical schools admitted only slightly more than 1,200 students per year, with many graduates often lost to immigration to the United States and other Western countries. The insufficiency of labor was even more dire for dentists, pharmacists, nursing, and midwifes. Given Iranian physicians' and dentists' preference the conveniences of Tehran and other major cities, physicians practicing in small towns were few, and those who did establish non-urban practices were often foreigners (Martin, 2012).

IRAN'S CHANGING HEALTHCARE SYSTEM

Post-revolutionary policymakers in Iran decided to create a primary care-based healthcare system that would provide the poor and those living in rural villages with access to primary healthcare (Mehryar, 2004). An impetus for this change was Iran's reform of its system of health education. In 1985, to make health education and health needs consistent, the Iranian Parliament, or Majles, voted to remove medical, dental, and other professional health education institutions from the control of the Ministry of Higher Education, and to merge them with the facilities controlled by the Ministry of Health. This integration gave rise to the new Ministry of Health and Health Education, and at least one of what is termed a "University of Medical Sciences" in each of Iran's provinces. Initially, provincial health organizations and these new universities, while all part of a loosely organized collective, each had their own presidents and directors, functioning independently. However, by 1994, officials decided to fully integrate provincial health organizations and those new universities, which encouraged the establishment of a crop of universities of medical sciences and health services. As a result, the presidents of these universities were tasked with providing healthcare in each province, in addition to their normal administrative duties.

It is interesting to note that Iran has both public and private sector health systems. The private healthcare/insurance sector, which is largely concentrated in Tehran and other major cities, typically focuses on providing secondary and tertiary services, alongside NGOs that provide specialty care such as pediatric oncology and gynecological surgery. The public health system, which provides healthcare spanning all levels and specialties, has become the major provider of primary healthcare services to all regions of Iran. Furthermore, the public health system provides certain ancillary services such as vaccination and diagnostic imaging free of charge. Outside of Tehran and other major Iranian cities, it is the public health system that also provides secondary and tertiary health services.

IRAN'S CHANGING MEDICAL EDUCATION SYSTEM

The newly-created Ministry of Health and Medical education in Iran has a primary mission of educating and training the country's healthcare personnel (Mehrdad, 2009). This important mandate has been fulfilled through 44 public medical universities, which include more than 40 medical schools, 28 dental schools, 42 nursing and midwifery schools, 16 schools of pharmacy, 36 schools of public health, 24 paramedical schools, and eight schools of rehabilitation sciences (Ministry of Health and Medical Education, 2015). To guarantee provision of health services throughout the country, graduates of health-related public institutions are expected to serve in medically underserved areas. The obligation to serve in deprived areas applies solely to publicly-owned medical schools, because these institutions are tuition-free for students, thanks to taxpayer and government support.

THE IMPACT OF RURAL HEALTH HOUSES

During the last three decades, Iran's healthcare reform has focused on providing primary care in rural areas, with the aim of "improving access to healthcare for the disadvantaged with the intent to reduce the gap between health outcomes in urban and rural areas" (Abbaszadeh, Eskandari, & Borhani, 2013). This post-1979 development in Iran was built on the foundation of three interrelated components: Health houses, local community workers, and a health information system.

Since the mid-1980s, Iran has created at least 17,000 "health houses" – basic facilities in rural villages that provide primary care to roughly 1500 persons. Because Iranian rural villages generally have fewer than 1500

MISSISSIPPI'S DELTA REGION: BORROWING A NOVEL RURAL-BASED HEALTH HOUSES SYSTEM

residents, the average health house typically serves one village, and one or more satellite villages. As Aghajanian et al. (2007) note, villages and their satellites are chosen to be grouped together on the basis of the cultural and social compatibility of their respective residents. To guarantee ease of access by villagers with even no means of transportation, the distance between the main village and its satellite villages is restricted to a distance that should not exceed one hour of walking.

Each of those health houses is staffed by one or more female and one male "behavarz," or community health workers, who reside in the village in which they are to be stationed. All health workers receive specialized training in order to serve as frontline providers in their health houses. While the female behavarz is responsible for services provided inside the health houses such as immunization, data recording, and the provision of curative care and medication, the male behavarz is responsible for services that are provided outside the health houses. Because none of these healthcare workers are physicians, the focus of their work is necessarily primary and preventive care (Martin, 2012). Recognizing that Iran is rather diverse ethnically and linguistically, policymakers have been strategic in the selection of health house healthcare workers: The workers tend to be matched to a specific area or village of their own ethnolinguistic background. This matching helps both engender trust and facilitate communication between health workers and the patients for whom they care.

This rudimentary information-gathering system, which contains demographic and health information about villagers seeking help, is a statistical tool; a horoscope that creates a summary of the community's vital data. The health houses report the information gathered to district health centers in provinces, which, in turn, after entering them in their computers, forward them to those in charge of health planning in Tehran (Khosravi, Motlagh, & Razavi, 2009).

Provision of health services to Iranian villagers does not end with health houses. The activities of several health houses and their health workers are supervised by Rural Health Centers (RHC), each of which is staffed by a physician and one or more nurses, a disease control center, oral health and laboratory technicians, nurse aides, and administrative staff. Each of these Rural Health Centers was originally meant to serve populations of 9,000, as well as the nearest health houses in their region. However, because of increasing demand, more health centers were created, eventually expanding into more rural areas, with each RHC now serving only a population of 4,000 (Takian, Doshmangir, & Rashidian, 2013). These RHCs accept and address the cases referred to them by the health houses in their district, and also maintain proper contact with higher-ups in the Iranian health care system. Within their districts, the RHCs are also responsible for conducting basic laboratory tests, helping train health workers in health houses, conducting safety tests on foods consumed in villages, monitoring environmental health in schools and workplaces, gathering statistics, and writing reports of their health activities.

District Health Centers (DHCs), which represent the highest level in the ladder of the Iranian rural health system, are connected to a district hospital, and have many responsibilities within the Iranian healthcare system. DHCs supervise and coordinate the activities of rural health centers (RCHs) in their districts, provide health education, and track cases that need tertiary care (Martin, 2012). Additionally, behavarz training centers in each of these District Health Centers are responsible for the selection, training, and continuing health education of health workers within their own districts.

Iran's commitment to its healthcare system is ongoing, as evidenced by the country's most recent reform efforts. In response to increasing demand for healthcare services aimed at improving access and effectiveness of the healthcare sector, and inspired by Kissick's Iron Triangle and, arguably, SPO models, Iranian health leaders established the Family Physicians Program in 2004 (Kissick, 1994). Initially, the Family Physician Program covered small towns and villages with populations less than 20,000. More recently, however, the program has also been implemented in towns with populations of up to 50,000. At its inception, the program added roughly 6000 physicians and 400 midwives to the PHC network over the course of three years.

MISSISSIPPI BORROWS FROM IRAN'S HEALTH SYSTEM

As indicated by Martin (2012), health leaders in Mississippi have determined that Iran's successful rural health delivery model could also offer solutions to the healthcare problems of rural Mississippi. But why? Mississippi ranks last economically among the fifty states in the U.S. (Martin, 2012), where its poorest region is the Delta, which

is a rural region composed of 17 agricultural counties in the flood plain of the Mississippi River. Historically, the Mississippi Delta region has been considered one of the most economically deprived areas of the United States. Of the nearly 4,556,880 individuals living in the Mississippi Delta region (Housing Assistance Council, 2010), over 23 percent of households were receiving Supplemental Nutritional Assistance Program (SNAP) benefits in 2013 (United States Department of Agriculture, Food and Nutrition Service, 2013). Nearly 25% of the state's households have very limited access to healthy foods, and grocery stores are commonly up to thirty miles away from many towns in the state (Hansen, 2012). The Delta region lags significantly with respect to education as well, with only 72.9 percent of adults in the region possessing a high school diploma, compared to 80.4 percent nationwide (Delta Health Alliance, 2007). Furthermore, the unemployment rate in the region is as high as 10.5%; while in 2009, the median household income was a mere \$36,796, 28.44% below the national level leaving 21.4% of individuals in this area below the poverty line (Martin, 2012). In fact, the 2010 U.S. Census reported that 22.4% of households in the Mississippi Delta region living in poverty, an especially staggering figure when compared to the 13.8% of households below the poverty line throughout the United States, and even the 19.9% poverty rate experienced by the seven other states in the U.S. Delta region (Delta Regional Authority, 2012).

Mississippi also leads the nation in a number of important healthcare indicators. Not only does Mississippi rank first among all states in terms of heart diseases, but 11.1% of Mississippians also suffer from diabetes, compared to 7.8% of all Americans (Martin, 2012). In addition, 69% of adults in the state are considered overweight or obese (Hansen, 2012). In the Mississippi Delta region alone, a census from 2008 revealed that 71.1% of residents were overweight or obese (Anderson & Evans, 2008). Furthermore, notwithstanding the impact of the 2010 Affordable Care Act (note that the implementation of the borrowed Iranian rural health system preceded the signing of the ACA in 2010 by President Obama), access to healthcare in Mississippi has been gravely inadequate, especially for those in rural regions. Not unlike pre-1979 Iran, health care professional distribution is not equitable. Martin (2012) further mentions that a lack of preventative services and resources for primary care lead to hospitalizations that could have been prevented, overall. Out of three million state residents, nearly 550,000 are uninsured. The 2010 U.S. Census revealed 20.2% of Mississippi Delta residents over 65 years of age are living without health insurance (Delta Regional Authority, 2012).

Out-of-pocket expenses account for the largest barrier to access to health care in the Delta region (Anderson & Evans, 2008). Furthermore, many Delta-area hospital emergency rooms treat patients who cannot pay for services. Hansen (2012) states that at the University of Mississippi Medical Center, 14 percent of patients lack insurance and can only pay a fraction of their bills to the hospital, which can only recover a minimal percentage of their fees owed. Complicating matters is the fact that even if the state were to accept additional Medicaid from the federal government, there are too few doctors practicing in the state to treat all of the patients in need of care (Hansen, 2012). Currently, the state has 176 doctors per 100,000 people, the lowest ratio within the United States, and one similar to pre-1979 Iran. The majority of residents in the Delta region stated that availability of care was concerning, and many individuals travelled to a neighboring county for health are with better availability and quality of care (Anderson & Evans, 2008). Because of the above similarities between pre-1979 rural Iran and the Mississippi Delta, summarized in Table 1, Mississippi health officials became convinced that the Iranian rural model is well-suited to Mississippi (Martin, 2012). It is because of these problems that various health professionals in Mississippi have been open to importing the Iranian health houses model to Mississippi (Martin, 2012).

Martin (2012) cites a Mississippi health consultant who stated that the health houses model appeared "to be a good opportunity to...alleviate some of the problems we have been facing in the Mississippi Delta..." Martin also quotes a Mississippi pediatrician who states: "because we have similar problems that the model helped to address in Iran... We thought that it is an appropriate model to have. We hope it will have some kind of impact in our areas..." The decision by Mississippi officials to borrow the Iranian model for its Delta region was made after much thought and deliberation. Among the models studied by Mississippi health officials, the Iranian PHC network appealed for many reasons including its cost efficiency, the fact that the model was exceptionally well-suited to remedying dire primary care shortages, and the fact that the network could empower local communities by giving them a say and a hand in their own healthcare.

Mississippi health officials could have considered other models after which to fashion the state's health delivery system. One logical alternative is the Donabedian Model, according to which information about quality of care originates from the three categories of structure, process, and outcomes. The Donabedian Model could be applied to diverse health structures, of which the health outcomes are dependent on the efficacy of health care delivered to the

individual (Donabedian, 1998). However, the Donabedian model falls short in that it excludes economic and social factors related to the individual, or those outside of the health care delivery system (McDonald et al., 2007). This model could also benefit those living in urban areas where an effective healthcare system is accessible. However, the economic factors and needs of individuals in the rural areas of the Mississippi Delta fall outside of the perimeter of this healthcare model.

Another model that could possibly serve as an alternative to the health houses model is the PCMH (the Patient-Centered Medical Home) model, which describes physician-led practice, with whole-person orientation that focuses on quality and safety and is committed to enhancing access to care. Given that the PCMH Model is primarily care physician-based, and that there exists a serious shortage of primary care physicians – especially in the Mississippi Delta region –health officials in Mississippi would likely have struggled to implement this model. In contrast, the Iranian health houses model accommodates specific rural/poorer areas in need. Rather than improving upon a healthcare delivery system that is already available, such as that used in urban areas, the Iranian model focuses on implementing an effective health care delivery system where there was not one present before. It brings a coordinated healthcare system to the individual, rather than attempting to find new ways to bring the individual to the available healthcare. Thus, in 2006, after much networking and planning, the Delta Health Association implemented Project #13 of the Delta Health Initiative: HealthConnect. Aaron Shirley, James Miller and Mohammad Shahbazi of Jackson State University undertook the implementation the Iranian health houses model of healthcare in the Mississippi Delta region under the umbrella of HealthConnect (Evans, 2009).

After the first wave of efforts to implement the health houses model, moving forward with the health houses model more expansively in Mississippi has proven somewhat difficult. Not only were the founders met with reluctance within their community in proposing collaboration with Iran on healthcare reform, but the project was also best by an initial lack of funding. Also, while the founders of HealthConnect have set up facilities in former school buildings in the Delta region, moving operations out of these buildings, or setting up in other locations, has proven troublesome. According to one of project's founders, out that the majority of federal and state grants are used for research rather than the application of a solution, such as those faced by HealthConnect (Martin, 2012). So far, the only outside source of money the project has received has been from insurance companies that have managed to profit from their overall expenditures. Furthermore, policymakers are attempting to integrate this new and effective health houses model into the already ineffective American health care system, rather than create a separate entity, which limits their ability to faithfully replicate the model. Also, the two models are culturally different. The health houses model adheres to collectivist values, and fosters an environment where health care workers may be involved with a family's well-being beginning from the birth of a child. This greatly clashes with America's historical values of independence and self-reliance. Finally, as Mississippi as a whole has a shortage of healthcare providers, nonexistent external funding also causes a barrier to covering the costs of community health workers' training (Martin, 2012 & Levine, 2013). If the correct funding could be procured, and the right strategies implemented, by providing adequate in-home health care, education, and assistance, it is thought that HealthConnect could cut the readmission rates to hospitals, such as the Central Mississippi Medical Center, by 15% in the near future (Hansen, 2012).

In order to solve the low physician/patient ratio in the Mississippi Delta region, the Delta Health Alliance is further collaborating with University of Mississippi Medical Center School of Medicine to provide scholarships for future healthcare physicians. The scholarship program is designed to encourage future physicians to seek careers in the Mississippi Delta region. The program places fourth-year doctoral students into a primary care setting in medically underserved areas in the region. So far, 53 students have completed their medical rotations through the program, and nearly 95% have reported serious consideration for a career in this setting (Delta Health Alliance, 2012). In addition, the Community Health Worker (CHW) program was initiated in order to improve clinical outcomes for patients in the Delta region diagnosed with illnesses such diabetes and heart disease. The program provides healthcare workers, who are residents of the community they are aiding, to provide county residents with health education and healthcare assistance (Mississippi State Department of Health, 2012). This program represents a direct implementation of the Iranian Health Houses Network in the Mississippi Delta region. Currently, 13 of the 18 Delta counties are participating in this initiative. By generating a certification program to become a CHW, the Central Mississippi Area Health Education Program is creating professional recognition as a CHW, thus reigning in future recognition and financial contributions to keep the HealthConnect program moving forward.

In addition, the Central Mississippi Medical Center (CMMC) is one of the first hospitals to partner with HealthConnect (Merit Health Central, 2012). After discharge, HealthConnect covers all of a patient's needs in the

community, which, according to medical professionals at the hospital, is a much-needed support resource for an individual's recovery. Some of the main services that HealthConnect provides at this hospital include: A review with the patient of what he or she will need after discharge; a home visit from a nurse; assistance with social service applications, if required; and determining eligibility for discounted and donated medicine (Merit Health Central, 2012).

CONCLUSION

As we demonstrate in this paper, Iran has experienced phenomenal growth and improvement in the quality, reach, and consistency of its healthcare system since the early 1980s. During the intervening three decades, Iran has been especially successful in closing the gap in healthcare disparities between its urban and rural areas. Levine (2013) points out that nearly 23 million Iranians in rural areas have access to healthcare since the implementation of the health houses model. In addition, the disparity in healthcare services between rural and urban areas in Iran has narrowed. This success is largely attributable to the creation of the health houses and the tremendous efforts of Iran's health house workers with roots in the rural regions of the country. As stated above, the complexity of the rural healthcare system created in Iran during the 1980s suggests that those responsible for the rural health houses system concepts such as SWOT analysis in mind. It was Iran's success in improving the health situation of the residents of its 65,000 rural villages, and the similarities of the recent health and economic status of rural Mississippi to that of pre-1979 Iran, that helped convince health leaders in Mississippi that the Health Houses Network established in Iran was suitable for adoption in the Mississippi Delta rural region.

While policymakers were devoted to establishing the health houses network in Iran, the system's implementation in the Mississippi Delta region has been carried out solely by private institutions, such as Jackson State University. Without the support from policymakers in Mississippi, the implementation of Iran's successful health care protocol could have been severely hindered. However, multiple partnerships, such as those with Project Hope and CMMC, were formed in order to increase recognition of healthcare disparity in the region, and to promote improved healthcare access across multiple platforms (Project Hope, 2011, & Merit Health Central, 2012). Currently, 13 counties in the Delta region are participating in this healthcare initiative, and various medical professionals involved in this effort have lauded the many benefits of the HealthConnect Program (Project Hope, 2011, & Merit Health Central, 2012). It is evident that this program has offered, and promises to offer, many benefits to the region, as it did in Iranian villages. Already, the regions implementing this system have seen hospital readmissions begin to decrease; hopefully, large-scale improvements in the region's health status will follow (Merit Health Central, 2012).

In a larger sense, the drive to adopt the Iranian system by Mississippi practitioners and policymakers, and the successes of the system to date, suggests that looking to unconventional sources for healthcare design – including countries not commonly thought of as model healthcare systems by Western nations – for inspiration could be a fruitful endeavor. When existing framework and scaffolding of a healthcare system fail to support the burdensome complexities of regions like the Mississippi Delta region, US health officials and practitioners should perhaps be more ready to embrace the transfer of knowledge "uncommon" sources outside of organs of the existing system. Though the healthcare system has traditionally been slow to embrace change, this work suggests that US policymakers should look to ways to facilitate experimentation within mini- satellite systems – relatively isolated spheres such as health houses that are independent from established care networks and systems, in which practices may be allowed to deviate reasonably from the norm. Encouraging such mini-systems could foster more audacious and rapid innovation and test unconventional setups having the potential to meet the needs of exceptional populations and regions like that of the Mississippi Delta, which are being failed by systems already in place.

REFERENCES

Abbaszadeh, A., Eskandari, M., & Borhani, F. (2013). Changing the care process: A new concept in Iranian rural health care. *Asian Nursing Research*, March 2013, http://dx.doi.org.ezaccess.libraries.psu.edu/10.1016/j.anr.2013.01.004.

- Aghajanian, A., Mehryar, A. H., Ahmadnia, S., & Kazemipour, S. (2007). Impact of rural health development programme in the Islamic Republic of Iran on rural-urban disparities in health indicators. *Eastern Mediterranean Health Journal*, November 2007.
- Anderson, B., & Evans, G. (2008). Delta health survey: Mississippi State University department of agricultural economics AEC information report HSCS-1 and HSCS-8. *Mississippi State University Extension Service*, 2008: Retrieved November 1, 2015, from: http://msucares.com/crd/healthconnect/dhi/surveys/bolivar.pdf.
- Delta Health Alliance (2007). Demographics: Demographics and health statistics of Mississippi Delta service area, Stoneville. Retrieved July 1, 2016, from: http://www.deltahealthalliance.org/aboutdha/overview/demographics/.
- Delta Health Alliance (2012). *The rural health scholars program, Stoneville*. Retrieved June 20, 2016, from: http://www.deltahealthalliance.org/project/the-rural-health-scholars-program/.
- Delta Regional Authority (2012). *Today's Delta*. Retrieved June 30, 2016, from: http://dra.gov/images/uploads/content_files/web_DRA_TodaysDelta.pdf.
- Donabedian, A. (1998). The quality of care: How can it be measured? JAMA, 121(11).
- Evans, G. (2009). Health care in the Mississippi Delta: Impacts, perceptions and resources. *Department of Agricultural Economics, Mississippi State University*, 2009. Retrieved July 1, 2016, from: http://msucares.com/crd/healthconnect/dhi/finalreport.pdf.
- Hansen, S. (2012). What can Mississippi learn from Iran? *The New York Times*. July 27, 2012. Retrieved July 1, 2016, from: http://www.nytimes.com/2012/07/29/magazine/what-can-mississippis-health-care-system-learnfrom-iran.html.
- Housing Assistance Council (2010). Lower Mississippi Delta. Retrieved July 1, 2016, from: http://www.ruralhome.org/storage/documents/ts2010/ts-report/ts10_ms_delta.pdf.
- Khosravi, A., Motlagh, M., & Razavi, S. E. (2009). The Iranian vital horoscope; appropriate tool to collect health statistics in rural areas. *Iranian Journal of Public Health*, 38.
- Kissick, W. (1994). *Medical dilemmas: Infinite needs versus finite resources*. New Haven/London: Yale University Press.
- Levine, D. (2013). Can Iran's health-house model help Mississippi reduce disparities? *Governing*, February 2013. Retrieved July 1, 2016, from: http://www.governing.com/topics/health-human-services/gov-iran-health-house-model-helps-mississippi-reduce-disparities.html.
- Marandi, S.A. (2009). The integration of medical education and health care services in the I.R. of Iran and its health impacts. *Iranian Journal of Public Health*, 2009. Retrieved July 1, 2016, from: http://www.dhpescu.org/media/elip/13321.pdf
- Martin, S. (2012). Exploring the health houses network: Iran and Mississippi A cross-sectional qualitative study. *ProQuest Dissertations Publishing*. 2012. Retrieved June 30, 2016, from: http://search.proquest.com.ezaccess.libraries.psu.edu/docview/1022639457.
- McDonald K.M., Sundaram, V., Bravata, D.M., Lewis, R., Lin, N., Kraft, S.A., McKinnon, M., Paguntalan, H., Owens, D.K. (2007). Closing the quality gap: A critical analysis of quality improvement strategies. *Agency* for Healthcare Research and Quality, 7.
- Mehrdad, R. (2009). Health systems in Iran. *Japan Medical Association Journal*, 2009. Retrieved May 1, 2016, from: http://www.med.or.jp/english/pdf/2009_01/069_073.pdf.
- Mehryar, A. (2004). Primary health care and the rural poor in the Islamic Republic of Iran. Scaling Up Poverty Reduction: A Global Learning Process and Conference, May 2004. Shanghai.
- Merit Health Central (2012). HealthConnect and CMMC partner to help patients return, remain at home. Retrieved from July 1, 2016 from: http://www.merithealthcentral.com/about/news/healthconnect-cmmc-help-patients-return-remain-home.
- Ministry of Health and Medical Education (2015). *Health sector evolution program*. Retrieved from: http://tahavol.behdasht.gov.ir/index.aspx.
- Mississippi State Department of Health (2012). *MDHC clinical initiatives: Community health workers*. Retrieved July 1, 2016, from: http://msdh.ms.gov/msdhsite/_static/44,0,372,593.html#workers.
- Project Hope (2011). Collaborating to improve health care in the Mississippi Delta: Project HOPE and Delta Health Alliance. Retrieved May 1, 2016, from: http://www.projecthope.org/news-blogs/pressreleases/2011/collaborating-to-improve.html.
- Takian, A., Doshmangir, L., & Rashidian, A. (2013). Implementing family physician programme in rural Iran: Exploring the role of an existing primary health care network. *Family Practice*, 2013. Retrieved May 20, 2016, from: http://fampra.oxfordjournals.org/content/30/5/551.long.

- The World Bank (2014). World Development Indicators: Mortality. Retrieved June 20, 2016, from: http://wdi.worldbank.org/table/2.21.
- United States Department of Agriculture, Food and Nutrition Service. (2013). *Characteristics of SNAP Households, Mississippi Congressional District* 2. Retrieved July 1, 2016, from: http://www.fns.usda.gov/sites/default/files/ops/ Mississippi_2.pdf.
- World Health Organization (2006). *Health Systems Profile: Islamic Republic of Iran*. Retrieved from http://apps.who.int/medicinedocs/documents/s17294e/s17294e.pdf.
- World Health Organization (2014). World Health Statistics 2014. Retrieved May 1, 2016, from http://apps.who.int/iris/bitstream/10665/112738/1/9789240692671_eng.pdf?ua=1.

INNOVATION SCORECARD: CONCEPTUAL FRAMEWORK OF INNOVATION MANAGEMENT CONTROL SYSTEM

Ondrej Zizlavsky

ABSTRACT

The paper proposes on the basis of literature review and empirical research an original management control system approach to assessment of innovation performance on a micro-level suitable for Czech business environment, called the Innovation Scorecard. Since only few recent studies provide an attempt to develop a balanced framework for innovation, the core of this conceptual framework is based specifically on project management, Balanced Scorecard, input-process-output-outcomes model and Stage Gate approach. First, the impact of innovation on corporate performance is highlighted. Then current situation in the field of innovation performance measurement and management control in the Czech manufacturing industry is presented. Initial research hypotheses are tested based on these results as well. Thereafter the basic structure of the Innovation Scorecard is presented and its phases are discussed. In addition, the Innovation Scorecard framework provides a set of inspiration metrics to choose from or be inspired by.

Keywords: Innovation, Performance Measurement System, Management Control, Innovation Scorecard

INTRODUCTION

Innovation contributes to the winning of competitive advantages. Successfully launching innovation onto the market is one of the basic preconditions for the long-term survival of a company. Substantial evidence exists that the innovation process and resulting innovation outputs are important determinants of company performance, indicating that innovators outperform non-innovating companies (Baldwin and Gellatly, 2003; Calabrese et al., 2013; Mansury and Love, 2008; Prajogo, 2006). The professional literature provides the following impacts of innovation on company performance:

- Positive correlation (dos Santos Ferreira and Cardoso, 2014; Gronum et al., 2012; Markatous and Stournaras, 2013; Rosenbusch et al., 2011; Zizlavsky and Karas, 2014).
- Negative correlation (Danneels and Kleinschmidt, 2001; Min et al., 2006; Vermeulen et al., 2005).
- U-shaped correlation (Avlonitis et al., 2001; Li & Atuahene-Gima, 2001).
- No clear correlation (Henard & Szymanski, 2001).

Nowadays, it is not about whether to innovate or not, but how to innovate successfully (Hauschildt and Salomo, 2010). The old adage says "You cannot manage what you do not measure." Therefore, efficient and complex measurement systems are essential and crucial to the success of innovations. Measuring the performance and contribution to value of innovation has become a fundamental concern for managers and executives in recent decades

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(Kerssen-van Drongelen and Bilderbeek, 1999). Many studies have been written aimed at discussing the issue and suggesting possible approaches to performance measurement, innovation and R&D management literature (e.g. Bassani et al., 2010; Chiessa and Frattini, 2009; Merschmann and Thonemann, 2011; Wingate, 2015). Despite, Adams et al. (2006) stress the absence of frameworks for innovation management measurement indicators as well as "the relatively small number of empirical studies on measurement in practice".

This paper continues research activities and publications (Zizlavsky, 2013; 2015; Zizlavsky and Karas, 2014) and thereby closes long-term empirical research carried out in Czech manufacturing industry in 2009–2015. The purpose of the paper is to propose on the basis of desk research and empirical study a management control system approach to the assessment of innovation performance on a micro-level suitable for the Czech business environment – called Innovation Scorecard. It specifically extends the work of Kerssens van Drongelen et al. (2000) and Pearson et al. (2000) by integrating popular innovation management frameworks, the input–process–output–outcomes model (Brown, 1996) and the Stage Gate approach (Cooper, 1998), with the Balanced Scorecard (Kaplan and Norton, 1996a).

In doing so, paper has the following unique outcomes: (i) key insights and tools derived from the latest academic research, consulting companies' publications and practitioners' experience; (ii) a road map to developing a management control system called Innovation Scorecard and (iii) a list of concrete innovation metrics to choose or be inspired from.

LITERATURE REVIEW

What criteria should be selected for a IPMS? Werner and Souder (1997) reviewed the literature from 1956 to 1995 on techniques for measuring innovation performance. They concluded that integrated metrics that combine several types of quantitative and qualitative measures which are the most complex and costly to develop and use are the most effective. They viewed the choice of innovation measurement metric to be based on needs for comprehensiveness of measurement, the type of innovations being measured, the life stage of an innovation effort, the available data and the perceived information cost/benefit. Schumann et al. (1995) proposed a quality-based approach to innovation performance measurement that viewed innovation as a process. Their framework encompassed people, process, outputs and consequences linked to a market-driven objective.

The pioneering proposal put forward by Kerssens van Drongelen and Cook (1997) is based on the argument that all the output measurements utilized in the literature and in practice can be placed under one or several of the following five high level parameters: (i) cost (efficiency), (ii) quality, (iii) time, (iv) innovatory capacity, and (v) contribution to profits, and that these high level parameters can in turn be aligned with the stages of Innovation Scorecard. Quality corresponds to the perspective of the customer, cost (efficiency) and time to the perspective of the internal processes, innovatory capacity to the perspective of learning and growth, and contribution to profits to the perspective of financial results.

A study by Hart et al. (2003) examines the evaluation criteria which are used most frequently by different manufacturing companies in the UK and the Netherlands. They selected 20 evaluative criteria. These criteria were allocated to four dimensions: (i) market acceptance (e.g. customer acceptance, customer satisfaction, revenue growth and market share), (ii) financial performance (e.g. break-even time, margin goals and profitability goals), (iii) product performance (e.g. development cost, launched on time and product performance) and (iv) additional indicators (e.g. technical feasibility and intuition).

METHODOLOGY OF INNOVATION SCORECARD DESIGN

The starting point is an analysis of the state of the art of performance measurement and management control techniques in order to devise the framework proposed for the innovation process. This has been done by means of a review of the bibliography and by discussion with academics experienced in innovation management. With this approach obtaining a very high degree of consensus on the best way to measure each of the variables included in each dimension of proposed Innovation Scorecard is expected.

INNOVATION SCORECARD: CONCEPTUAL FRAMEWORK OF INNOVATION MANAGEMENT CONTROL SYSTEM

Various authors have discussed the design of performance measurement systems (PMS) (e.g. Azzone et al., 1991; Dixon et al., 1990; Goold, 1991; Kaplan and Norton, 1993; Lynch and Cross, 1991; Maskel, 1991; Neely et al., 1996a). Authors such as Maskell (1991) or latter Bourne et al. (2003) offer the following principles of PMS design (see Table 1). Therefore, the concept of performance measurement used in this study refers to the use of a multi-dimensional set of performance measures for the planning and management of a business.

PMS Design Process

In the performance measurement literature, a wide range of performance measurement design processes is described (e.g. Azzone et al., 1991; Kaplan and Norton, 1993; Neely et al., 2000; Wisner and Fawcett, 1991). These processes have been developed both jointly and severally, from theory and practice, by both academics and practitioners. Some have remained as theoretical models whereas others have been extensively tried and tested through application in commerce and industry. To develop a PMS, Neely et al., (1996, p. 425) suggest the following procedure:

	Table 1. Principles for PMS design
	The measures should be directly related to the company's manufacturing strategy.
Maskell	Non-financial measures should be adopted.
	It should be recognized that measures vary between locations – one measure is not suitable for all
	departments or sites.
	It should be acknowledged that measures change as circumstances do.
(1))1)	The measures should be simple and easy to use.
	The measures should provide fast feedback.
	The measures should be designed so that they stimulate continuous improvement rather than
	simply monitor.
	Performance measurement refers to the use of a multi-dimensional set of performance measures.
	Performance measurement should include both financial and non-financial measures, internal and
	external measures of performance and often both measures which quantify what has been
	achieved as well as measures which are used to help predict the future.
	Performance measurement cannot be done in isolation.
	Performance measurement is only relevant within a reference framework against which the
	efficiency and effectiveness of action can be judged.
Rourne et	Performance measures should be developed from strategy.
al (2003)	Performance measurement has an impact on the environment in which it operates.
al. (2003)	Starting to measure, deciding what to measure, how to measure and what the targets will be, are
	all acts which influence individuals and groups within the company.
	Once measurement has started, the performance review will have consequences, as will the
	actions agreed upon as a result of that review.
	Performance measurement, is an integral part of the management planning and control system of
	the company being measured.
	Performance measurement is being used to assess the impact of actions on the stakeholders of the

- 1. Decide what should be measured.
- 2. Decide how it is going to be measured.
- 3. Collect the appropriate data.
- 4. Eliminate conflicts in the measurement system.

company whose performance is being measured.

Points 1 and 2 are considered in this paper. Points 3 and 4 are not included in the following explanations because these steps are specific for each company. To be able to conceptualize a performance measurement system for innovation and to decide what needs to be measured, a common understanding of innovation is necessary (see Zizlavsky, 2013).

The Procedure

From the literature, three distinctive procedures can be discerned: (i) needs led, (ii) audit led and (iii) model led.

- 1. The needs led procedure is a top down procedure for developing performance measures where the customer, business and stakeholder needs are severally or jointly identified and used as a basis for the development of performance measures. In this approach, the measures are designed to monitor the companies' progress towards achievement of these needs. Examples of this approach include the different processes for designing the Balanced Scorecard (e.g. Kaplan and Norton, 1993; Kaplan and Norton, 1996b; Neely et al., 1996; Neely et al., 2000; Niven, 2014).
- 2. The audit led procedure can be considered more of a bottom up approach to the design of a PMS, starting with an audit of the existing performance measures. The information collected is then used to challenge the status quo and as a basis for amending the existing performance measures. Examples of this approach include the Performance Measurement Questionnaire (Dixon et al., 1990).
- 3. The model led procedure uses a prescribed theoretical model of the organisation as a rationale for designing the performance measures that should be deployed.

The Approach

There are two distinct types of approach that are identified in the literature: (i) consultant led and (ii) facilitator led approaches.

- 1. The consultant led approach is where the majority of the work is undertaken by an individual (or group of individuals, usually consultants) almost in isolation from the rest of the management team. The approach is typified by a small number of workshops, well-spaced in time, where the work of the consultant is reviewed. Between workshops, the consultant undertakes his or her work. An example of this is the approach of Kaplan and Norton (1993).
- 2. The facilitator led approach is different in that the majority of the work is undertaken by the management team together in facilitated workshops. Consequently, the management team's role is not restricted to critiquing work done by others. The role of the facilitator revolves around eliciting information from the assembled group, structuring the debate, probing the assumptions and if necessary, challenging the decisions made. An example of this is the later approach to developing balanced scorecards (e.g. Kaplan and Norton, 1996a; Neely et al., 1996).

CURRENT SITUATION IN THE CZECH REPUBLIC

How do Czech companies actually measure their innovation performance? What metrics do Czech companies use within IPMS? This was examined in Czech manufacturing innovative companies in 2013–2015. Considering Czech manufacturing companies and the above mentioned research questions, the following research hypotheses were addressed. This choice is related to the fact that managerial tools primary originated, and were subsequently developed, in manufacturing companies. The second feature was the fact that manufacturing industry (according to CZ-NACE rev. 2, division C, section 10-33) is considered as the most significant industry for development of the Czech economics since it is the largest sector of the Czech economy.

Hypothesis 1: Large companies tend to evaluate their innovative activities more than SMEs. *Hypothesis 2:* Large companies have implemented their innovation performance measurement system for a longer time than SMEs.

These hypotheses investigate the correlation between innovation performance measurement and the management control system (tools and methods) and company size, since the most important contingency factor.

INNOVATION SCORECARD: CONCEPTUAL FRAMEWORK OF INNOVATION MANAGEMENT CONTROL SYSTEM

Therefore, as its exploratory aim, this study investigates the role of company size in innovation performance measurement and management control. For this purpose, a questionnaire-based survey was implemented to gather information and determine the real state of solved issues of performance measurement and management control of innovations (detailed results are published in Zizlavsky (2015)). 354 completely filled questionnaires were collected from target population, which consists over 11,000 manufacturing companies. There, focusing on companies implementing IPMS (281 in total) a detailed analysis investigated the application of evaluation techniques, metrics and tools.

When asked whether the companies had evaluated the implemented innovation projects, the vast majority (79.38% of respondents) answered affirmatively. On the other hand, what is disquieting is the fact that this area is neglected by 20.62% of the respondents even though innovations are implemented by them (see Table 2).

			1 0			
Category (Number of emp	loyees)	Micro (1-9)	Small (10-49)	Medium (50- 249)	Large (>250)	Total
	No.	5	23	49	24	101
Yes	%	19,23%	22,77%	31,01%	34,78%	28,53%
D (1	No.	11	62	72	35	180
Rather yes	%	42,31%	61,39%	45,57%	50,72%	50,85%
	No.	8	9	21	8	46
Rather no	%	30,77%	8,91%	13,29%	11,59%	12,99%
No	No.	2	7	16	2	27
	%	7,69%	6,93%	10,13%	2,90%	7,63%
Total	No.	26	101	158	69	354
	%	100,00%	100,00%	100,00%	100,00%	100,00%

Table 2. Evaluation of innovation projects (Research 2013–2015, n=354)

Based on these data, hypothesis 1: Large companies tend to evaluate their innovative activities more than *SMEs* is tested. Independence statistical test of two qualitative characters is carried out for statistic dependency verification. For this purpose following question no. 9 "Have your company implemented innovation performance measurement system?" and data from Table 2 is used. Null fragmental hypothesis FH0 is going to be tested that random values are not depended in comparison with alternative fragmental hypothesis FH1.

FH0: Size of the company and evaluation of innovations are not related to each other. *FH1:* Size of the company and evaluation of innovations are related to each other.

Calculated test criterion: Chi-Sq = 1.967; DF = 1; P-Value = 0.161

For selected significance level $\alpha = 0.05$ is determined a quantile chi-sq (1) = 3.841. Because the value of test criterion was not realized in critical field (1.967 < 3.841 and P-Value = 0.161) fragmental alternative hypothesis FH1 is refused on five percentage level signification and null fragmental hypothesis FH0 is accepted. In other words, SMEs are aware of importance of innovation evaluation and they perform it as well as large companies. On the other hand, SMEs use different techniques for performance measurement than large companies (se Figure 1).

For companies which responded affirmatively to the above question (281 in total), the period since when has the company implemented innovation performance measurement system (IPMS) was examined.

Category (Number of em	ployees)	Micro (1-9)	Small (10-49)	Medium (50-249)	Large (>250)	Total
Less than 5	No.	12	29	25	8	74
years	%	57.14	35.80	20.00	14.81	26.33
From 5 to 10	No.	7	33	56	25	121
years	%	33.33	40.74	44.80	46.30	43.06
From 11 to 15	No.	2	14	36	15	67
years	%	9.52	17.28	28.80	27.78	23.84
More than 15 years	No.	0	5	8	6	19
	%	0.00	6.17	6.40	11.11	6.76
Total	No.	21	81	125	54	281
	%	100.00	100.00	100.00	100.00	100.00

 Table 3. Period of IPMS implementation (Research 2013–2015, n=281)

The initial hypothesis 2: *Large companies have implemented their innovation performance measurement system for a longer time than SMEs* is going to be tested. Again, independence statistical testing of two qualitative characters is carried out for statistic dependency verification. For this purpose following question no. 10 "Since when has been IPMS implemented in the company?" and data from Table 3 is used. Null fragmental hypothesis FH0 is going to be tested that random values are not depended in comparison with alternative fragmental hypothesis FH1

FH0: Size of the company and period of innovation performance measurement system implementation are not related to each other.

FH1: Size of the company and period of innovation performance measurement system implementation are related to each other.

Calculated test criterion: Chi-Sq = 5.835; DF = 3; P-Value = 0.120

For selected significance level $\alpha = 0.05$ is determined a quantile chi-sq (3) = 7.815. Because the value of test criterion was not realized in critical field (5.835 < 7.815 and P-Value = 0.120) fragmental alternative hypothesis FH1 is refused on five percentage level signification and null fragmental hypothesis FH0 is accepted. In other words, companies evaluate innovation processes no matter the period of PMS implementation.

In addition, the questionnaire focused on the 16 core project-level evaluation metrics of innovation performance. This set of metrics was formed after the literature review of the most frequent innovation management control tools (Carenzo and Turolla, 2010; Cokins, 2009; Davila et al., 2013; Niven, 2014; Skarzynski and Gibson, 2008; Tzokas et al., 2004). The innovation performance measurement tools were divided into two groups; financial and non-financial. The results of Top 3 metrics from each group are shown in Figure 1.



Figure 1. Metrics applied in innovation evaluation (Research 2013–2015, n=281)

Based on these results from empirical research in Czech manufacturing industry it can be stated that Czech companies are aware of importance of innovation performance measurement systems for innovation success. Most of the surveyed Czech companies measure the results using financial indicators (namely budget, revenues from innovation and EBITDA are the most frequently applied managerial tools in Czech innovative manufacturing companies), although the majority of managers in these companies also feel that non-financial indicators should be used to monitor the undertaken innovative efforts and projects. The managers should rely more on non-financial indicators than on the financial ones because these indicators provide a better assessment of progress in real time and of the probability of success.

Among all the PMSs this paper focuses on the Balanced Scorecard (BSC), which seems most appropriate for introducing a complex system of measuring innovation performance for an entire company (Donnelly, 2000; Donovan et al., 1998; Li and Dalton, 2003). Although its original idea focused on business strategy it can be applied to any company process including innovation. Nonetheless the introduction of a comprehensive BSC system, although its philosophy is simple and logical, is too challenging for Czech SMEs – in terms of time, organization, and finance. The empirical evidence demonstrates the low adoption rate of the Balanced Scorecard (Zizlavsky, 2015). Most Czech companies, especially medium and large, monitor performance of innovation by using specific financial and non-financial measures but without any logical link between them. In other words only a small number of companies, especially large ones and those having different perspectives, actually understand the importance of the cause-and-effect relationship between metrics. In addition, after overcoming the barriers and reluctance of the managers to communicate more detailed information about their systems of innovation evaluation, these systems proved not to be very appropriate, while being biased in favor of financial indicators.

While a company may not choose to adopt a formal BSC management system, it can learn and use the key concepts. The BSC helps managers to implement strategy through the development of an integrated set of relevant financial and non-financial measures. The non-financial measures, if properly selected, should be drivers of sustained profitability. The author therefore advises integration of selected features and indicators of the BSC and to create one's own specific Innovation Scorecard that would best capture the factors and metrics of innovation activities of the individual company is suggested. The selection of the relevant indicators must be tailored to the company as each innovation is unique, specific, and intended to bring competitive advantage and company growth (e.g. Bonner et al., 2001; Donnelly, 2000; Hart et al., 2003; Hauser and Zettelmeyer, 1997; Vahs et al., 2010).

Because of the characteristics and specifics of Czech business environment discussed above, the Innovations Scorecard is based on "the needs led" and "audit led" procedures and the "consultant led" approach. It is based on BSC methodology, where balance is the equilibrium between operative and strategic (short-term and long-term) goals, required inputs and outputs, internal and external performance factors, lagging and leading indicators, and also the already mentioned financial and non-financial indicators. Each measurement is part of a chain of cause-and-effect links.

INNOVATION SCORECARD

The design of an Innovation Scorecard must happen in an orderly, structured and logical sequence. Only a strictly logical approach can ensure that all the characteristics and essentials of such an exceptional activity as innovation will be respected. In this way the effectiveness of the Innovation Scorecard is guaranteed.

The basic structure of the Innovation Scorecard draws on Horvath's (2016) long-term experience with the implementing of the BSC and involves the following phases: (i) defining innovation strategy; (ii) setting strategic goals; (iii) constructing a relationship of cause and effect with the help of a strategic map; (iv) the choice of metrics; (v) establishing target values. In content these five phases collectively form an integrated whole. This gives rise to a sample approach, conceived in the form of concrete instructions for the process of implementing the Innovation Scorecard.

Design of an Evaluation System: Putting the Tools Together

Due to the scope of the paper this section is focused only on the design of conceptual innovation performance measurement framework. Therefore, it is based on the presumptions that:

- 1. The company has already defined its innovation strategy (e.g. Bessant and Tidd, 2011; Bonner et al., 2001; Pearson et al., 2000; Skarzynski and Gibson, 2008; Vahs et al., 2010).
- 2. The company has already set performance goals and fine-tuned the balance (e.g. Kaplan and Norton, 1993; Skarzynski and Gibson, 2008).
- 3. The company has already established its innovation business model (e.g. Davila et al., 2013).

Following the Stage Gate model by Cooper (1998; 2008), the input-process-output-outcomes model (Brown, 1996), PMS design rules (see Table 1) and the methodology of Innovation Scorecard, the innovation process can be divided into distinct stages and should be separated by management decision gates. This means an effective as well as an efficient approach, so that the new product can be moved from idea to launch in a systematic way.



Figure 2. Modified Stage Gate process (Cooper, 1998, p. 108) according to innovation process (Zizlavsky, 2013, p. 5)

Every stage is preceded by one gate. At each stage information is gathered to reduce project uncertainties and risks which is then evaluated at the following gate. Gates represent decision points with deliverables (what the innovation team brings to the decision point) and must-meet/should-meet criteria where the company can decide if it will proceed with the innovation project or if it is to be stopped, held or recycled. Thus gates are also referred to as "Go/No-Go check points" where a decision to invest more or not is made (Cooper, 1998; 2008). At the gates below-average projects should be stopped and resources should be allocated to other promising projects.

INNOVATION SCORECARD: CONCEPTUAL FRAMEWORK OF INNOVATION MANAGEMENT CONTROL SYSTEM

Gate 1: Initiation Phase – Measures for Ideation

Gate 1 consists of measurement inspiration related to activities which are devoted to identification of ideas for innovation projects. This phase is divided into factors which depend on whether ideas are actively generated or collected from existing resources, as well as if they originate from internal or external stakeholders. Therefore, idea screening is the first of a series of evaluations of whether the idea is according to the strategy of the company. It begins when the collection of inventive ideas is complete.

It is an initial assessment to weed out impractical ideas. This initial evaluation cannot be very sophisticated as it is concerned with identifying ideas that can pass on to the applied R&D stage to be developed into concepts and can be evaluated for their technical feasibility and market potential (for potential metrics see Table 4). The influence of innovation ideas is generally still very unclear and technical or economic success is therefore difficult to estimate. The typical innovation killer is a question like "How profitable is this new opportunity?" Of course, asking detailed questions about profitability is not wrong but many companies tend to ask this question very early – at a stage when it is impossible to answer it.

There are only rough economic estimates and data collection concentrates primarily on the sales volumes of overall and submarkets as well as the distribution of market shares. Risk analyses are regularly carried out in the initiation phase as regards technical feasibility and economic success. Precise cost and revenue estimations and allocations can still not be made since the use of the innovation and its associated products or services has not been specified yet. The recorded values cannot be allocated to the innovation yet. The recording process only indicated possible leeway. The extent to which this can be filled by the innovation remains open in this phase. The first things a company should ask when evaluating a new idea are:

- How radical is the idea?
- How big or how important could it be?
- What kind of impact could it have on customers, on the competition, on the whole industry?
- How big is the potential market?
- Would customers actually want it?
- How much would they care about it?

Table 4. Measurement inspiration for Gate 1

	Funding availability
	Knowledge depth
	Number of incoming proposals from different sources
	Number of patents or prototypes further developed based on existing patent portfolio
Inputs	Number of, and time between, collection activities focused on specific external stakeholders
	Percentage of R&D budget that is non-internal
	Quality IT infrastructure to support interest groups
	Quality of resources allocation process
	Research agreements with partners
	Innovation and creativity workshops
	Longitudinal change of proposal (e.g. to see peaks after presentation activities)
	Number of projects based on ideas from external stakeholders
	Number of workshops with customers on future needs
Dragon	Number of, and time between, activities of presenting the work of the innovative team
Process	Number of, and time between, activities of systematic idea generation
	Participation of suppliers in stage gate process
	Quality of development innovation process
	Quality of external collaborators
	Quality of planning systems
	Alliances to further develop ideas
Outputs	Employee commitment
	Employee suggestions

	Funds committed to innovation			
	Change in core competencies			
	Improvement in knowledge stock			
	Investment in new projects			
	Map of upcoming innovations to the market			
	Percentage of growth covered by innovation			
	Quality of ideas funded			
	Actual versus budgeted costs for planning and knowledge management			
	Costs of developing and maintaining infrastructure			
	Effort spent in giving feedback			
	Elapsed time from proposal to feedback			
	Expected sales from incremental innovations against competitors			
Outcomes	Expected sales from radical innovations against competitors			
	Change in revenue per employee			
	Number of submitted proposals from people with rejected proposals (it is important that people			
	continue to give proposals even if not all ideas become projects)			
	Percentage of sales from ideas originated outside			
	Percentage of sales together with partners			

Gate 2: Development Phase Measures for Applied R&D

The project proposals which are considered best are chosen and innovation projects are started for proof-of-concept and prototype development. At Gate 2 the project is re-evaluated based on the criteria of Gate 1 and additional variables such as market potential. At the end of the inventive phase in the innovation process the company may have a list of many projects that senior management would like to complete. Each project may (or may not) possibly require different degrees of innovation. If current funding will support only a few projects, then how does a company decide which of the twenty projects to work on first? This is the project selection and prioritization process. Consensus criteria and methods for assessing each candidate project (see Table 5) against these criteria are essential for rational decision-making.

At this early stage the investment appraisal methods are still not applied since they require much more detailed information on the time of occurrence of input values. The estimate is limited to a basic comparison of investment costs and the revenue and growth potential of the market addressed, augmented by risk-related statements. The cost sheet is to provide an idea of the financial and organizational expenses to be expected. Questions to consider in Gate 2 are:

- How feasible is this?
- How mature is the technology?
- Do we have the resources, the competencies, the capabilities to make it happen or can we get them somewhere else (through partnerships)?
- Do we have the distribution channels to bring this to the market?

At the end of this applied R&D stage the product is finally developed physically. The result of this stage is a tested prototype. Apart from technical and qualitative aspects it is important to involve the customers or users for feedback in order to better understand their unmet and unspoken needs and problems and benefits sought in the innovation. Economic data and plans, e.g. production and marketing plans, are reviewed. Based on this in Gate 2 the product is tested again for overall operability. This includes testing the product in the market. Cooper (2008) suggests field trials, pre-tests or test markets in order to assess customers' reactions and calculate approximate market share or revenues.

INNOVATION SCORECARD: CONCEPTUAL FRAMEWORK OF INNOVATION MANAGEMENT CONTROL SYSTEM

	Table 5. Weasurement hispitation for Gate 2
	Amount and quality of customer data acquired related to innovation
Innuta	Free time allowances for R&D employees
	Market and technology research resources
	Number of experienced innovation team members
	Number, complexity and size of competitors, customers, partners, and suppliers
inputs	Objectives for innovation efforts clearly communicated to senior managers and employees
	Percentage of performance measures and rewards aligned and linked to innovations
	Quality of information for innovation
	Success of ideas passing through selection and execution processes
	Time dedicated to innovation
	Alignment between innovation strategy and resource allocation
	Cost, development time, delivery time, quantity, and price of products and services offered
	Estimated project effort
	Innovation contribution to R&D projects in progress
n	Number of terminated/unsuccessful projects (a certain degree of risk-taking is good)
Process	Percentage of innovation efforts devoted to radical, semi-radical, and incremental innovation
	Product platform effectiveness
	Rate and quality of experimentation
	Reduction in new product/process development time/cost within target sales/profits
	Subjective assessment of project risk (feasibility, technical challenge, etc.)
	Estimated lead time to market launch of project results
	Number of projects with future customer or new market relevance
	Percentage of innovation projects outsourced
	Percentage of sales from new products
0-44-	Potential loss (alternative cost) of not selecting a project (worst-case scenario)
Outputs	Projected residual income
	Projected sales growth
	R&D productivity
	Ratio of short-term and long-term projects
	Sales growth
	Customer profitability
	Customer satisfaction with innovation activities
	Frequency of repeat customers
	Margin of product and services offered to customers
0.1	Market share
Outcomes	New customers gained through innovation
	Number of customers through existing products/services who buy new products/services
	Number of new customers of new products/services who go on to buy existing ones
	Number of new product and service lines introduced
	Revenues generated through innovation efforts
L	

Table 5. Measurement inspiration for Gate 2

Gate 3: Production Phase – Measures for Realization

Choosing the right projects is only half of the way to ensure a company's long-term competitiveness. Even if the right innovation projects are selected it remains important to assess whether the execution of every single project is successful. More precisely companies face the challenge of measuring the performance of innovation projects.

As questions of feasibility from the previous gate get resolved, the final questions to start asking are those that concern business model economics:

- Can we actually make it profitable?
- What sorts of revenue might this idea generate?

- What are the costs involved?
- What sort of margin can we put on this?

Therefore, the planning phase is used to prepare and develop innovation concepts. These concepts build the framework for the values to be considered in this phase. Forecast, potential revenues from products and services and OPEX form the basis for the calculation. Depending on the nature and design of the innovation, revenues can be broken down into detailed reference values such as customer groups or sub-segments.

Gate 3 assesses the product a last time before its launch. In order to assure performance of innovation projects a number of tools can be applied, such as milestone trend analysis, project reporting, project status analysis, or cost trend analysis. Another tool that can be applied is target costing. This strategic cost management allows the entire life cycle of product and influencing the performance of innovation project in the early stages of product development to be considered. Table 6 provides a set of inspiration innovation metrics to choose or be inspired by for Gate 3.

Table 6. Measurement inspiration for Gate 3		
	Budget allocation to innovative activities	
Inputs	Distribution of team members' background, experience, age, gender, etc.	
	Estimated remaining investment needed to implement innovation in real products	
	Number of competence are that are mastered within the team	
	Number of process changes which are considered significant improvements	
	Number of projects which shift from innovation to normal development	
	Project resources (effort, budget, etc.)	
	Share of prototype construction which can be reused directly in normal product development	
	Share of total effort spent on creative work compared to, e.g. administration	
	Subjective assessment of how well strategic competence areas are covered	
	Time allocation devoted to each team member's own proposal	
Process	Implementation of new organizational method	
	Involvement in the innovation processes	
	Lead time per project	
	Level of communication and information flow	
	Level of coordination among R&D, marketing and production units	
	Number of projects each team member has managed or participated in	
	Share of budget on outsourced projects	
	Subjective assessment of the benefit of each process change	
	Subjective assessment of the effectiveness of innovation assessment methodology	
	Time between deadlines for each project member	
	Work environment and relations with co-workers	
	Average development cycle time stages	
	Average expenses for innovative activities	
	Degree of match between the R&D budget and the objectives set	
Outputs	Degree of match between the resources deployed and R&D results achieved	
	Degree of success in keeping costs to budget	
	New products approved/released	
	Number of implemented process improvement proposals	
	Number of projects per year, number of people involved per project	
	Percentage of innovation projects abandoned before their end	
	R&D expenses as percentage of sales	
	Team work effectiveness	
	Average cost of each finished project	
	CAPEX	
Outcomes	Cost reduction (derived from innovation projects)	
	Monetary rewards for achieved personal and group goals achieved	
	Monetary rewards for patent proposals	
	OPEX	
	Optimization of the use of capital (human and material)	

Gate 4: Commercialization Phase – Measures for Innovation Execution (Short-term Assessment)

The specified product concepts are launched on the market using traditional marketing tools and on the basis of the product launch processes in the commercialization phase. At Gate 4 the product is assessed once more. Actual performance is compared to forecasts. Internal accounting provides cost and service allocation and forecasts as basic information for this phase. Therefore metrics provided by Table 7 can be chosen.

The innovation profitability analysis focuses on individual products, service offers, product bundles, dedicated customer segments and sales areas in this phase. There is already a clear idea of production costs and willingness to pay, enabling detailed data to be recorded. As the data pool improves, the relationship between innovation and origin of cost gradually becomes clearer. Specifically the level of detail and the specific nature of the data make it easier to allocate innovations. Cost accounting becomes increasingly helpful and offers more precise information, especially with regard to OPEX and the determination of flat rates.

Company accounting and the company's planning systems provide a wide range of tools in this phase with which both cost and revenue-related planning and control can be achieved. In the measurement, the project-induced revenues must be compared with capital expenditure over time. Data for the forecast revenues and investment costs should be agreed with the product owners. For interconnected and network products this is difficult since there are generally several product owners. Financial mathematics provides above all the net present value method as a dynamic investment appraisal method (Ryan and Ryan, 2002). Under this method, payments received and made over the product life-cycle are compared and discounted to their present value. Corporate earnings and innovation risk are controlled using the specified interest rate.

Inputs	Budget percent allocated to innovation effort
	Number of collaboration activities with internal and external stakeholders
	Number of end users of released product features that originate from the team's work
	Number of change requested which originate from the team's work
	Number of released product features impacted by the team's work
	Number of results from the team accepted by product planning (or other stakeholders)
	Percentage of innovation projects outsourced
	Performance-based compensation linked to innovation success
	Product uniqueness
	Success of ideas passing through selection and execution processes
	Time dedicated to innovation
	Alignment between innovation strategy and resource allocation
	Cost, development time, delivery time, quantity, and price of products and services offered
	New product acceptance rate
	Number of gateway returns
	Percentage of innovation projects that respect the cost and outputs planned
Process	Portfolio balanced over time, returns, risk, and technologies
	Product and process quality score
	R&D productivity
	Rate and quality of experimentation
	Reduction in new product/process development time/cost
	Share of project effort spent on internal marketing
Outputs	Achievement of quality and time objectives
	Brand image
	Customer acceptance
	Customer satisfaction improvement
	Enlargement of product variety
	General quality of work undertaken in innovation activities

Table 7. Measurement inspiration for Gate 4

	Market share growth
	Percentage of projects that directly involve the customer
	Percentage of sales from new product
	R&D efficiency (time to market)
	Sales growth
Outcomes	Break even time
	Customer profitability
	Margin of product and services offered to customers
	New customers gained through innovation
	Number of customers through existing products/services who buy new products/services
	Number of new customers of new products/services who go on to buy existing products/services
	Number of new product and service lines introduced
	R&D value creation in commercialisation stages
	Return on capital employed
	Turnover from and to R&D units

Gate 5: Post-implementation Review (Long-term Assessment)

The post-implementation review is a process that after an appropriate interval follows completion of the innovation project and is a comprehensive review of the completed innovation. The aim is a factually accurate and precise as possible analysis of the actual implementation of the innovation project in all phases, and after comparison with the plans the identification of all the factors that resulted in deviation of the project from the fulfilment of the original goals. The post-implementation reviews of innovation projects are suitable for focusing primarily on the setting up and evaluation of:

- 1. Degrees of fulfilment of the project goals; not only quantitative, but also qualitative ones which were only formulated verbally. A part of this evaluation is assessment of the conformity between the anticipated financial results and the values of efficiency indicators and the results and values actually achieved.
- 2. Compliance of the implemented innovation project with the strategic focus of the company. The essence is an assessment of whether the implemented project deepened the strategic orientation of the company and helped to fulfil its strategic goals. The strategic accent of the post-implementation review must also include an answer to the question of whether the company is correctly strategically oriented and whether it has appropriately set strategic goals.
- 3. The methods for the preparation of the innovation project, the evaluation of its versions and the choice of the version implemented.
- 4. Keeping to the planned budget and duration of the project.
- 5. Compliance of the basic initial premises of the project with the reality after its implementation. These premises relate both to micro-environmental factors (demand and selling price, the prices of basic inputs, behavior of competitors, etc.) and the macro-environment (economic trends, interest rates and exchange rates, legislative changes, etc.).
- 6. Significant factors which led to problems at various stages in the implementation of the innovation project (identification of the causes of failure). These can be internal factors (shortcomings in the preparation, evaluation, choice, planning and realization of projects), external factors, or risk factors (whether identified beforehand and made part of risk management), or overlooked or completely unforeseeable factors.
- 7. Significant factors which made the biggest contribution to the success of the project (identification of the causes of success). These factors can once again be internal (high quality of the preparation and implementation of the project) or external (a combination of favorable circumstances or luck).
- 8. Lessons learned from the post-implementation reviews for the preparation, evaluation, choice and realization of future innovation projects (what to avoid, what to do differently and what to strengthen and continue to apply).

It is obvious that the above-listed content of post-implementation reviews of innovation projects is not exhaustive. Depending on the field of the innovation project the content of their post-implementation reviews may

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have, aside from what they hold in common, certain specific features and nuances (certainly post-implementation reviews of innovation projects in IT and in industrial oil refining will differ). Varied project size can also lead to specific features, etc.

CONCLUSION

The paper is based on current knowledge in the area of innovation management and management control and on specific conditions in today's business environment. It summarizes the issues of managing and measuring the effectiveness of the innovation process. It identifies and explains, from a theoretical perspective, shortcomings in today's approaches and offers possible solutions. This work builds on knowledge from significant professional authors, summarizes it and tries to develop it further.

The paper continues research activities and publications and thereby closes long-term empirical research carried out in Czech manufacturing industry in 2009–2015. It was necessary to study the individual definitions, processes and means of measuring and managing innovation performance as available in the current state of scientific thinking. This review phase was oriented to the study of especially foreign and Czech professional literature as found in books, articles in journals, information servers and the databases of libraries, universities and other organizations.

Managerial Implications

On the basis of this literature review and an empirical study in Czech manufacturing industry, a management control system approach to innovation performance measurement suitable for Czech business environment called the Innovation Scorecard was proposed. This paper dealt with evaluation of innovation in five phases of the innovation process based on a modified stage gate model. Moreover, at each gate the Innovation Scorecard framework provides a set of factors and for each factor a set of inspiration metrics to choose from or be inspired by. Major implications relevant to academics and practitioners stem from this study.

First, the work has implications for the field of business performance measurement. Research has outlined a number of metrics; various methods and performance measurement frameworks for innovation process evaluation that exist in Czech manufacturing companies. From a managerial viewpoint, the Innovation Scorecard may provide useful guidelines for focusing attention and expending resources during the entire innovation process. It is argued that the informed use of evaluation metrics as guideposts for increased managerial attention and the identification of problems may help management to prevent drop-and-go-errors in their innovation efforts. Managers may compare and contrast findings from this study with their own innovation practices and, by doing so, enrich the knowledge pool upon which they draw to make well-informed decisions.

Second, the research can aid practitioners, since it provides organizations with new insights and findings which managers can translate into the context of their own companies. Specifically, companies know that with a clear innovation strategy they can be more innovative, improve innovation processes and achieve better financial results.

Limitations and Future Research

However, as with any other research, the methods employed have inherent limitations, which lead to opportunities to improve future research in this area. The results of this study are limited to the analysis of a single case study, representing a starting point for further research in other industries and countries. In this sense, the findings may be extrapolated to other CEE countries, since economic and technological development in the Czech Republic is similar to that in other OECD Member countries.
The real challenges for managers come once they have developed their innovation measurement system, for then they must implement the measures. As soon as they seek to do so they encounter fear, politics and subversion. Individuals begin to worry that the measures might expose their shortcomings. Different people seek to undermine the credibility of the measures in different ways. Some seek to game the system. Others seek to prevent it ever being implemented. Research into these issues and particularly into how they can be addressed is much needed. Once these questions have been answered then the challenge lies in how the measures can be used to manage the business: What is the role of measurement and how can the measurement system itself be managed? How can managers ensure that the measures they use remain relevant over time? This is a full and challenging research agenda, and in view of the importance of the innovative process for the development of the company and the amount of resources put into it, it is also a vital one.

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REFERENCES

- Adams, R., Bessant, J. and Phelps, R. (2006). Innovation management measurement: A review. *International Journal* of Management Reviews. 8(1), 21-47.
- Avlonitis, G., Papastathopoulou, P. and Gounaris, S. (2001). An empirically-based typology of product innovativeness for new financial services: Success and failure scenarios. *Journal of Product Innovation Management*. 18(5), 324-342.
- Azzone, G., Masella, C. and Bertele, U. (1991). Design of performance measures for time-based companies. International Journal of Operations & Production Management. 11(3), 77-85
- Baldwin, J. and Gellatly, G. (2003). Innovation strategies and performance in small firms. Cheltenham: Edward Elgar.
- Bassani, C., Lazzarotti, V., Manzini, R., Pellegrini, L., and Santomauro, S. (2010) Measuring performance in R&NPD: the case of Whitehead Alenia Sistemi Subacquei - a Finmeccanica company. *European Journal of Innovation Management*. 13(4), 481-506.
- Bessant, J. and Tidd, J. (2011). Innovation and entrepreneurship. NJ: Wiley.
- Bonner, J.M., Rueker R.W. and Walker, O.C. (2001). Upper management control of new product development project performance. *The Journal of Product Innovation Management*. 19(3), 233-245.
- Bourne, M., Neely, A., Mills, J. and Platts, K. (2003). Implementing performance measurement systems: a literature review. *International Journal of Business Performance Management*. 5(1), 1-24
- Brown, M.G. (1996). *Keeping Score: Using the Right Metrics to Drive World Class Performance*. New York, NY: Productivity Press.
- Calabrese, A., Campisi, D., Capece, G., Costa, R. and Di Pillo, F. (2013). Competiveness and Innovation in High-tech Companies: an Application to the Italian Biotech and Aerospace Industries. *International Journal of Engineering Business Management*, 5, 40-51.
- Carenzo, P. and Turolla, A. (2010). Diffusion of management accounting systems in manufacturing companies. In M.J. Epstein et al., eds. Performance measurement and management control: innovative concepts and practices. Bingley: Emerald, pp. 457-499.
- Chiesa. V, and Frattini, F. (2009). *Evaluation and performance measurement of research and development*. Cheltenham: Edward Elgar Publishing.
- Cokins, G. (2009). Performance management: integrating strategy execution, methodologies, risk, and analytics. Hoboken, N.J.: Wiley.
- Cooper, R.G. (2008). Perspective: The Stage-Gate idea-to-launch process update, What's new and NextGen systems. Journal of Product Innovation Management. 25, 213-232.
- Cooper, R. (1998). A multidimensional approach to the adoption of innovation. *Management Decision*. 36(8), 493-502.

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- Danneels, E. and Kleinschmidt, E. (2001). Product innovativeness from the firm's perspective: Its dimensions and their relation with project selection and performance. *Journal of Product Innovation Management*. 18(6), 357-373.
- Davila T., Epstein M. and Shelton, R. (2013). *Making Innovation Work: How to Manage It, Measure It, and Profit from It*. Updated edition, Upper Saddle River: FT Press.
- Dixon, J.R., Nanni, A.J. and Vollmann, T.E. (1990). *The New Performance Challenge: Measuring Operations for World-Class Competition*. Homewood, IL: Irwin Professional Pub.
- Donnely, G. (2000). A P&L for R&D. CFO Magazine. February: 44-50.
- Donovan, J., Tully, R. and Wortman, B. (1998). *The Value Enterprise: Strategies for Building a Value-based Organization*. Toronto: McGraw-Hill/Ryerson.
- dos Santos Ferreira, V.H. and Cardoso, R. (2014). The Relation Between Quality Management and Innovation Performance in the Textile Sector in Portugal. *Journal of Global Business and Technology*. 10(2), 13-24.

Goold, M. (1991). Strategic control in the decentralised firm. Sloan Management Review. 32(2), 69-81.

- Gronum, S., Verreynne, M.L. and Kastelle, T. (2012). The Role of Networks in Small and Medium-Sized Enterprise Innovation and Firm Performance. *Journal of Small Business Management*. 50(2), 257-282.
- Hart, S., Hultink, E.J., Tzokas, N. and Commandeur, H.G. (2003). Industrial companies' criteria in new product development gates. *Journal of Product Innovation Management*. 20, 22-36.
- Hauschildt, J. and Salomo, S. (2010). Innovationsmanagement. München: Verlag Vahlen.
- Hauser, J.R. and Zettelmeyer, F. (1997). Metrics to evaluate RD&E. Research Technology Management. 40, 32-38.
- Henard, D. H. and Szymanski, D. (2001). Why Some New Products are More Successful than Others. *Journal of Marketing Research*. 38(3), 362-375.
- Horvath & Partners. (2016). Balanced Scorecard umsetzen. Gebunden: Schäffer-Poeschel.
- Kaplan, R.S. and Norton, P.D. (1993). Putting the balanced scorecard to work. *Harvard Business Review*. 71(5), 134-147.
- Kaplan, R.S. and Norton, P.D. (1996a). *The balanced scorecard: Translating strategy into action*. Boston: Harvard Business School Press.
- Kaplan, R.S., Norton, D.P. (1996b). Using the balanced scorecard as a strategic management system. *Harvard Business Review*. 74(1), 75-85.
- Kerssens-Van Drongelen, I.C. and Cooke, A. (1997). Design principles for the development of measurement systems for research and development processes. *R&D Management*. 27(4), 345-359.
- Kerssens-van Drongelen, I.C. and Bilderbeek, J. (1999). R&D performance measurement: more than choosing a set of metrics. *R&D Management*. 29(1), 35-46.
- Kerssens-Van Drongelen, I.C., Nixon, B. and Pearson, A. (2000). Performance measurement in industrial R&D. *International Journal of Management Reviews*. 2(2), 111-143.
- Li, H. and Atuahene-Gima, K. (2001). Product innovation strategy and the performance of new technology ventures in China. *Academy of Management Journal*. 44(6), 1123-1134.
- Li, G. and Dalton D. (2003). Balanced Scorecard for I+D. Pharmaceutical Executive. 23(3), 84-90.
- Lynch, R.L. and Cross, K.F. (1991). Measure up!: The essential guide to measuring business performance. London: Mandarin
- Mansury, M.A. and Love, J.H. (2008). Innovation, Productivity and Growth in US Business Services: A Firm-Level Analysis. *Technovation*. 28, 52-62.
- Markatou, M. and Stournaras, Y. (2013). Innovation for Entrepreneurship: Is New Technology a Driving Mechanism for the Creation of a Firm? *Journal of Global Business and Technology*. 9(2), 1-11.
- Maskell, B.H. (1991). Performance measurement for world class manufacturing. Cambridge, MA: Productivity Press.
- Merschmann, U. and Thonemann, U.W. (2011). Supply chain flexibility, uncertainty and firm performance: an empirical analysis of German manufacturing firms. *International Journal of Production Economics*. 130(1): 43-53.
- Min, S., Klawani, M.U. and Robinson, W.T. (2006). Market pioneer and early followers survival risks: A contingency analysis of really new versus incrementally new product-markets. *Journal of Marketing*. 70(1), 15-33.
- Neely, A., Mills, J., Platts, K., Gregory, M. and Richards, H. (1996). Performance measurement system design: Should process based approaches be adopted? *International Journal of Production Economics*. 46-47, 423-431
- Neely, A., Mills, J., Platts, K., Gregory, M., Richards, H. and Bourne, M. (2000). Performance measurement system design: Developing and testing a process-based approach. *International Journal of Operations & Production Management*. 20(10), 119-145
- Niven, P.R. (2014). Balanced scorecard evolution: a dynamic approach to strategy execution. Hoboken: Wiley.

- Pearson, A.W., Nixon, W. and Kerssens-Van Drongelen, I.C. (2000). R&D as a business what are the implications for performance measurement? *R&D Management*. 30(4), 355-364.
- Prajogo, D.I. (2006). The Relationship between Innovation and Business Performance: A Comparative Study between Manufacturing and Service Firms. *Knowledge and Process Management*. 13(3), 218-225.
- Rosenbusch, N., Brinckmann, J. And Bausch, A. (2011). Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *Journal of Business Venturing*. 26(4), 441-457.
- Schumann, P., Ransley, D. and Prestwood, D. (1995). Measuring R&D performance. *Research Technology Management.* 38(3), 45-54.
- Skarzynski, P. and Gibson, R. (2008). Innovation to the core: a blueprint for transforming the way your company *innovates*. Boston: Harvard Business Press.
- Tzokas, N., Hutlink, E.J. and Hart, S. (2004). Navigating the new product development process. *Industrial Marketing Management*. 33, 619-626.
- Vahs, D., Koch, V. and Kielkopf, M. (2010). Innovation generating and evaluation: The impact of change management. In: Gerybadze A. et al. editors. *Innovation and international corporate growth*, Berlin: Springer, 151-174.
- Vermeulen, P.A.M., De Jong, J.P.J. and O'shaughnessy, K.C. (2005). Identifying key determinants for new product introductions and firm performance in small service firms. *Service Industry Journal*. 25(5), 625-640.
- Werner, B.M. and Souder, W.E. (1997). Measuring R&D performance: state of the art. *Research Technology* Management. 40(2), 34-42.
- Wingate, L.M. (2009). Project management for research and development: guiding innovation for positive R&D outcomes. Boca Raton: CRC Press.
- Wisner, J.D. And Fawcett, S.E. (1991). Link firm strategy to operating decisions through performance measurement. *Production and Inventory Management Journal*. 32(3), 5-11.
- Zizlavsky, O. (2013). Past, Present and Future of the Innovation Process. International Journal of Engineering Business Management. 5, 1-8.
- Zizlavsky, O. (2015). Approaches to Innovation Process Assessment: Complex Results from an Exploratory Investigation. *International Journal of Engineering Business Management*. 7: 1-16.
- Zizlavsky, O. and Karas, M. (2014). The Relationship Between R&D Expenses and Performance: Evidence from European Manufacturing Enterprises. In *The 26th European Modeling & Simulation Symposium. Bordeaux*. 72-78.

DRIVERS OF THE USE OF SOCIAL NETWORKING SITES FOR TRAVEL ARRANGEMENTS IN SOUTH AFRICA: TEST OF THE SOCIAL EXCHANGE THEORY

Rosemary Matikiti, Mornay Roberts-Lombard, and Mercy Mpinganjira

ABSTRACT

The main objective of this study was to examine the key factors that motivate and prevent individuals to use social networking sites to make travel arrangement. The target population consisted of all travellers from the Gauteng province in South Africa who have used social networking sites to make their travel arrangements. A total of 325 responses were used for analysis after data screening through Structural Equation Modelling (SEM). The results revealed that enjoyment is the key factor that motivates the use of social networking sites when making travel arrangements. Perceived risk on the other hand was found to be the key factor that prevents the use of social networking sites are recommended to increase their social presence features on their social networking walls, make their sites user-friendly and have security features in order to lure more people to them.

Keywords: Social Networking Site, Travel Arrangements, South Africa, Social Networking Site Use

INTRODUCTION

Social networking sites have been growing at a fast rate since the inception of Web 2.0 in 2005. For example, in 2011 there were 74 popular social networking sites worldwide, while in 2015 there were close to 90popular social networking sites globally (Practical Ecommerce, 2011; Mehra, 2015). Facebook, Twitter, and LinkedIn are the most-

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Mercy Mpinganjira is a Professor in the Department of Marketing Management at the University of Johannesburg, South Africa. She holds a PhD from University of Newcastle (Australia) and her current research interests are in the fields of e-Marketing and Consumer Behaviour. She has published widely in both local and international journals. She has also presented some of her research findings at leading international conferences including the Academy of Marketing Science (AMS) annual conference (USA) and the Australia and New Zealand Marketing Academy Conference (ANZMAC). She is a member of various professional bodies including the Marketing Association of South Africa and the Southern Africa Institute for Management Scientists. used and best-known social networking sites in South Africa (Writter, 2015). Social networking sites are defined as 'web-based services that allow individuals to create a public profile, create a list of users with whom to share connections, as well as view and cross the connections within the system' (Boyd and Ellison, 2007:3).

Most online social sites allow users to connect with a group of online friends, to communicate constantly with them, and to reconnect with old friends who share similar interests (Ernst, 2014). Social networking sites also has the ability to relay information in real time across the globe (Bowen and Bowen, 2016). Users of social networking sites, apart from blogging and exchanging messages, can also show their personality through designing their profile pages (Choi and Chung, 2013). Individuals choose friends with whom to communicate and have the freedom to present their profiles publicly or privately and to 'unfriend' people in their network that they do not like (Livingstone, 2008:394). Users have full control over the type of friends with whom to socialise with online; over 81% of the South African online population use social networks like Facebook, Twitter, and YouTube (Ipsos, 2014). Globally, social networks and blogs are the most common internet technologies (Macnamara and Zerfass, 2012).

Since the global increase in the use and popularity of social networking sites, a number of researchers (Shu and Chuang, 2011; Jalilvand and Samiei, 2012; Blasco-Arcas, Hernandez-Ortega and Jimenez-Martinez,2014; Hsu, Chuang and Hsu,2014) have taken an interest in investigating user attitude and adoption intention on social networking sites. Although these studies provide interesting findings on the use of social networking sites, they are limited in their approach, thus providing opportunity for further improvement. Most of previous studies disregard the individual's actual use behavior and what motivates the individual to participate in a particular social networking site (Chen, 2013). A literature review shows that intention to use a particular online technology may not positively influence behaviour for reasons such as usability (Elbanna, 2010; Zoonen, Verhoeven and Elving, 2014; Choi and Chung, 2013; Rauniar, Rawski, Yang and Johnson, 2014). A study is therefore required to establish the factors that motivate individuals to use a particular social networking site when making travel arrangements such as accommodation bookings, flights booking, car hire and deciding on which attractions to visit as well as factor which hinders individuals to use some social networking sites since there is limited information.

The questions that this study seeks to answer are: *What are the main aspects that motivate members to use social networking sites for travel arrangements?* What are the main aspects that discourage members from using social networking sites for their travel arrangements? To answer these questions, this study adopted the Social Exchange Theory (SET), and a model was developed proposing selected factors that either motivate, or hinder, individuals in their use of social networking sites for travel arrangements. SET is one of the most important theories in explaining factors that influence social interactions and it considers the cost and benefits experienced by individuals when using online technologies in order to understand users' social behavior (Chen, 2013). However, most of the previous research on social networking sites adopted either the Technology Acceptance Model (TAM) or the Theory of Planned Behaviour (TPB)(Zoonen, Verhoeven and Elving, 2014; Rauniar *et al.*, 2012; Venkatesh and Davis, 2000; Sago, 2013; Al-Ghaith, 2015; Kate, Haverkamp, Mahmood and Feldberg, 2010;PellingandWhite, 2009; Baker and White, 2010), neither of which takes into account the cost experienced by online users.

PROBLEM STATEMENT

Statistics show that the use of social networking in South Africa is increasing, evidenced by increasing numbers of people who use YouTube and Instagram. From August 2014 to August 2015 YouTube and Instagram members increased by 53% and 65% respectively (South Africa Social Media Landscape, 2015). However, social networking sites such as Pinterest and Mxit South Africa have experienced a decline in members. Mxit members fell from 6.5 million to 4.9 million in 2014, and Pinterest members decreased from 910 000 to 840 000 by August 2014 (South Africa Social Media Landscape, 2015). There must be reasons why some social networking sites are experiencing an increase in members while others are in decline and these reasons should be established. This necessitates a study to establish the factors that motivate South Africans to join, or hinder them from joining and participating in, selected social networking sites in general, as well as for specific purposes. The purpose of this study is to uncover factors that influence the use of social networking sites for travel arrangements, and so to add to the existing knowledge on the use of social networking sites by travelers.

OBJECTIVES

Primary Objective

To establish the factors that influence usage of social networking sites for making travel arrangements.

Secondary Objective

- To determine how different factors interact to determine members' use of social networking sites when making travel arrangements online.
- To establish factors that influence enjoyment when using social networks.
- To examine the influence of internet risk perception on perceived risk and on trust in social networking sites.

LITERATURE REVIEW

The Social Exchange Theory (SET)

The Social Exchange Theory (SET) was founded in1961 (Emerson, 1976). It originated in sociological studies that explored how people communicate and how they are willing to share their private issues in small groups. SET suggested that, before people participate in any social group activities, they consider the merits and demerits of the interaction and decide whether or not to engage in the activities conducted online (Posey, Lowry, Roberts and Ellis 2010). The theory states that people participate in those activities they think are rewarding, and that costly activities are avoided (Omotoso, 2012). Thus individuals engage in online activities, expecting to receive some intangible benefits (Chen, 2013:1227).

SET has been successfully applied to some studies in information systems research (Jarvenpaa and Staples, 2010; Posey *et al.*, 2010; Staples and Webster, 2008; Chen, 2013). Jarvenpaa and Staples (2010) applied SET when trying to examine how employees exchange information; they concluded that employees only share information if they believe that the organisation will, in turn, increase recognition. Staples and Webster (2008) applied SET to determine the relationship between trust and knowledge-sharing in virtual team and confirmed that trust significantly influences knowledge-sharing. Posey *et al.* (2010) and Chen (2013) applied SET in social media studies and concluded that social costs (perceived risk) hinder one from fully participating in social networking sites. Few studies are focused on the applicability of SET in explaining social networking site use for arranging travel from a South African perspective. A set of factors that motivate or prevent members to use social networking sites for making travel arrangements were extracted from the literature.

Proposed Factors that Influence the Use of Social Networking Sites

Several studies have been conducted to establish the factors that influence the use of social networking sites. Six factors were extracted from the literature. These are discussed in the sub-sections that follow starting with perceived enjoyment.

Perceived Enjoyment

Perceived enjoyment was defined by Davis, Bagozzi and Warshaw (1992)as 'the extent to which the activity of using the computer is perceived as enjoyable in its own right, apart from any performance consequences that may be anticipated'. In the context of the study at hand, perceived enjoyment can be defined as the degree to which people think that participating in the activities of social networking sites would be enjoyable. When using social networking sites, individual are free to communicate with friends and family, exchange photos or videos, share life experiences, and engage in group conversations (Chen, 2013) thereby experiencing fun and entertainment. Recent studies (Ernst, Pfeiffer, and Rothlauf, 2013; Ernst, 2014; Bataineh, Al-Abdallah and Alkharabsheh, 2015) agree that perceived enjoyment is important in influencing the actual use of social networking sites. In this study it is expected that enjoyment will influence site use for making travel arrangements.

H1: Perceived enjoyment is positively related to social networking sitesuse for making travel arrangements

Social Presence

Fulk, Schmitz and Power (1987) described social presence as the degree to which a person is perceived as a "real person" in mediated communication'. Previous studies revealed that most social networking sites are designed to promote social presence, including personal images, personalized messages, and video calling (Kumar and Benbasat, 2006). Research further notes that the use of graphical products increases social presence (Heenrink, Krose, Wielinga and Evers, 2008). Increased social presence can also affect other factors such as perceived benefits and enjoyment (Shen, 2012). When using social networking sites one can receive message feedback immediately and comment on text and images posted by others, which gives users a sense that they are interacting in real life. Mäntymäki and Salo (2010) found that social presence positively influences the use of computer-based products. It is also posited in this study that;

H2: Social presence is positively related to perceived enjoyment

Perceived Ease of Use

Davis (1989) defined perceived ease of use as the 'degree to which the prospective user expects the target system to be free of effort'. The current study therefore, defines it as the extent to which the potential users expect social networking sites to be easy to use. New technologies are often considered to be difficult to use and individuals hesitate to adopt them (Park and Lee, 2008). Perceived enjoyment in using online technologies may be augmented by the user friendliness of that particular site (Alarcón-del-Amo, Lorenzo-Romero and Gómez-Borja, 2012). It was suggested by Ernst *et al* (2013:9) that ease of use increases users' enjoyment, while technologies that are complicated decrease users' perceived enjoyment. Therefore, their use depends on their being user-friendly. The following hypothesis was thus postulated;

H3: Ease of use is positively related to perceived enjoyment

Extroversion

Extroversion is a 'positive emotion, urgency and tendency to seek out stimulation and the company of others' (Tosun &Lajunen, 2010). It is an individual's ability to engage with the environment (Davis et al., 1992). The literature (Chen, 2013; Harbaugh, 2010) confirms that character traits such as extroversion can induce enjoyment. Extroverts

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normally want to socialize, and prefer to be in the company of friends (Harbaugh, 2010). Extroverts, according to Baxter (2009), desire excitement and are ready to take risks and to act impulsively at times. On the other hand, introverts are quiet, reflective persons who prefer to be alone most of the time and do not desire excitement; they prefer to distance themselves from others. Extroverts can more successfully interact online socially than introverts (Chen, 2013; Tosun et al., 2010). In this study, it is postulated that individuals who are outgoing and socially confident enjoy their engagement in social networking sites. Thus, the following hypothesis was formulated;

H4: Extroversion is positively related to perceived enjoyment

Perceived Risk

Perceived risk is when individuals perceive a high potential loss of private information when they release personal information online (Malhotra, Kim and Agarwal, 2004). Wang, Chen, Herath and Rao (2009) indicate that internet risk perception shows one's lack of sense of security about using the internet. In a social networking site context, Krasnova, Spiekermann, Koroleva and Hildebrand (2010) defined perceived risk as 'beliefs about the potential uncertain negative consequences related to individual self-disclosure on social networking sites'. The effect of perceived risk on an individual's online behaviour towards internet technologies has been studied by a number of researchers (Pavlou, 2003; Malhotra *et al* 2004; Im, Kim and Han, 2008; Kesherwani and Bisht, 2012; Chen, 2013; Faqih, 2013; Ernst, 2014). Earlier studies (Chen, 2013; Ernst, 2014; Brosdahl and Almous, 2016) have indicated that the use of social networking sites is subject to spam, phishing, and stealing of sensitive information, and may lead to emotional discomfort and reputational damage. Chen (2013) and Krasnova *et al.* (2010) concluded that perceived risk negatively influences the use of social networking sites. On the other hand, Von Stetten, Wild and Chrennikow, (2011) did not find any relationship between perceived risk and the use of social networking sites. The following hypotheses were formulated to establish the effect of risk on the use of social networking sites;

H5: Internet risk perception is negatively related to trust in social networking sites
H6: Internet risk perception is positively related to perceived risk in the use of social networking sites to make travel arrangements
H7: Perceived risk in social networking sites is negatively related to the use of social networking site to make travel arrangements

In this study it is assumed that perceived risk, can also affect the relationship between perceived enjoyment and the use of social networking sites. Chen (2013:1221) states: 'When risk is perceived to be low, online user use behaviour may be largely motivated by fun and enjoyment that is experienced during the interaction. When risk is perceived to be high, an individual may become hesitant to use social networking sites regardless of their own assessment of enjoyment'. It was posited that:

H8: *Perceived risk in social networking siteuse negatively moderates the relationship between enjoyment and social networking siteuse to make travel arrangements*

Trust in Social Networking Sites

Staples and Webster (2008) discovered that trust has positive implications for social networking site use. Trust was defined by Mayer, Davis and Schoorman (1995:712) as 'the willingness of a party to be vulnerable to the actions of another party based on the expectations that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party'. Trust is regarded as an important element for successful online interactions (Dwyer *et al.*, 2007). A study by Shafique, Ahmad, Kiani and Ibrar (2015) confirms that trust influences one's decision to make online purchases. Grabner-Krauter (2013) indicated that users assess the trust-related attributes of members of other social networking sites before fully committing themselves to a particular site. However, the increasing cases of fraud in online environments are tarnishing the reputation of some social networking

sites (Demidova, 2014). Posey *et al.*(2010) confirmed that trust significantly influences social networking site use. It is postulated in this study that;

H9: Trust in social networking sites is positively related to the use of social networking sites to make travelarrangements

Against this background, the following model is proposed



SNS = Social Networking Site Figure 1: Proposed model Researchers' own construct

METHODOLOGY

The study used an exploratory research design that was quantitative in nature. According to William (2011), 'exploratory research identifies the boundaries of the environment in which the problems, opportunities or situations of interest are likely to reside and to identify the salient factors or variables that might be found to be of relevance to the research'. The target population was individuals who have used a social networking site to make travel arrangements and who reside in the Gauteng province. The study used the convenient sampling technique because, with convenience sampling, people are selected for the ease of their volunteering, or because of their availability or easy access (Bhattacherjee, 2012). The questionnaires were administered by trained field workers. A total of 330 questionnaires were completed; after screening, 325 questionnaires were retained for analysis.

The scales used in this study were adopted from the previous literature (see Appendix A) and were adjusted to suit the use of social networking sites to make travelling arrangements. A five-point Likert scale was used in this study, ranging from '1 = strongly disagree' to '5 = strongly agree' for all questions, apart from those that solicited background information. The first part of the questionnaire gathered background information. The last part of the questionnaire comprised questions that captured the use of social networking sites to make travel arrangements. A pilot test of the instrument was conducted with 10 people who use social networking site to check whether the measurement scales were easy to understand. After the pre-tests, the measurement instrument was improved so that all respondents could understand the requirements of the questionnaire.

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SPSS version 22 was used to analyse the captured and edited data. To assess the reliability of the scales, the Cronbach alpha test was performed. The convergent validity of the construct was tested using average variance extracted (AVE) and composite reliability. Once the convergent validity and reliability of the scales had been determined, the data was further analysed using structural equation modelling (SEM) through using partial least squares.

Model Fitness

The fitness of the measurement model was assessed through the use of Chi-square χ^2 statistics, the root mean square error of approximation (RMSEA), normative fit index (NFI), the Tucker-Lewis Index (TLI), and the goodness-of-fit index (GFI). The measurement model's obtained χ^2 value was 684.29, with 331degrees of freedom and a p-value of 0.66. The normed chi-square value $\chi^2 / (df=332)$ was 3.28. The RMSEA was 0.4, TLI was 0.96, and GFI was 0.90, while NFI was 0.97. According to Hu and Bentler (1999), for a measurement model to be fit, the TLI and the NFI need to be greater than or equal to 0.95, and the RMSEA is supposed to be below 0.6; while the GFI needs to be 0.9 or greater. The discriminant validity, reliability, and convergent validity of the model were also assessed. The constructs' reliability was assessed using the Cronbach alpha test and by computing composite reliability (CR), for which values must be greater than 0.7 (Nunnally, 1978). Table 1 shows that all the constructs scored Cronbach alpha values above 0.7 indicating that the scales used for this study were reliable (Hair *et al.*, 2010).

Convergent validity was tested using factor loading, composite reliability (CR) and average variance extracted (AVE). The results in Table 1 show that all items had a loading factor that exceeds 0.50, meaning that convergent validity is demonstrated (Hair *et al.*, 2010). All items had a CR value greater than 0.70 on all items, supporting the convergent validity of the variables (Hair *et al.*, 2010). The values of AVE for the constructs exceeded 0.50, implying that convergent validity is strongly demonstrated (Fornell and Larcker, 1981).

The discriminant validity of the measurement model was tested using the maximum shared squared variance (MSV) and average squared variance (ASV). If the MSV and ASV results are lower than the AVE results, discriminant validity is demonstrated (Schumarker and Lomax, 2010). Table 1 show that the MSV and ASV results are lower than the AVE values, implying that the model satisfied the requirements for discriminant validity. These results show that the model demonstrated high reliability (Shumarker and Lomax, 2010; Kline, 2011).

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Itom	Standard	Crophoch'sor			MCV	ACV
Item	Standard	Crondach su	CK	AVL	IVIS V	ASV
<i>a</i> : 1	loading	00	00	76	(1	26
Social presence	74	.89	.88	./6	.61	.36
SPI	.76					
SP2	.83					
SP3	.84					
Ease of use		.93	.90	.65	.53	.25
EU1	.77					
EU2	.67					
EU3	.88					
Extroversion		.79	.80	.58	.42	.20
EX1	.78					
EX2	.81					
EX3	.84					
Enjoyment		.88	.78	.67	.36	.19
EN1	.89					
EN2	.67					
EN3	.87					
Internet risk		.94	.96	.79	.55	.26
IR1	.81					
IR2	.90					
IR3	.77					
Privacy abuse		.82	.81	.73	.63	.31
PAC1	.68					
PAC2	.76					
PAC3	.83					
Trust		.79	.78	.63	.29	.16
Trust 1	.67					
Trust 2	.83					
Trust 3	.85					
Risk in SNS		.91	.87	.66	.41	.28
RS1	.66					
RS2	.75					
RS3	.63					
SNS use		.87	.88	.68	.24	.05
SNS use 1	.67					
SNS use 2	.59					
SNS use 3	71					

Table 1: Reliability, convergent validity, and discriminant validity

Note: Composite reliability (CR), average variance extracted (AVE), maximum shared squared variance (MSV), and average squared variance (ASV)

Analysis of the structural model-fit statistics was conducted using SEM with AMOS 22.0. To estimate the parameters, maximum likelihood was employed (Krasnova et al., 2010). The results demonstrated a good model fit as shown in Table 2 (Bollen-stine corrected P- value =0.520, CMIN/DN=1.857, GFI=0.961, NFI=0.98, Adjusted Goodness Fit Index=0.940, Standardised Root Mean Square Residual=0.026, RMSEA=0.46).

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Table 2: Fit malces for the structural model			
Fit Index	Observed Value		
Bollen-stine corrected P- value	0.520		
CMIN/DN	1.857		
GFI	0.961		
NFI	0.980		
AGFI	0.940		
SRMR	0.026		
RMSEA	0.460		

I white at I is interest for the bulker with the act	Table 2: Fit	indices	for t	the structural	model
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The Structural Model

The model was tested using structural equation modelling through partial least square (PLS). The main advantage of PLS is that it can be used to examine complex relationships (Chin, 1998).

The results of PLS in Figure 2 show that 48.1 percent of the variance in enjoyment is captured by the model, 50.1 percent of the variance in social networking site use is captured by the model, 30.2 percent of the variance in trust is explained by the model and 52.2 percent of the variance in perceived risk in social networking site use is explained by the model. These results show that the model can be used to explain the dynamics in social networking site use to make travelling arrangements.

According to the PLS results, social presence (β =.35, p<.001) and ease of use (β =.13, p<.05) both affected perceived enjoyment when using social networking sites, thus supporting hypotheses 2 and 3. The results show that extroversion (β =.019, p<.26) does not affect perceived enjoyment. Thus this result does not support hypothesis 4. It is also deduced from the results that internet risk perception (β =.-12, p<.05) negatively affects trust in social networking sites. Hypothesis 5 is therefore supported. Further, the results show that internet risk perception (β =.48, p<.001) has a positive influence on perceived risk in social networking sites, supporting hypothesis 6. Moreover, perceived enjoyment (β =.37, p<.001), trust (β =.21, p<.01), and the perceived risk of social networking sites (β =.-15, p<.05) have a significant impact on social networking site use. These results support hypotheses1, 7, and 9.

Hypothesis 8 was tested using the approach suggested by Chin *et al.* (1998), the PLS product- indicator to test whether the perceived risk of social networking sites can attenuate the correlation between enjoyment and the use of social networking sites. It was found that perceived risk moderates the relationship between enjoyment and the use of social networking sites (β = -.11, p<.05). Hypothesis 8 was therefore supported.



DISCUSSION

The results from this study show that perceived enjoyment (β =.35) is the main factor that motivates social networking site use to make travel arrangements. This result concurs with the findings of Park and Lee (2010), Chen (2013), Sago (2013), Shen (2012), and Ernst (2014). All of these earlier studies concluded that enjoyment is the key factor that motivates members to use particular social networking sites. Trust (β =.21) was also found to be another factor that affects social networking site use. This is in consistence with the findings of Posey *et al* (2010) which concluded that trust significantly affects the use of social networking sites.

This study also confirmed that social presence (β =.35) is the key factor which significantly influence perceived enjoyment. Ease of use (β =.13) was also found to have a significant influence on perceived enjoyment. This is consistent with the findings of Mantymaki and Salo (2010), Shen (2012), Chen, (2013), Park and Lee, (2008), Sago, (2013), Shen, (2013) who also concluded that social presence influences the rate at which individuals use social networks. In most social networking sites, individuals interact by sending each other messages and photos or videos, making them feel that they are in a real interaction.

The results also revealed that perceived risk in social networking site use (β =.-15) negatively impacts the use of social networking sites for travel arrangements. This concurs with the finding of Chen (2013) and Brosdahl and Almous (2016), whose studies also concluded that perceived risk is a major inhibitor of social networking sites usage. However, this finding is contrary to that of Ernst (2014), whose study found that the use of social networking sites is not affected by perceived risk. It was concluded that trust in social networking sites significantly influence usage of social networking sites for travel arrangements.

Contrary to the findings of previous studies (Chen, 2013; Harbaugh, 2010), this study could not find a significant relationship between personal traits such as extroversion (β =.09) and perceived enjoyment. The reason might be that some people may be extroverts but prefer to communicate with others face-to-face offline instead of using online sites. This study also permits the conclusion that the perceived risks (β =-.12) of internet use negatively affect trust in social networking site use to arrange travel. Members are more concerned about privacy issues when using social networking sites. It was also found that the perceived risks of internet use (β =.48) significantly influence the perceived risk of using social networking sites to make travel arrangements.

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Lastly, the results also confirmed that the presence of risk in social networking site use (β =.21) moderates the strength of the relationship between enjoyment and social networking site use in arranging travel. Members may enjoy using a particular site but if they perceive that using the site might be risky when making travel arrangements, they might hesitate to use that site.

For academic researchers, this study provides an understanding of the circumstances that motivate or hinder members from using social networking sitesto make travel arrangements. The present study also contributes to Social Exchange Theory by providing support for the suitability of SET as a powerful model, and for its efficacy in investigating the dynamics of online social interactions. Moreover, in this study an effort has been made to extend SET's original key constructs by aiming to explain an individual's use of social networking sites. Anew factor was identified and empirically validated: trust in social networking sites. Extending SET with this construct provides a deeper understanding of the dynamics behind the use of social networking sites to make travel arrangements.

RECOMMENDATIONS

The results of this research confirmed that SET, is one of the more useful theories for explaining user behaviour in social platforms such as social networking sites. SET posits that, before engaging in online activities, individuals weigh the cost of their participation, and decide whether or not to participate. This study established that perceived risk is one of the factors that keeps individuals from using social networking sitesfor travel arrangements and is perceived as the costof using the internet technologies. It is therefore recommended that tourism organisations and destination managers that use social networking sites to communicate with prospective customers should introduce security features and have a privacy statement to give users a sense of security. This can be done by inserting clearly-identified tools on the profile page that could help users to protect their privacy by blocking suspicious persons, or by removing unwanted comments from their walls.

Destination managers can also subscribe to cyber-intelligence services (for example, Cyveillance) that are normally used to detect on-line threats as this can help to reduce internet risk.

Perceived enjoyment was found to be one of the main factors that motivate members to participate in social networking sites. It is recommended that social networking site service providers ensure the sustainability of their sites by increasing the social presence features such as video calling through. To tourism managers who use social networking sites to market their services, it is advised that they must provide activities to engage customers on their site such lucky draws, games, and forums so that customers will enjoy visiting this site when searching for travel information.

This study also reveals that user-friendly website design (ease of use) has a positive influence on perceived enjoyment. If social networking site service providers concentrate on increasing the usability of their sites, they would be able to acquire more users. This can be done through designing simpler page views that only need to be clicked once and making the navigation tools consistent both where and how they appear on the site wall to increase the user's ability to find relevant information more quickly. To tourism managers providing links to valuable information which is relevant to travellers which are easy to access assist in attracting customers.

Trust in social networking sites was also found to be another factor that significantly influences usage of social networking sites for travel arrangements. Tourism managers should always post valuable information about the type of service they offer (accommodation type, charges, amenities and services on special offer) if they want to attract more customers to their social networking websites. Customers should also be assured that when they use social networking sites to search for travel information, they would get authentic information.

LIMITATIONS

The limitations of the current study are as follows. Firstly, the population of the study comprises individuals in only one province of South Africa; and this might not give a true reflection of the actual use of social networking

sites in South Africa. It is therefore recommended that a larger sample, covering a larger geographical area of South Africa, be used in future. Secondly, since the majority of people who participated in this survey were aged between 23 and 28 years, this might not provide a comprehensive view of how older age groups perceive the use of social networking sites to arrange travel. Future research might need to target age groups older than 30, allowing a comparison with the younger age groups to be made.

CONCLUSION

This study's main aim was to establish what motivates South Africans to use a particular social networking site when making their travel arrangements and what hinders them from doing sousing Social Exchange Theory. It was established that social presence and ease of use jointly affect perceived enjoyment. The use of social networking sites to make travel arrangements was found to be positively influenced by perceived enjoyment. Therefore, social networking site service providers should focus more on improving the features of their sites to increase enjoyment. This will ensure the sustainability of these sites. The study further concluded that the strength of the relationship between social networking site use and perceived enjoyment is affected by the presence of perceived risk. Considering this, social networking site service providers should put policies in place that reassure individuals that their personal information is not at risk. Finally, it was established that SET is a model that can be used to assess individual use of social networking sites to make travel arrangements.

REFERENCES

- Alarcón-del-Amo, M.D. C., Lorenzo-Romero, C. and Gómez-Borja, M.-A. 2012. Analysis of acceptance of social networking sites. African Journal of Business Management, 6(29):8609-8619.
- Al-Ghaith, W.2015.Applying the technology acceptance model to understand social networking sites usage: Impact of perceived social capital. International Journal of Computer Science & Information Technology (IJCSIT), 7(4):105-117.
- Baker, R.K. and White, M. 2010.Predicting adolescents' use of social networking sites from an extended theory of planned behaviour perspective. Computers in Human Behaviour, 26(6):1591-1597.
- Bataineh, B.Q., Al-Abdallah, G.M. and Alkharabsheh, A.M. 2015. Determinants of continuance intention to use social networking sites SNS's: Studying the case of Facebook. International Journal of Marketing Studies, 7(4):121-135.
- Baxter, A. 2009. Are social networking websites better for introverts or extroverts? Available from: http://www.associatedcontent.com/article/1453268/are_social_networking_web-sites_better.html?cat=9. Accessed 15 January 2016.
- Bhattacherjee, A. 2012. Social science research: Principles, methods, and practices. Textbooks Collection, Book 3.Available from: http://scholarcommons.usf.edu/oa_textbooksAccessed 3 February 2016.
- Blasco-Arcas, L., Hernandez-Ortega, B. and Jimenez-Martinez, J. 2014. The online purchase as a context for cocreating experiences: Drivers of and consequences for customer behaviour. Internet Research, 24(3):211-242.
- Bowen, B. and Bowen, D. 2016. Social media: A strategic decision making tool. Journal of Global Business & Technology, 12(1): 48-59.
- Boyd, D.M. and Ellison, N.B. 2007. Social network sites: Definition, history, and scholarship. Journal of Computer-Mediated Communication, 13:210-230.
- Brosdahl, D.J.C. and Almous, M. 2016. Risk perception and Internet shopping: Comparing United States and Saudi Arabian consumers. Journal of Management & Market Research, 11(2):1-17.
- Chen, R. 2013. Member use of social networking sites an empirical examination. Decision Support Systems, 54(3):1219-1227.
- Chin, W. 1998. Issues and opinions on structural equation modeling. MIS Quarterly 22(1):7-10.
- Choi, G. and Chung, H.2013. Applying the technology acceptance model to social networking sites (SNS): Impact of subjective norm and social capital on the acceptance of SNS. International Journal of Human-Computer Interaction, 29(10):346-354. DOI:10.1080/10447318.2012.756333.

DRIVERS OF THE USE OF SOCIAL NETWORKING SITES FOR TRAVEL ARRANGEMENTS IN SOUTH AFRICA: TEST OF THE SOCIAL EXCHANGE THEORY

- Davis, F.D. 1989. "Perceived usefulness, perceived ease of use, and user acceptance of information technology," MIS Quarterly, Vol.13, No.3: 319-339,
- Davis, F.D., Bagozzi, R.P.and Warshaw, P.R. 1992. Extrinsic and intrinsic motivation to use computers in the work place. Journal of Applied Social Psychology, 22(14):1111-1132.
- Demidova, N. 2014. Social network frauds. Available from: www.securelist.com/analysis/publication/63855/socialnetwork-frauds. Accessed15 February 2016.
- Dwyer, C., Hiltz,S.R.and Passerini, K.2007. Trust and privacy concerns within social networking sites: A comparison of Facebook and MySpace. AMCIS 2007 Proceedings. Paper 339:12-31.
- Elbanna, A. 2010. From intention to use to actual rejection: The journey of an e-procurement system. Journal of Enterprise Information Management, 23(1):81-99.
- Emerson, R.M. 1976. Social exchange theory. Annual Review of Sociology, 2:335-362.
- Ernst, C.P.H. 2014. Risk Hurts Fun: The Influence of Perceived Privacy Risk on Social Network Site Use. Twentieth Americas Conference on Information Systems, Savannah, 2014.
- Ernst, C.P.H., Pfeiffer, J. and Rothlauf, F. 2013.Hedonic and utilitarian motivations of social network site adoption. Working paper, Johannes Gutenberg University, Mainz.
- Faqih, K.M.S. 2013. Exploring the effects of perceived risk and internet self-efficacy on consumer online shopping intentions: Perspectives of technology acceptance model. International Management Review, 9(1):345-356.
- Fornell, C. and Larcker, D.F. 1981. Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18:39-50.
- Fulk, J., Schmitz, J. and Power, G.J. 1987. A social information processing model of media use in organizations. Communication Research, 14(5):520-552.
- Grabner-Krauter, S. and Bitter, S. 2013. Trust in online social networks: A multifaceted perspective. Forum for Social Economics, 44(1):48-68.
- Hair, J., Anderson, R., Tatham, R. and Black, W. 2010. Multivariate data analysis (7thed.) Upper Saddle River, NJ: Prentice Hall.
- Harbaugh, E.R. 2010. The effect of personality styles (level of introversion-extroversion) on social media use. The Elon Journal of Undergraduate Research in Communications, 1(2):70-86.
- Heenrink, M.,Krose, B., Wielinga, B.and Evers, V. 2008. Enjoyment, intention to use and actual use ofa conversational robot by elderly people. Proceeding of the 3rdACM/IEEE International Conference on Human Robot Interaction, New York, NY, 113-120.
- Hsu, M., Chuang, L. and Hsu, C. 2014. Understanding online shopping intention: The roles of four types of trust and their antecedents. Internet Research, 24(3):106-139.
- Hu, L. and Bentler, P.M. 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling, 6(1):1-55.
- Im, I., Kim, Y.and Han, H. 2008. The effects of perceived risk and technology type on users' acceptance of technologies. Information & Management, 45:1-9.
- Ipsos. 2014. 63 percent of South Africans are not online. Available from: http://www.ipsos.co.za/SitePages/63%20percent%20of%20South%20Africans%20are%20not%20online.as px.Accessed 11 March 2016.
- Jalilvand, M.R and Samiei, N. 2012. The impact of electronic word-of-mouth on a tourism destination choice: Testing the theory of planned behaviour (TPB). Internet Research, 22(5):591-612.
- Jarvenpaa, L. and Staples, D.S. 2010. Exploring perceptions of organizational ownership of information and expertise. Journal of Management Information Systems, 18(1):151-183.
- Kate, S.T., Haverkamp, S., Mahmood, F. and Feldberg, F. 2010. Social network influences on technology acceptance: A matter of tie strength, centrality and density. BLED 2010 Proceedings. Paper40.23 June, Bled, Slovenia.
- Kesharwani, A. and Bisht, S.S. 2012. The impact of trust and perceived risk on internet banking adoption in India: An extension of technology acceptance model. International Journal of Bank Marketing, 3(4):303-322.
- Kline, R.B. 2011.Principles and practice of structural equation modelling (3rded.). New York & London:The Guilford Press.
- Krasnova, H., Spiekermann, S., Koroleva, K.and Hildebrand, T. 2010. Online social networks: Why we disclose. Journal of Information Technology, 25(2):109-125.
- Kumar, N. and Benbasat, I. 2006. The influence of recommendation and consumer reviews on evaluations of websites. Information Systems Research, 17(4):425-439.
- Livingstone, S.2008. Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. NewMedia & Society, 10(3):393-411.

- Macnamara, J. and Zerfass, A. 2012. Social media communication in organizations: The challenges of balancing openness, strategy, and management. International Journal of Strategic Communication, 6(4):287-308.
- Malhotra, N.K., Kim, S.S. and Agarwal, J. 2004. Internet users' information privacy concerns (IUIPC): The construct, the scale, and a causal model, Information Systems Research, 15(4):336-355.
- Mäntymäki, M.and Salo, J.2010. Trust, social presence and customer loyalty in social virtual worlds. In: 23rdBled eConferencee Trust: Implications for the individual, enterprises and society, Bled, Slovenia 20-23 June.
- Mayer, R.C, Davis, J.H & Schoorman, F.D. 1995. An integration model of organizational trust. The Academy of Management Review, 20 (3), 709-734.
- Mehra, G. 2015. 91 leading social networking sites worldwide .Available from: www.practicalecommerce.com/articles/86264-91-leading-social-networks-worldwide. Accessed 08 March 2016.
- Nunnally, J.C. 1978. Psychometric Theory, Mcgraw-Hill College; 2nd edition, 701 pages.
- Omotoso, K. 2012. Social media and social exchange theory and strategic contingencies theory. Available from: http://www.vanguardngr.com/2012/12/social-media-and-social-exchange-theory-and-strategiccontingencies-theory-1.Accessed 08 March 2016.
- Park, D.H. and Lee, J. 2008. E-WOM overload and its effect on consumer behavioral intention depending on consumer involvement. Electronic Commerce Research and Applications, 7(4), 386-398.
- Pavlou, P.A. 2003. Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. International Journal of Electronic Commerce, 7(3):69-103.
- Pelling, E.L and White, K.M. 2009. The theory of planned behaviour applied to young people's use of social networking web sites. Cyberpsychology Behaviour, 12(6):755-759.
- Posey, C., Lowry, P.B., Roberts, T.L. and Ellis, T.S.2010.Proposing the online community self-disclosure model: The case of working professionals in France and the U.K who use online communities. European Journal of Information Systems, 19 (1):181-195.
- PracticalEcommerce.2011.Beyond Facebook: 74 popular social networks worldwide.Available from: http://www.practicalecommerce.com/articles/2701-Beyond-Facebook-74-Popular-Social-Networks-Worldwide.Accessed 07 March 2016.
- Rauniar, R., Rawski,G., Yang,J. and Johnson, B. 2014. Technology acceptance model (TAM) and social media usage: An empirical study on Facebook. Journal of Enterprise Information Management, 27(1):6-30.
- Sago, B. 2013.Factors influencing social media adoption and frequency of use: An examination of Facebook, Twitter, Pinterest and Google+. International Journal of Business and Commerce, 3(1):1-14.
- Shafique, M.N., Ahmad, N., Kiani, I. and Ibrar, M. 2015. Exploring relationship among factors of virtual communities trust and buying in Pakistan. International Letters of Social Humanistic Sciences, 49:115-122.
- Shen, J. 2012. Social comparison, social presence, and enjoyment in the acceptance of social shopping websites. Journal of Electronic Commerce Research, 13(3):198-212.
- Shu, W. And Chuang, Y. 2011. The perceived benefits of six-degree-separation social networks. Internet Research, 21(1):26-45.
- Schumacker, R.E. and Lomax, R.G. 2010. A beginner's guide to structural equation modelling. New York:Routledge.
- South Africa Social Media Landscape. 2015. Facebook bridges South Africa gender divide. Available from www.worldwideworx.com/wp-content. Accessed 20 October 2015.
- Staples, D.S. and Webster, J. 2008. Exploring the effects of trust, task interdependence and virtualness on knowledge sharing in teams. Information Systems Journal, 18(6):617-640.
- Tosun, L.P. and Lajunen, T. 2010. Does internet use reflect your personality? Relationship between Eysenck's personality dimensions and internet use. Computers in Human Behavior, 2(6):162-171.
- Venkatesh, V. and Davis, F.D. 2000. A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46(2):186-204.
- Von Stetten, A., Wild, U. and Chrennikow, W. 2011. Adopting social network sites: The role of individual IT culture and privacy concerns, AMCIS Proceedings, Paper 290.
- Wang, J., Chen, R., Herath, T. and Rao, H.R. 2009. Visual e-mail authentification services: An investigation of the effects on e-mail use. Decision Support Systems, 48:92-102.
- William, N. 2011. Research methods: The basics. Oxford: Routledge.
- Writter, S. 2015. Most popular social platforms in South Africa. Available from:
 - www.mybroadband.co.za/new/internet/117284-most-popular-socialplatform-in-south-africa.Accessed 07 March 2016.

DRIVERS OF THE USE OF SOCIAL NETWORKING SITES FOR TRAVEL ARRANGEMENTS IN SOUTH AFRICA: TEST OF THE SOCIAL EXCHANGE THEORY

- Yuksel, A. 2007. Tourist shopping habitat: Effects on emotions, shopping value and behaviors. Tourism Management, 28:58-69.
- Zoonen, W., Verhoeven, J.W.H.and Elving, W.J.L. 2014. Understanding work related social media use: An extension of the theory of planned behaviour. International Journal of Management, Economics and Social Sciences, 3(4):164-183.

Item	Measurement	Reference
Ease of use	This social networking website is easy to use	Chen (2013)
	My interaction with this social networking site is clear and	Park & Lee (2010)
	understandable	1 alk & Lee (2010)
	Interacting with this social networking site does not require	
<u> </u>	a lot of my mental effort	
Social presence	There is a sense of human contact on this social networking	Kumar & Benbasat
	There is a sense of personalness on this social networking	(2006)
	site	Mantymaki & Salo
		(2010)
	There is a sense of human warmth on this social networking	(2010)
	site	
Extroversion	I talk a lot to different people	Harbaugh (2010)
	I enjoy social events	Tosun and Laiunen
	I like meeting new people	10sun anu Lajunen
		(2010)
Enjoyment	Spending time on this social networking site is exciting	Chen (2013)
	Spending time on this social networking site is pleasant	
	Spending time on this social networking site is interesting	
Internet risk	In general, it is risky to engage in Internet activities	Wang et al. (2009)
perception	I feel unsafe in using [the] Internet	-
	Use of the Internet can result in loss of critical information	Chan (2012)
		Chen (2013)
Privacy abuse	I feel that the information I share on social network sites can	Dwyer <i>et al.</i> (2007)
concern	be used in a way I did not foresee	Livingstone (2008)
	I feel that the information I share on social network sites can	
	information with	
	I feel that the information shared on social network sites can	-
	be misused by others	
Perceived risk	There is high potential for loss associated with using social	Von Stetten <i>et al</i> .
	networking sites	(2011)
	There is uncertainty associated with use of social	(2011)
	networking sites	Wang et al. (2009)
	Using this social networking site can result in many	
Transit in an air l	unexpected problems	
I rust in social	Social networking sites are trustworthy	Staples and Webster
networks	Social networking sites alert you when your information is	(2008)
	abused	
Actual use	Using this social networking site is part of my trip	Chen (2013)
Lietuur upe	organisation routine	

Appendix A: Operationalisation of constructs

I regularl	y log into this social networking site when
organisin	g my trips
I visit thi	s social networking site frequently when searching
for travel	information

BIG DATA AND HRIS USED BY HR PRACTITIONERS: EMPIRICAL EVIDENCE FROM A LONGITUDINAL STUDY

Andries J Du Plessis and Leon De Wet Fourie

ABSTRACT

This article stems from a longitudinal research project over twenty years. The influence of 'Big Data' on the HR practitioner's roles, goals and activities is huge in adding value to the organisation. HRM could increase its value add in more functions and areas of HR as well as the strategic influence within the organisation, by delivering predictive analytics. HR practitioners in New Zealand have been exposed to big data and the use thereof through their HRISs. The quantitative methodology adopted was an e-survey; a questionnaire containing structured closed questions. The target population was limited to 635 HRINZ members. Fundamental capabilities of the HRIS should be used to assist in delivering ultimate customer service and a good service to their employees. Recommendations are proposed for HR practitioners and managers in the use of big data such as to use analysts to analyse the big data to get useable knowledge to make wise decisions in future. Conclusions form the last section.

Keywords: Human Resources, Practitioners, Big Data, HRIS, Workforce Productivity

INTRODUCTION

Data is usually gathered by organisations and then analysed to get information to use for various reasons depending what their business is. Data becoming information can identify or point out business trends, prevent disasters, prevent diseases in countries, combat crime and so on. This sounds easy to do but analysts meet difficulties with large data sets in areas including Internet search, finance and business informatics.

The term 'Big Data' is used broadly for data so large or complex that traditional data processing applications are inadequate. Challenges include analysis, capture, curation, search, sharing, storage, transfer, visualization, and information privacy. The term often refers simply to the use of predictive analytics or other certain advanced

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methods to extract value from data, and seldom to a particular size of data set. Another view is that big data is an evolving term that describes any voluminous amount of structured, semi-structured and unstructured data that has the potential to be "mined" for information. Although big data does not refer to any specific quantity, the term is often used when referring to petabytes and exabytes of data (Rouse, 2015).

In today's global economy Human Resource (HR) practitioners must be prepared to meet the considerable challenges and expectations posed by the continuing gathering of data, the analysing of it to become information leading to knowledge and then the using of the knowledge to make wise decisions. The influence of 'Big Data' on the HR practitioner's roles, goals and activities is huge in how their function is creating and adding value to the organisation. An example of what is meant is when an organisation is formed in order to fulfill a specific mission or purpose but cannot be achieved unless the organisation searches for and selects the best potential employee with the right skills, knowledge and aptitudes (KSAs) for each identified job or position. It is imperative, therefore, that an organisation would design and implement an appropriate information system in order to attract the best suitable employees in order to achieve its desired goals and objectives. This is where big data is used by the HRM department if they have implemented a human resource information system (HRIS) (Nel, Werner, Botha, Du Plessis, Mey, Ngalo, Poisat & Van Hoek, 2014).

HR practitioners manage the most valuable asset in their organisations, namely employees, in order to achieve their organisational goals (Du Plessis, 2015a). Therefore, HR practitioners should look for opportunities to build appreciation and application into the strategic, tactical and operational planning of the organisation, and they should also keep this in mind when advertising vacant positions. HR practitioners play the leading role in providing support in designing job specifications, placing the correct advertisements, executing the selection and interviewing process, signing employment contracts with job descriptions and inducting the newly appointed employees. In smaller organisations these activities are generally done by HR consultants on behalf of the organisation. They also advise on the remuneration scale and level which will fit the employee the best. The employee's skills and expertise play a huge role in this decision, hence the use of collected data and information or their HRIS.

HR practitioners in New Zealand (NZ) have been exposed to big data and the use thereof through their HRISs in adding value in organisations to be successful. The roles and activities of both the employers and HR practitioners have changed over the years and this study endeavours to shed more light on the use of big data and HRIS. In this paper six closely related themes are analysed and discussed: Knowledge and the use of HRIS systems, succession planning for managers, assessing employee attitudes, employee training and development, workforce productivity and output, and managing of labour costs.

PROBLEM STATEMENT

From the research problem, taking into account the broader focus on HRs involvement in their organisations in adding value, one realises that there is a need to consider: To what extent HR practitioners in NZ organisations use Big Data and the HRISs available to contribute to the success and competitiveness of organisations in the current situation.

OBJECTIVES OF THIS STUDY

The past decades several studies were done in NZ among HR practitioners' roles, goals, and activities including their competencies, future capabilities, and challenges. The ultimate objective of this study is to determine the extent to which the current contribution of the HRM department is in using Big Data and their HRIS to achieve their organisation's goals. The current study's data is used and with previous studies' predictions by HR practitioners. By comparing this study of NZ organisations with previous studies add more value and it informs the reader of how changes have taken place over the past almost twenty years in NZ's HR profession.

METHODOLOGY

Background

A very comprehensive HRM questionnaire covering 358 items to identify HRM and management trends was jointly compiled in New Zealand and Australia in 1994: (IPMNZ, 1994). The same questionnaire was used with permission for a survey to identify the future competencies and roles of HR in those countries for the year 2000 by the Human Resource Institute of New Zealand. The same questionnaire was modified and refined and used again in 2000 by Burchell (2001) in association with the Human Resource Institute of New Zealand (HRINZ) to determine a future perspective on human resources in 2010 in New Zealand. The final section of the said questionnaire sought to obtain demographic information from respondents. The same questionnaire was used with permission after minor editorial modifications for an identical survey in South Africa in the last quarter of 2002. The topics covered in the questionnaire included human resource goals, roles and activities, and so forth. Due to the magnitude of the survey only a small section is analysed and reported upon in this paper.

The quantitative methodology adopted was an e-survey; a questionnaire containing structured closed questions. This involved the selection of a sample of people from the HR practitioner population in NZ to ascertain how factors differ, and to make inferences about the population, or in other words generalising from sample to population. Reliability of this study was seen as high (15.4% responded) as previous leading HRM studies conducted in NZ were successful with a response rate of 41 %, 11% and 34 % respectively.

Sample Selection

The study focused on HR practitioners in NZ organisations who are registered as members of the Human Resources Institute of New Zealand (HRINZ). HRINZ have 3600+ individual members who are involved in the management and development of HR in private and public sector organisations throughout NZ. The target population was limited to HRINZ members that had registered to participate in HR research requests that HRINZ provided links to; the total number of HRINZ members in this category was 635. A total of 119 members responded but 98 questionnaires were fully completed and usable resulting in a 15.4% response rate.

Data Collection

The data was collected via the e-survey, which was a repeat of previous studies and therefore a very important longitudinal study. The invitation to participate went to 635 members of HRINZ.

Questionnaire

The questionnaire consisted of questions to adequately explore each of the HR themes researched in this study. All the questions in the questionnaire were closed questions. Only six closely related themes are covered in this paper but due to the size of the study and length limitation for this paper not all the information could be discussed. The Tables reflect the research questions used in this paper, and the rationale for using the six specific themes is discussed later.

LITERATURE REVIEW

Background

Du Plessis (as cited in Du Plessis et al, 2015a: 273) is of the opinion that collected data becomes information, which then leads to knowledge and gives us the wisdom to make wise decisions. These decisions are made in order for the organisation to be one step ahead of its competitors. Wise decisions should form part of the strategic plans that organisations make for their future operations. He goes on by saying that the HR department should always be collecting data so that it is able to make wise decisions. The term 'big data' was basically unknown until 2013 but it has become a buzz word, and it is now applied to almost every facet of a business. Big data offers HRM major opportunities to increase its value add in more functions and areas of HR as well as the strategic influence within the organisation, by delivering predictive analytics. Although big data doesn't refer to any specific quantity, the term is often used when speaking about petabytes (approximately a thousand terabytes) and exabytes (exa means one billion billion, or one quintillion bytes that are a billion gigabytes) of data, much of which cannot be integrated easily.

Because big data takes too much time and costs are huge to load into a traditional relational database for analysis, new approaches to storing and analysing data have emerged that rely less on data schema and data quality. Instead, raw data with extended metadata is aggregated in a data lake and machine learning and artificial intelligence (AI) programs use complex algorithms to look for repeatable patterns. Big data analytics is often associated with cloud computing because the analysis of large data sets in real-time requires a platform such as Hadoop (a free, Java-based programming framework that supports the processing of large data sets in a distributed computing environment) to store large data sets across a distributed cluster and MapReduce (software framework that allows developers to write programs that process massive amounts of unstructured data in parallel across a distributed cluster of processors or stand-alone computers) to coordinate, combine and process data from multiple sources according to Rouse (2015).

Dunn, (as cited in Carty, 2014) says that to harness big data, HRM needs to change the way they collect data. They should think of hiring more data specialists, make sure that the data is relevant, and break down what big data has to offer about how specific departments are performing, and are likely to perform, workforce productivity, labour costs, training and development, succession planning and even assessing employee attitudes. Boese (as cited in Carty, 2014) is of the opinion that if organisations fail to do this HRM's view on the use of big data will never change. It is now the time for HRM to stop reporting and start predicting. The biggest opportunity that big data offers to HRM is in predictive analytics around high-volume, repeatable processes, and the example Dunn uses is recruitment (as cited in Carty, 2014). HRM has plentiful access to data, for example payroll records, training and development, succession planning, employees attitudes, or data on absence and staff turnover. It needs to be more purposeful in collecting this data. Dunn (as cited in Carty, 2014) also says that HRM must change how they use data. HRM relies on data to be able to do proper and useful planning for the success of the organisation. According to Dunn, HRM should take into consideration the three Vs of big data (as cited in Carty, 2014), namely:

- 1. Volume: the huge amount of data generated and received from various sources;
- 2. Velocity: the need to analyse and to take action where and when necessary; and
- 3. Variety: the ability to analyse data in a range of formats.

One could add to this list a fourth V, namely veracity — whether the data is reliable and accurate, according to Dunn. HR practitioners should learn how to analyse data in both structured and unstructured formats. Structured data are data stored in a system in a defined, orderly way (such as traditional absence records). Unstructured data are data spread across multiple media and lacking unifying structure (such as video CVs and social media discussions). HRM needs new techniques to improve the understanding of the dynamics enabling HRM to integrate into organisational strategy. This could allow HR professionals to better prepare for situations in which the HR specialist could take charge of facilitating HRM integration and becoming a strategic partner of the organisation. HRM needs a team and resources that are coordinated well in order to perform effectively and efficiently.

Big Data and HR

According to Badenhorst (2016) HR practitioners should ensure that line managers do periodic performance appraisals (twice a year, for example) to assess the performance and attitudes of their employees as well as the assessment of training and development requirements, labour costs and productivity, especially after organisational changes have taken place. Du Plessis (2015b) is clear about the fact that HR departments should have the capability and capacity to deploy resources to achieve organisational goals. The HR department can ensure that the organisation stays one step ahead of its competitors and maintains its competitive advantage. Firstly, the basic or fundamental capabilities of the HRIS should be used to assist in delivering ultimate customer service and a good service to their employees as well. The process of HRIS begins with the recruitment of the right person for the right job at the right time, so that the employee adds value to the organisation throughout his or her employment period. HRM bases their strategic planning on what resources they have available, where these resources are, and how readily they are available; all these records and data could be retrieved from their HRIS (Grant, Butler, Orr and Murray, 2014).

Figure 1, below, depicts the strategic influence of big data on the organisation. Du Plessis (2015a) describe Big Data as data that has been collected by the organisation in various ways. It could be from internal surveys (larger organisations) or even through firms specialising in research and collecting of data. This data is then entered by the HR department into their HRIS and is available, after it was analysed, for strategic planning by HR and the organisation. Structure follows strategy and the organisation's goals, vison, mission, objectives and even the organisational culture is determined by the data which is now in a usable form namely knowledge. The mentioned strategy further leads to HR activities and the organisation's resources coordination, which leads to policies, procedures and so on to be implemented (or amended) and it has a huge influence on the organisation's revenue. A successful organisation has satisfied and successful employees and due to their success the employees could be remunerated at market level or even higher depending on the industry and the quality that is the knowledge, skills and abilities or attributes (KSAs) of employees.



Figure 1: Strategic influence of big data on the organization

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Du Plessis and Frederick (2012) refer to the importance of technology in any management operation. The challenge for HRM is to develop and introduce a policy and paper framework and system that enhance the partnership between them, supervisors, and employees. Advances in technology always present the promise of cost savings and doing work faster and more effectively.

Big Data and Strategic Implications

Just as information is fundamental to the operation of any management system, so is strategic planning. Technology has an immeasurable influence on strategic planning as organisations make more use of HRISs. Big Data (information) is a key component of any organisation's HRIS. They collect, analyse and communicate the information (see Figure 2) to all concerned in the organisation and as mentioned this becomes knowledge and eventually wisdom to make strategically wise decisions. The implication is that organisations now have the capacity for decentralised coordination. The strategic plans need to be articulated, normally through a strategic planning process that takes place annually or twice per year. The implication of this strategy formulation process is that it is an important vehicle to achieve coordination in the organisation to bring together the Big Data, information, and knowledge from different departments or divisions of the organisation. The strategic impact of this is that it ensures consistency between the decisions made on different levels and different departments of the organisation. The result is commitment from all managers and decision makers in the organisation to ensure their success. Strategic plans come to nothing unless it has an impact on the ways managers behave within the organisation. For example, HRM has the strategic task of establishing remuneration schemes and benefits for employees, as explained in Figure 1 above. Along with this are performance targets, organisational goals, and strategic capabilities and skills that form part of the strategic plan (Du Plessis, 2015a). Bowen and Bowen (2016) are of the opinion that business and organisational environments are influential on the effectivity of data collected as well as its analysis if not done by experts.

Big Data and HRIS

Many human resources information system (HRIS) products are available on the market for both large and smaller organisations. These products have become more affordable and easier to use, and allow organisations to customise them to their own unique needs and requirements. Du Plessis (as cited in Nel et al, 2012) are of the opinion that the HRIS forms part of the organisation's larger management information system (MIS), which also includes accounting, production, marketing and other functions. The HRIS is not only used to improve information and HR processes, but also as a diagnostic and analytical tool to determine the extent to which organisational goals are achieved. A sound HRIS maps out all jobs and organograms within the HRIS system and job design and proper structures enables tasks to be easier for the HR practitioner. In the case of a resignation for example it should be reflected in all reports automatically for the ease of organisational reporting, including the scheduling of exit interviews with the HR practitioner and other termination procedures to be followed.

Today, HRM is more involved with the succession planning of the organisation and invests more in training and development. HRM is also more up to date with market related salaries, incentive schemes and the use of electronic recruitment to reach a global pool of possible candidates according to Du Plessis and Sukumaran (2015). The modern HR practitioner in New Zealand is more of a HR generalist with a good understanding of business and organisational strategies, and responsible for all HRM functions and activities. HR generalists have in-depth knowledge of every HR functional area, employment relations (particularly employment law), management, safety and health, employment equity, and also the global workforce (Du Plessis and Sukumaran, 2015).

The global economic climate has become increasingly turbulent, businesses seek to keep ahead of the competition by working faster and smarter; by raising productivity levels per employee while, at the same time, increasing innovation and minimising costs (Chavan, 2009). Employment security is no longer guaranteed, and loyalty from employees is no longer a given. Companies have always faced many challenges, but at no other time have the business challenges become more pronounced, with rapid and volatile change, as in the 21st century (Du Plessis, 2014;

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Jørgensen, Owen, & Neus, 2009). Managers face complex business environments in which there are many competing interests. Stephens, Manrodt, Ledlow, Wilding and Boone (2014) provide ten lessons that managers could apply to increase or transform the organisations performance. Working out how to make the best use of the intellectual capital they have at their disposal in the form of existing productivity tools and employee knowledge to drive productivity can be a major challenge for many of the managers (Du Plessis, 2014). This research considers the use of Big Data and the HRISs used in organisations to use this Big Data of HR that can be used to drive high workplace productivity in a global environment.

ANALYSIS OF THE RESULTS

Comparison of the Profile of the Respondents with Previous Studies in NZ

A study was executed in 2000 by Burchell (2001) in association with HRINZ to determine a future perspective on HR in 2010 in NZ. Using five related themes a study was executed in 2008 by Paine (2008) and a repeat of the 2000 study was executed in 2010 by Nel and Du Plessis (Nel & Du Plessis, 2011). Some of the comparisons are depicted in Table 1, 2 and 3 below. Paine (2008) used themes not discussed in this article therefore her comparisons are not reflected in the Tables below.

The profile of the respondents is important to add value to their opinions. In the current study in NZ, the most frequent title was HR Manager (46.7%), and the next most common title was HR non-management (16.7%). Those two titles accounted for 63.4% of the reported titles. There was a huge and unexpected increase in the consultants' category from 14% in 2000 to 21.7% in 2010. There was a sharp decline in the line managers with HR functions who responded in 2000 from 10% to only 1.7% in 2010. It can be deduced that more organisations make use of consultants than allowing their line managers to execute HR functions and activities, see Table 1, below.

Profession	NZ profile 2000	NZ profile 2010
HR (officer to director)	72.0%	63.4%
Business (line managers to CEO)	10.0%	1.7%
Consultants	14.0%	21.7%
Academic (all tertiary institutions)	4.0%	8.2%
Other	0%	5%
TOTAL	100%	100%

Table 1. Profile of respondents by profession in New Zealand in 2000 and 2010

In New Zealand most organisations (83%) have fewer than 10 employees. In this study, the participants are from different sized organisations (see Table 2 below); the following groupings were compiled for analysis: small organisations with fewer than 100 employees (0-99); medium 100 to 499 employees, large is 500 or more employees. It should be noted that New Zealand is predominantly a country of small businesses, with 93.3% of enterprises employing 19 or fewer people ("SMEs in NZ: Structure and Dynamics," 2006).

Number of employees	NZ profile	NZ profile
in organisation	2000	2010
Fewer than 10	1.0%	11.7%
10-49	4.0%	8.3%
50 – 99	9.0%	5.0%
100 – 499	40.0%	28.3%
500 or more	46.0%	46.7%
TOTAL	100%	100%

Table 2. Profile of respondents by organisation size in NZ in 2000 and 2010

In Table 2 above, the profile of the respondent's organisation size employing 500 or more employees for 2000 is almost identical to the 2010 study and the group 50 to 99 employees is close with only 4% less in 2010.

Table 3 below compares the six themes used in this paper as it was current in 2010 and predicted for 2020 by the respondents. None of the themes were closely predicted and none in reality are close as per the responses from the respondents. The two categories are combined: "very important" and "critical for success".

Closely related Themes	NZ 2010	NZ predict
	actual	for 2020
Knowledge and use of HRIS systems	16.7%	60.0%
Succession planning for managers	40%	66.7%
Assessing employee attitudes	20.0%	48.4%
Employee training and development	48.3%	76.6%
Workforce productivity and output	58.3%	80.0%
Managing of labour costs	50.0%	56.7%

Table 3. Six closely related themes - two categories: very important to critical for success

Knowledge and Use of HRIS Systems

Knowledge and use of HRIS systems in the day-to-day activities of organisations seems to get momentum. The actual figure for 2010 was 16.7%. Interestingly the figure increased with 43.3% as predicted for the future (being 2020). It confirms the earlier statement that knowledge and use of HRIS systems get momentum and it can be said that employers regard Big Data more and more valuable for the success of their businesses. For 60.0% of the respondents, it is very important to critical for success in 2020. At the other end of the spectrum, only 16.7% of the respondents regarded it more important in 2010.

Succession Planning for Managers

The respondents were asked to state how important succession planning for managers is now (being 2010) and for the future (being 2020). The actual figure for 2010 was 40% of the respondents that regarded succession

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planning for managers currently (being 2010) important and a further 26.7% on top of this figure regarded it important and critical for success in 2020 to a total of 66.7%. Organisations need to plan for the future as was pointed out in Figure 1 above because the reality is that strategic planning is done to ensure success in the organisation (Du Plessis, 2015a). No organisation can be successful without succession planning and it is deduced that the fact that NZ has more than 80% small businesses (i.e. less than 10 employees) the managers or owners could walk around with their "succession plans" in their heads instead of in writing.

Assessing Employee Attitudes

Due to increasing diverse workforces in NZ (Du Plessis and Sukumaran, 2015), it was necessary to test their opinions and it was related to the area of employee attitudes. The actual in 2010 (20.0%) and the predicted percentage for 2020 (48.4%) resulting in a 28.4% increase in importance, according to the respondents. It can be deduced that employers and also HR practitioners are more aware of employee attitudes in the work environment and by using data (obtained from surveys) they get a better understanding of the importance of employee attitudes on organisational performance. Although their prediction for 2020 is less than 50% of the respondents (only 48.4%) that regard this as important or critical for success it is more than double what the actual figure is for 2010. It is really alarming and HR practitioners and managers should take note of this as attitudes are becoming more important for managers when employing people. Employers are of the opinion that they would rather employ a person with the right attitude and train such a person than to employ somebody with the qualifications having a bad attitude (Du Plessis, 2015b).

Employee Training and Development

Respondents were asked to give a response whether their organisation is training their employees meaning in-house or on-the-job training or rather developing their employees' careers by supporting them with further studies. Data was collected by these organisations' managers that participated, and was stored in their HRISs.

There was a 10% lower figure given for the actual figure in 2010 as what was predicted (48.5%) for 2010. It seems that organisations would establish themselves as an employer of choice for the future (65%) as they experience the lack of skills attributes and knowledge among their employees if they are not the employer of choice. According to Du Plessis (2015b) employees only have to visit the organisation's website to determine if their organisation is offering the equivalent as other employers. It is always good if employees compare their rewards with similar organisations. Employees leaving an organisation now place their negative experiences or positive experience on the social media, Facebook and others, and employers / organisations are compared or measured by the public opinion of ex-employees or current employees. It is one thing to recognise the need to be the employer of choice, however it is quite another thing to have the rewards on the table for the employees and what they really experience working for an organisation (Du Plessis, 2015a).

Workforce Productivity and Output

This question was designed to establish the extent to which organisations, in other words employers and managers could measure their workforce productivity and outputs. The research outcomes for this question confirm that in 2010 only 58.3% of the respondents regarded this as important and the prediction to 2020 was up to 80% which is almost a third more of the respondents that realise they need to use data – information – to determine the success of their organisations. The increasing global nature of competition requires that organisations use all of their available resources to survive and to succeed and therefore organisations need to get information to do their strategic planning (Figure 1 above) and Figure 2 below confirms how Big Data should be used by employers. The emphasis on human resources and their value add in an organisation is of the utmost importance for success (Du Plessis, 2015a).



Source: Developed by the authors

Managing of Labour Costs

This question was put to the respondents to determine how managers control and manage their organisation's labour costs; more specific how HR practitioners in organisations or as consultants manage labour cost with the use of Big Data. Managers and HR practitioners are involved in the decision making processes and it is interesting to determine to what extent they regard it important in the running of the business. In a study done by the SHL Workers and Good Management (Hopkins, 2012) it was found that 36% of managers regard their participation and involvement in the strategic direction of the organisation as part of their job. The study further revealed that it is not just managing labour costs but include responsibility, more control (empowerment) and more of a say in their work they are doing.

The respondents in the current research project responded in 2010 with a mere 50% that acknowledged that they are responsible to use Big Data to manage labour costs and it only increased to 56.7% predicted for 2020. This is really disappointing that HR managers do not use their HRIS and take full responsibility for managing labour costs in their organisations. It can be deduced that HR practitioners and employers know that it is important for them to manage labour costs but that they don't acknowledge how important the use of their HRISs is. It seems that they also don't want to accept responsibility for managing of labour costs though all the data is available on their organisation's HRIS.

MANAGERIAL IMPLICATIONS

The use of Big Data in managing organisations is becoming more important for the success of any organisation. The six themes under discussion in this article confirm that managers, HR managers and HR practitioners should use Big Data to make wise decisions, and HRISs to improve succession planning, employee information such as attitudes / training / development of their careers and productivity / performance. Even labour costs could be controlled better with the use of HRIS systems. It was also found in this study that managers' and HR managers' current contribution to value add should increase by using Big Data and their HRISs to achieve their organisation's goals.

RECOMMENDATIONS FOR HR PRACTITONERS AND EMPLOYERS

Concrete recommendations are proposed in this section. Even though a very high level of workforce productivity and output (80.0%) was predicted for 2020, and it is the highest prediction for any of the six themes, for 2020, the main concern is if HR practitioners, managers and employers realise what the value of Big Data could be and what value the use of HRIS could have in their organisations.

HR practitioners, managers and employers should:

- Use analysts to analyse the Big Data (see Figure 2) for them so that it becomes useable as knowledge to make wise decisions in future.
- Use their HRIS in their organisations and HR practitioners should ensure that all relevant data, such as employee records, costs and so, on is entered into their HRIS.

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- Ensure that they don't only measure workforce productivity and outputs but all of the mentioned six themes.
- Get their organisation's succession planning in writing and entered into their data bases as 40% or even the predicted 66% importance is not good enough for a successful business.
- Accept the fact that employee attitudes could have a detrimental effect on their business and they should pay serious attention to this. Employee climate surveys should be done regularly and the outcomes should not be ignored.
- Use data to combat labour costs. Utilising of resources goes hand-in-hand with this item and if a proper HRIS is in use, it could save the organisation a huge amount of money.

CONCLUSIONS

Findings indicate that the use of HRIS systems in the day-to-day activities of New Zealand organisations seems to get momentum. For 60.0% of the respondents, it is very important to critical for success in 2020. Organisations need to plan for the future because the reality is that strategic planning is done to ensure success in the organisation. No organisation can be successful without succession planning. It can be deduced that employers and also HR practitioners are more aware of employee attitudes in the work environment and by using Big Data (also obtained from surveys) they get a better understanding of the importance of employee attitudes on organisational performance.

It is always good if employees compare their rewards with similar organisations. Employees leaving an organisation now place their negative experiences or positive experience on the social media, Facebook and others, and employers/organisations are compared or measured by the public opinion of ex-employees or current employees. The increasing global nature of competition requires that organisations use all of their available resources to survive and to succeed and therefore organisations need to get information to do their strategic planning. It was confirmed in this research how Big Data should be used by employers. The emphasis on human resources and their value add in an organisation is of the utmost importance for success. Training and development play a huge role in the success of any organisation and employers / HR practitioners should assist employees to develop their careers. A useful diagram was developed for use by employers and HR practitioners (Figure 1) to show the use of the strategic influence of Big Data. The use of Big Data to get to wise decisions is depicted in Figure 2.

The six related themes show increases from 2010 in their prediction for 2020 and employers and HR practitioners in New Zealand should be aware of the benefits of Big Data and HRISs. Recommendations were made in the previous section. A new kind of HR practitioner as well as a business manager and employee can be expected in successful organisations in the future adding sustainable value by using Big Data.

REFERENCES

- Badenhorst, C.J. (2016). Identifying and Managing the Impact of NeoroLeadership during Organisational Change. LAP Lambert Academic Publishing, Germany
- Bowen, G. & Bowen, D. (2016). Risks through strategic partnerships and outsourcing. Journal of Global Business and Technology (JGBAT). 12 (1) Spring 2016: pp48-59
- Burchell, N. (2001). 2000 to 2010: Future directions for HR in New Zealand. Auckland: Unitec Institute of Technology.
- Carty, M. (2014). 'Big data: HR needs to stop reporting and start predicting'. [online] Available from: http://www.personneltoday.com/hr/big-data-hr-needs-stop-reportingstart-predicting/. Accessed: 26 July 2014.

Chavan, M. (2009). The balanced scorecard: a new challenge. Journal of Management Development, 28(5), 393-406.

Du Plessis, A. J., Frederick, H. (2012). Effectiveness of e-recruiting: empirical evidence from the Rosebank business cluster in Auckland, New Zealand. Science Journal of Business Management ISSN: 2276-6367, 12 (3) 2012.

- Du Plessis, A. J. (2014). Human capital and knowledge sharing in entrepreneurship to enhance competitive advantage: some empirical evidence. International Journal of Managerial Studies and Research (IJMSR) 2, (11) December, PP 47-56.
- Du Plessis, A.J. (2015a) (Ed). HRM and ER in South Africa: contemporary theory and practice. In Du Plessis, A. J., (Ed). Munyeka, W., Chipunza, C., Samuel, M. O., Naidoo, K., Keyser, E. & Gura, M. Juta Publishers, Cape Town, South Africa.
- Du Plessis, A. J. (2015b). Evidence of the changing activities, goals and roles of HR practitioners. Journal of Community Positive Practices (JCPP) 15 (1): 3-16
- Du Plessis, A. J. & Sukumaran, S. (2015). The role of HRM in leadership development, talent retention, knowledge management, and employee engagement. World Journal of Social Sciences, 5 (1) January: 93-110
- Grant, R, Butler, B, Orr, S & Murray, PA. (2014). Contemporary Strategic Management. Australia: John Wiley & Sons.
- Hopkins, L. (2012). Are your employees satisfied with their remuneration? HRM on-line editor, e-magazine
- Institute of Personnel Management New Zealand. (1994). Human resources priorities for competitive advantage. 1994-2000. The IPM survey report. Auckland: New Zealand: Institute of Personnel Management New Zealand
- Jørgensen, H. H., Owen, L., & Neus, A. (2009). Stop improvising change management! Strategy & Leadership, 37(2), 38-44.
- Paine, S. (2008). The emerging role of HR practitioners' expectations, challenges and trends. Unpublished Master dissertation, Unitec New Zealand
- Nel, P. S., Werner, A., Du Plessis, A. J., Fazey, M., Erwee, R., Pillay, S., Hearn Mackinnon, B., Millett, B., Wordsworth, R. (2012) Human Resource Management in Australia & New Zealand. Oxford University Press, South Melbourne, Victoria, Australia
- Nel, P.S, Werner, A., Botha, C.J., Du Plessis, A.J., Mey, M., Ngalo, O., Poisat, P. & Van Hoek L. (2014). Human Resources Management. 9th ed. Cape Town: Oxford University Press.
- Nel, P. S., Du Plessis, A. J., (2011). Unpublished Report on Human Resources Priorities for New Zealand from 2010 to 2020 onwards. Unitec New Zealand
- Rouse, M. (2015). Big Data. http://searchcloudcomputing.techtarget.com/definition/big-data-Big-Data.
- Stephens, J., Manrodt, K., Ledlow, G., Wilding, R. & Boone, C. (2014) A twist on Oliver: Ten lessons to transform healthcare performance. Journal of Global Business and Technology (JGBAT). 10 (1) Spring 2014: pp 62-84

THE PREDICTORS OF BUSINESS PERFORMANCE IN THE INVESTMENT MANAGEMENT INDUSTRY

Bongekile Mgxaji, Richard Chinomona, and Tinashe Chuchu

ABSTRACT

The current study aims to investigate the influence of internal marketing, relationship quality and continuity as predictors of business performance in the investment management industry in South Africa. The tested relationships produced satisfactory results consistent with how they were hypothesised. Specifically, it appears that internal marketing has a positive impact on business performance. These results will have a beneficial outcome on investment management companies and may prompt them to align business strategies to focus more on internal customers which are the employees. Data was collected from 150 investment managers based in Cape Town and Johannesburg. Smart PLS was used to analyse the data. Relationship quality is seen to have a positive effect on business performance and seems to have an encouraging effect on their relationships that are long-term orientated. However, what is evident is that through the alignment of business strategies, it would be advised that investment management companies focus on the quality of relationships that they have with their clients, as this has a favourable result as indicated by the findings of the study. Finally, relationship continuity has a good impact, but there is no significant influence on business performance as indicated by the findings.

Keywords: Internal Marketing, Relationship Quality, Performance

INTRODUCTION

Investment banking as a research area has received much attention in recent years from authors such as Oesch, Schuette and Walter (2015) and Brou and Krueger (2016). Internal marketing efforts have the ability to alter organisational cultures for the better (Fortenberry & McGoldrick, 2016). An investment management department is also available in most of the big banks. Therefore, it is surprising to realise that there has not been much research done to find important elements to measure the business performance in the investment management industry. This is important for investment managers because increased customer satisfaction leads to increased revenue. In addition (Alexandris, Zahariadis, Tsorbatzoudis & Grouios, 2004) studied the internal marketing concept and realised that all the employees especially client servicing should be viewed as internal buyers, their day to day activities as company products. They should be treated as customers even though they work for the company (Alexandris et al., 2004).

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According to Ballantyne and Varey (2006) to achieve a great level of service quality, formulate relationships and company strategies that maintain a customer centric service culture, internal marketing has to be implemented (Ballantyne & Varey, 2006). Ravindra (2013) further adds by saying that to implement internal marketing goals, especially in the investment management industry, different strategies aimed at internal employees should be executed, this will also assist in improving internal communication. In addition customers often measure the company on the quality of service they receive from customer service employees hence the internal marketing, relationship quality, relationship continuity has to be explode in the investment management industry (Ravindra, 2013).

Introduction to the Investment Management Industry

According to Blake, Rossi, Timmermann, Tonks, and Wermers (2013), the investment management industry involves companies that are involved in managing retirement, health and welfare. These companies are called sponsors. Sponsors save funds so that they are able to pay their employees when they retire. Companies owning pensions funds sometimes manage their own funds or get fund managers or consultants to perform their investment activities (Blake et al., 2013). Pension funds are a very important vehicle through which workers can put aside some money while they are actively involved in performing their duties. This is so that they may retire comfortably or maintain a reasonable standard of living when they retire (Blake et al., 2013). The pension promise is everyone's responsibility as it has important implications for the economy and society in general (Blake et al., 2013). Johnson and Jan de Graaf (2009) pursued by saying that there is long-term commitment between employer, employees, trustees, asset consultants and a whole lot of other stakeholders. It is important to nurture those relationships as they foster economic growth.

PROBLEM STATEMENT

The investment management industry is very important to the development of the South African economy. It is surprising, then, that there has not been enough research done on the predictors of business performance in the investment management industry. Internal marketing has been identified as a predictor of business performance.

Main Problem and Sub-Problems

There is a lack of knowledge on how internal marketing, relationship quality, relationship continuity as variables contribute to business performance. Though the need for internal marketing is understood, the reality demonstrates that nothing much has been done to properly identify predictors of business performance in the investment management industry. This study will evaluate internal marketing, relationship quality and relationship continuity as predictors of business performance and contextualise its influence on relationship quality, relationship continuity and business performance in the investment management industry. The first sub-problem is to examine the extent to which internal marketing affects business performance. The second sub-problem is to find out whether relationship quality and relationship continuity have an impact on business performance.

Purpose of the Study and Research Objectives

This study aimed to investigate a role played by relationship quality, internal marketing and relationship continuity as predictors of business performance in the investment management industry of South Africa. As far as theoretical objectives are concerned, the current study seeks to review literature on internal marketing, relationship quality, relationship continuity and business performance. Furthermore, the study also serves to address empirical

objectives such as the influence of internal marketing on business performance, the influence of relationship quality on business performance and lastly the influence of relationship continuity on business performance.

This study will add value to the investment management industry by giving insights to the extent in which internal marketing, relationship quality and relationship continuity affects business performance. As such investment managers are likely to understand or have a better appreciation of the strategies they need to design in order to have a greater influence on of internal marketing, relationship quality and relationship continuity on business performance. Also given that little has been done on the study particularly on the South African context, this study will provide new literature that will be useful for future researchers. The remainder of the paper will focus on the literature review, research model and hypothesis statement, research methodology, results, implications and finally suggestions for future research.

LITERATURE REVIEW

Resource Based Theory

The resource-based view focuses on the firm's internal characteristics, especially the cultural patterns of learning and human capital asset accumulation, and has a significant impact on the firm's capability to introduce new products and compete for market share. Resource-based theory is naturally centred on the relationship between resources and competitive advantage in which vital resources are utilised in offering a competitive advantage to an organisation (Gillis, Combs & Ketchen, 2014). The resource-based view expands on this thinking further by stating that competitive advantage can be achieved and only if the capabilities creating the advantage are supported by resources that are not easily duplicated by competitors.

Internal Marketing

Tsai (2014) characterises inward promoting as all the exercises that a business needs to achieve in propelling preparing and urging its employees to enhance the nature of services rendered to its clients. Internal marketing is a marketing perspective in which employees are treated as customers with the intent of making an organisation successful through shaping employee roles to match their needs (Winston & Cahill, 2012). Zubair, Kabeer, Karim, and Siddiqui (2012) view internal marketing as an interior showcasing apparatus that assumes a critical part in adequately enlisting, developing and rousing workers to empower them to give uncommon client administration. They additionally specify that it is not sensible to suspect perfect administration from a business whose representatives are not arranged to convey such administrations.

Relationship Quality

Wong and Dioko (2013) stated that relationship quality is the extent to which shoppers need to manage associations with their administration suppliers. Relationship quality underscores the relationship between the administration supplier and the purchaser, and perspectives consumer loyalty as key to the accomplishment of a relationship (Wong and Dioko, 2013). Beatson, Lings and Gudergan (2008), raise the imperative point that, more often than not, customers don't see any contrast between the association and the individual giving the administration, subsequently the collaboration of clients with salesmen gets to be essential in deciding the nature of the relationship. For the administration supplier to work together effectively, it is critical for them to comprehend the nature of a relationship from a customer's perspective (Beatson et al., 2008). The consciousness of relationship quality has emerged from hypothesis and research in the field of relationship advertising (Verma, Sharma & Sheth, 2015; Palmer & Bejou, 2015). Besides relationship quality expects to persuade to in which a definitive objective is to

reinforce officially solid connections and to stir enthusiasm on clients that are not faithful to the association and cement existing connections (Parish, Lampo, & Landua, 2015). The significance of relationship quality has been investigated by various diverse creators like (Mullins, Ahearne, Lam, Hall & Boichuk, 2014).

Relationship Continuity

Relationship continued greatly depends on relationship communication that is critical for enhanced relationship quality (Lassar, Roy & Makam, 2016). Besides, how the relationship is seen by the administration supplier conditions him to future desire. The degree in which relationship progression is seen by an exchanging accomplice conditions the exchanging accomplice's desire of dragging out the relationship later on (Heide & John, 1990). Additionally, in the starting phases of the relationship, there is readiness to put by both accomplices keeping in mind the end goal to exploit the nearby joint effort and the continuation of the relationship (Ellram & Edis, 1996; Ramsay, 1996; Cousins, 2002).

Business Performance

Execution has to do with a result created through the joined exertion of an association (Rosa, Morote & Colomina, 2013). It is judged against some objective. To accomplish objectives through activities, inner or outer elements could influence the course towards an unwelcome result or even a vastly improved result. An individual or an association needs to assume liability for seeking after an objective through exertion, capacity and discernment, yet the assuming of liability does not mean one will control the deciding result. Execution is the yield from the expected activity (Rosa et al., 2013). As indicated by Andrews, Boyne, and Walker (2011) studies on authoritative execution concentrate on two streams: a financial viewpoint, which distinguishes achievement considers the outside business sector components, and a hierarchical point of view, which expands on behavioural and sociological standards and their fit in the earth. Both the monetary and authoritative variables are key figures an association's execution (Andrews et al., 2011).

RESEARCH MODEL AND HYPOTHESIS STATEMENT

Drawing from the literature review, a research model is conceptualised Figure 1. In this research model, internal marketing, relationship quality and relationship continuity are the predictor variables while business performance is the sole outcome variable. In this conceptual model it is expected that the predictors will have a desirable positive impact on the outcome variable. The relationships between the predictors and the outcome variable are developed under the hypothesis development section.



Figure 1: Conceptual Model

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H1: Internal Marketing and Business Performance

Internal marketing assists in generating revenue for the organisation through happy internal customers (Sheng & Hsin, 2007). Internal Marketing has a positive influence on business performance and is a key driver of financial and non-financial business performance (Panigyrakis & Theodoridis, 2009). Therefore, employees of the business play a very important role in building and maintaining relationships with stakeholders. Most organisation face a huge challenge by not recognising the role played by employees. For that reason it can therefore be hypnotised that:

H1: There is a positive relationship between internal marketing and business performance in the South African investment management industry.

H2: Relationship Quality and Business Performance

Customers see no difference between the person providing the service and the organisations; therefore the determinant of relationship quality is the interaction between the customer and the salesperson. As such, it is empirical for service providers to understand the quality of a relationship from a customers' point of view for the business perform well (Beatson et al., 2008). Firm- and industry-level assessment of the quality-service loyalty link provides useful information to shareholders on the viability of business performance. Based on the theory above it can be hypnotised that:

H2: There is a positive relationship between relationship quality and business performance in the South African investment management industry.

H3: Relationship Continuity and Business Performance

To assess the relationship between continuity and performance perception has to be considered as it examines of how an individual views and makes sense out of his or her environment (Ansah & Chinomona, 2015). Today, in an environment of competitive supply chain conditions, there is a tendency among buyers to rush into alliances with suppliers without first laying the foundation necessary to sustain the relationship over a long period of time (Morgan & Hunt, 1994). To assess the relationship between continuity and performance perception has to be considered as it examines of how an individual views and makes sense out of his or her environment.

The degree in which relationship continuity is perceived by a trading partner conditions the trading partner's anticipation of prolonging the relationship in the future (Heide & John, 1990). In the initiation stages of a relationship, both partners invest in a relationship with the objective of benefiting from the advantages aligned with continuing with the relationship (Cousins, 2002). According to Jackson (1985), the purchase decision of a new product or service creates a high level of risk and uncertainty caused by complicated products and services rendered by the company. He continues by saying that a decision to repurchase is usually the same decision to continue a business relationship. Ring and van de Ven (1994) suggest that if a customer is satisfied with the service provider based on the past purchase experience and fairness of the transaction, that relationship has a high probability of continuing. In summary, relationship continuity is the readiness of a customer to continue with the relationship for a longer period. It is expected that satisfied customers remain with the service provider rather than change service providers. This will result in sustained income. Therefore, it can be hypothesised that:

H3: There is a positive relationship between relationship continuity and business performance in the South African investment management industry.
RESEARCH METHODOLOGY

Research Philosophy

Research methodology may be defined as a system of explicit rules and procedures upon which research is based and against which claims for knowledge are evaluated (Frankfort-Nachmias & Nachmias, 1997). It refers to the techniques used to acquire and analyse data to create new knowledge (Petty, Thomson & Stew, 2012). Research methodologies have an influence on the validity and generalisation of a study (McGrath & Brinberg, 1983), and play a vital role in knowledge development (Yang, Wang & Su, 2006). Comprehending and using a relevant methodology into the present study is essential in order to identify the unit of analysis and employ compatible methods that will provide intended results.

Population and Sample

The target population for this research study was investment managers located in Johannesburg and Cape Town. Simple random sampling was used in this study, and this was done by selecting a simple random sample numbered list of all the investment managers from the financial Services Board list. In total, the sample size was 150. Simple random sampling was used in this study. This was done by selecting a simple random sample numbered list of all the investment managers. The sampling frame was the investment managers in Johannesburg and Cape Town with a representative split. The respondents were selected from 20 Investment management companies. The respondents were differentiated, by seeking from each organisation an example of each of the following: business development managers, client servicing managers, fund managers and senior marketing executive responsible for institutional investments. These individuals were selected with the expectation that they would give different views and knowledge regarding the importance of the predictors of business performance.

The researcher made appointments in advance and the interviews were conducted at the respondents' offices. The purpose and scope of the research was explained when the appointments were set up. Most of the respondents are the researcher's competitors and some are potential clients. The extent of the relationship with them varies between individuals. The researcher interacts with some on a regular basis, while others are only dealt with occasionally. The total sample size is 150. The sampling units are 150 client-facing investment professionals.

Description of respondent	Number sampled
Client Servicing Executives responsible for institutional investments.	60
Business Development Executives	60
Fund Managers	30

Table 1: Profile of Respondents

The respondents were differentiated, by seeking from each organisation an example of each of the following: business development managers, client servicing managers, fund managers and senior marketing executive responsible for institutional investments. These individuals were selected with the expectation that they will give different views and knowledge of the importance of the predictors of business performance.

The Research Instrument

In this study, the measurement instrument contain four groups of questions. The questionnaire design was based on the objectives and study variables. Each questionnaire came with a letter from the researcher where the purpose and confidentiality of the study was described. The first group of questions referred to the internal marketing of the investment managers. The questions on this construct were adapted from Caruana and Calleya (1998); Tsai (2014) and Ahmed et al., (2003) measured by using eight items. Relationship quality was investigated with the second group of questions. The questions on this construct were adapted from measured by using seven items. Relationship continuity was investigated with the third group of questions adapted from Gilliland and Bello (2002). Business performance was investigated with the fourth set of questions, measured by using five items; modified from Venkatraman and Ramanujam (1986). Respondents answered the questions pertaining to these four sections by using a five-point Likert Scale, where the score of agreement and disagreement was stated. The fifth group of questions helped to form the demographic and occupational profile of the sample.

Procedure for Data Collection

According to Sukamolson (2000) a personal interview consists of an interviewer asking the respondent questions in a face-to-face situation. In this case the interviews were conducted with the top five investment management companies in Johannesburg.

The respondents completed the questionnaires themselves. Self-administered questionnaires were circulated to investment managers who are based in Johannesburg and Cape Town via e-mail. Survey links were emailed to 150 respondents. A total of 105 participants responded to the online survey. When combined with the five personal interviews conducted, the response rate came to 73%. Of the 105 returned questionnaires, seven were inadequate and discarded accordingly. Combining the two data collection steps resulted in a total of 98 usable questionnaires.

RESULTS AND FINDINGS

Respondent Profile

Table 2 on the following page provides a contextual summary of information regarding the respondents that participated in the study. Smart PLS was utilised to provide respondent profiles and comparison of the constructs. The respondents were asked to provide demographic information, including gender, age, working experience, marital status and education. The respondents were asked to provide demographic information, including gender, age, working experience, marital status and education. The respondents were asked to provide demographic information, including gender, age, working experience, marital status and education. The respondents were predominantly male (67.3%). The primary age group of the respondent was that of 36 - 45 years (63.3%). 71.4% of the respondents were married and 83.7% have more than six years working experience.

Characterist	tics	Frequency	Percent	Cumulative Percent
Job Title	Business Development Manager	42	42.9	42.9
	Manager Consultant	8	8.2	51.0
	Chief Operating Officer	2	2.0	53.1
	Human Resources Officer	3	3.1	56.1
	Client Services Manager	29	29.6	85.7
	Director	10	10.2	95.9
	Investment Specialist	4	4.1	100.0
	Total	98	100.0	
Experience	1-3	7	7.1	7.1
(Years)	4-6	9	9.2	16.3
	more than 6	82	83.7	100.0
	Total	98	100.0	
Education	Matric	3	3.1	3.1
	Diploma	9	9.2	12.2
	Degree	18	18.4	30.6
	Honours	42	42.9	73.5
	Masters	23	23.5	96.9
	Other	3	3.1	100.0
	Total	98	100.0	
Gender	Male	66	67.3	67.3
	Female	32	32.7	100.0
	Total	98	100.0	
Age	18-25	1	1.0	1.0
	26-35	27	27.6	28.6
	36-45	62	63.3	91.8
	46 and above	8	8.2	100.0
	Total	98	100.0	
Marital	Single	25	25.5	25.5
status	Married	70	71.4	96.9
	Other	3	3.1	100.0
	Total	98	100.0	

Table 2: Respondent Profile

Resea	rch	Descrip	otive	Cronba	ch's Test	C.R. Value	AVE	Factor
Const	ruct	Statisti	cs				Value	Loading
		Mean	SD	Item-	α value			
				total				
BP	BP1	415	100	048	0.81	0.88	0.65	0.90
	BP2	4.73	0.91	0.49	_			0.92
	BP3	4.23	146	028	_			0.66
	BP4	4.80	0.95	0.40	_			0.70
RC	RC1	361	0.85	0.45	0.85	0.87	0.85	0835
	RC2	338	090	0.44				0823
	RC3	405	072	0.60	-			0589
	RC4	354	072	0.56				0725
	RC5	381	086	0.48				0830
	RC6	415	072	0.45	_			0501
IM	IM1	4.11	0.80	0.58	0.940	0.95	0.559	0.70
	IM2	3.48	1.13	0.62				0.70
	IM3	3.61	1.02	0.62				0.74
	IM4	3.94	1.30	0.62				0.78
	IM5	3.95	0.83	0.61				0.67
	IM6	3.90	0.95	0.71				0.77
	IM7	3.71	1.02	0.65				0.80
	IM8	3.48	1.07	0.56				0.65
	IM9	3.19	1.02	0.64				0.77
	IM10	3.86	1.08	0.65				0.77
	IM11	3.81	1.00	0.75				0.80
	IM12	3.74	1.01	0.68				0.83
	IM13	3.82	1.01	0.55				0.71
	IM14	3.98	0.99	0.70				0.79

Table 3: Scale Accuracy Analysis

CR: composite reliability; AVE: average variance extracted; a significance level p < 0.05; b significance level p < 0.01; c significance level p < 0.001.

Resear	rch	Descrip	tive	Cronbac	ch's Test	C.R. Value	AVE	Factor
Constr	ruct	Statistic	es				Value	Loading
		Mean	SD	Item-	α			
				total	value			
RQ	RQ1	367	092	0.66	0.94	0.95	0.70	090
	RQ2	361	083	0.59				086
	RQ3	381	071	0.60				077
	RQ4	354	088	0.60				089
	RQ5	345	093	0.54				089
	RQ6	354	084	0.53				088
	RQ7	357	089	0.44				083
	RQ8	347	106	0.44				067

Table 3: Scale Accuracy Analysis Continued

CR: composite reliability; AVE: average variance extracted;

^{*a*} significance level p<0.05; ^{*b*} significance level p<0.01; ^{*c*} significance level p<0.001.

As observed in Table 3 above, mean values ranged from 3.48 to 4.87, standard deviation values ranged from 0.80 to 1.46 and item to total values ranged from 0.40 to 0.70. Cronbach's alpha values were above the recommended 0.6 thereby confirming acceptable reliability whilst composite reliability values ranged from 0.868 to 0.950 which was above the recommended 0.6. Average variance extracted values ranged from 0.559 to 0.845. Most of the factor loadings were above 0.5.

Correlations between Constructs

The inter-construct correlation matrix was used to check for discriminant validity of the research constructs and is illustrated on the following page in table 4.

Table 5: Inter-construct Correlation Matrix							
	IM	RQ	RC	BP			
IM	1.00						
DO	0.44	1.00					
RQ	0.44	1.00					
RC	0.50	0.46	1.00				
ĸc	0.50	0.40	1.00				
BP	0.39	0.31	0.35	1.00			

Table 5: Inter-construct Correlation Matrix

Notes: IM: Internal Marketing; RQ: Relationship Quality; RC: Relationship Continuity; BP: Business Performance.

As indicated in table 4 above, correlations among latent constructs were evaluated in order to observe whether they were lower than 1.0. Inter-correlation values ranged from 0.31 to 0.50 and for all paired latent variables are below 1, therefore, indicating the existence of discriminant validity (Chinomona, Lin, Wang & Cheng 2010).

Proposed relationship	Hypotheses	Path coefficient	T-statistic	Decision on proposed hypothesis
$\mathrm{IM} \to \mathrm{BP}$	H1	0.303	2.83	Accept, significant
$RQ \rightarrow BP$	H2	0.031	2.94	Accept, significant
$\mathbf{RC} \rightarrow \mathbf{BP}$	Н3	0.298	0.35	Accept, however not significant

As hypothesised, Internal Marketing positively affects Business Performance, as shown by the positive path coefficient of 0.303 and t-statistics of 2.83, therefore the hypothesis is significantly accepted. Relationship quality positively affects Business Performance but has an insignificant impact on Business Performance as indicated by a path coefficient of 0.031 and a t-statistic 2.94. Furthermore, Relationship continuity positively affects Business Performance; this is evident from positive path coefficient of 0.298 and a t-statistic of 0.35. Therefore, the hypothesis is significantly accepted.

MANAGERIAL IMPLICATIONS FOR INVESTMENT BANKING FIRMS

The current study suggests that internal marketing programs have an impact on enhancing business performance in the investment management industry in South Africa. The findings of the study are consistent with the previous studies, in that it was found that satisfied internal customers through internal marketing programs are more inclined towards enhancing firm performance (Sheng & Hsin, 2007), effective training also contribute towards firm performance (Panigyrakis & Theodoridis, 2009), internal favourable policies for employees make them concerned to work for organisational profitability (Tortosa, Moliner, & Sa'nchez, 2009), and training and shared vision improve profitability of the firm (Mehra, Joyal & Rhee, 2011). This study is also consistent with the findings attained by Ahmed et al. (2003). Therefore it is empirical for managers in the investment management industry to be open-minded about internal marketing and apply it in a more focused manner for the organisation to perform well. Relationship quality generally measures the strength of the relationship between two parties (Palmatier, Dant, Grewal & Evans, 2006).

As described in the marketing literature, relationship quality has appeared as a model that shows the extent that the customer trusts and has confidence in the service provider's future performance because the provider's past performance has been consistently satisfactory. It is the nature of the relationship between the service provider and its clients that decides the likelihood of continued interchange between those parties in the future. It has been suggested that a good relationship is particularly vital for conditions where customers face intangibility, uncertainties, lack of familiarity, and long-time horizon of delivery (Verma, Sharma & Sheth, 2015). For this study it seemed as if the service providers' evaluation revolves around relational quality between partners and the desire to maintain relationships. Based on the results of this study, managers in the investment management industry should consider the technical aspect of the relationship in order to achieve great business results. The focus should be on servicing customers well to ensure satisfaction, because that will guarantee repurchase of services and strengthen the relationship further resulting in exceptional business performance.

Suggestions for Future Research

While this study makes a substantial and meaningful contribution to both academia and the investment management industry, there were limitations to the study, hence the suggestion for future research. The data was gathered in Johannesburg and Cape Town, which represents only two provinces of South Africa; the rest of other provinces were left out and the sample size of 150 was small. The results would have been more informative if the sample size was bigger and data collected from all nine provinces of South Africa. For that reason, future studies may be done by including data from other South African provinces. In addition, this study should be stretched beyond South African boundaries and extend to other African countries such as Ghana, Nigeria and Zimbabwe to compare the outcomes. Future studies can also go beyond investment management to investment consulting using the current conceptual model. This will be beneficial and be of great contribution to the new body of knowledge of both the investment management and consulting industries as they are interlinked. For some reason this research context happens to be neglected in academics.

REFERENCES

- Alexandris, K., Zahariadis, P., Tsorbatzoudis, C., & Grouios, G. (2004). An empirical investigation of the relationships among service quality, customer satisfaction and psychological commitment in a health club context. European Sport Management Quarterly, 4(1), 36-52.
- Anderson, E.W. (1994). Cross-category variation in customer satisfaction and retention, Marketing Letters, 5 (1),19-30.
- Andrews, R., Boyne, G. A., & Walker, R. M. (2011). Dimensions of publicness and organizational performance: A review of the evidence. Journal of Public Administration Research and Theory, 21(suppl 3), 301-319.
- Ansah, M. O., & Chinomona, R. (2015). Enhancing Organizational Perspicacity in the Ghanaian Insurance Industry: Viewpoint of Customers on Sales and Marketing Officers. Journal of Global Business and Technology, 11(2), 14.
- Ballantyne, D., & Varey, R. J. (2006). Creating value-in-use through marketing interaction: the exchange logic of relating, communicating and knowing. Marketing theory, 6(3), 335-348.
- Beatson, A. T., Lings, I., & Gudergan, S. (2008). Employee behaviour and relationship quality: impact on customers. The Service Industries Journal, 28(2), 211-223.
- Berry, L. L., Hensel, J.S., & Burke, M.C. (1976). Improving retailer capability for effective consumerism response. Journal of Retail, 52(3)3–14.
- Berry, L. L., & Parasuraman, A. (1991). Marketing services: Competing through quality. New York: The Free Press.
- Blake, D., Rossi, A., Timmermann, A., Tonks, I., & Wermers, R. (2012). Decentralized Investment Management: Evidence from pension fund industry. City University working paper.
- Burton, D.B., Ryan, J.J., Axelrod, B.N., Schellenberger, T., & Richards, H.M. 2003. A Confirmatory Factor Analysis of the WMS-III in a clinical sample with cross validation in the standardization sample. Archives of Clinical Neuropsychology, 18, 629-641.
- Brou, F. B., & Krueger, T. M. (2016). Continental and National Differences in the Financial Ratios of Investment Banking Companies: An Application of the Altman Z Model. Journal of Accounting and Finance, 16(3), 37-49
- Cant, M., Gerber-Nel, C., Nel, D., & Kotze, T. (2003). Marketing research. Cleremont: New Africa Books (Pty) Ltd.
- Caruana, A., & Calleya, P. (1998). The effect of internal marketing on organisational commitment among retail bank managers. International Journal of bank marketing, 16(3), 108-116.
- Chen, C.K., Lin, Y.H., & Ho, C.S. (2006). Research on the relationship between internal marketing and medical personnel's turnover intension in the situation of a dangerous outbreak of illness like SARS. A regional Hospital for example. Cheng Chin Medical Journal, 2(4), 28–36.
- Chinomona, R.Lin JYC, Wang MCH and Cheng JMS. (2010). Soft power and desirable relationship outcomes: the case of Zimbabwean distribution channels. Journal of African Business 11(2):182-200.
- Chinomona, R. (2013). Information technology resource as a facilitator of suppliers' collaborative communication, network governance and relationship longevity in supply chains. Journal of Transport and Supply Chain Management, 7(1), 1–10.

- Cohen, L., & Manion, L. (1980). Research Methods in Education. London: Groom Helm Ltd.Cooper, J. (2013). US Pension Investment Consultants: A report for Fiduciaries, Internal Audit and risk management professionals. Retrieved 23 July, 2013, from http://www.diligencereviewcorp.com/wpcontent/uploads/2013/01/2013-US-Pension- Investment-Consultant-Report.
- Creswell, J.W. (1994). Research Design: Qualitative & Quantitative Approaches. London: SAGE Publications.
- Crosby, L. A., Evans, K.R., & Cowles, D. (1990). Relationship quality in services selling: an interpersonal influence perspective. Journal of Marketing, 54, 68–81.
- Eisingerich, A. B., & Bell, S. J. (2006). Relationship marketing in the financial services industry: The importance of customer education, participation and problem management for customer loyalty. Journal of Financial Services Marketing, 10, 86–97.
- Ellram, L. M., & Edis, O. R. (1996). A case study of successful partnering implementation. International journal of purchasing and materials management, 32(3), 20-28.
- Frankfort-Nachmias, C., & Nachmias, D. (1997). Research methods in the social sciences. London: Arnold.
- Fortenberry Jr, J. L., & McGoldrick, P. J. (2016). Internal marketing: A pathway for healthcare facilities to improve the patient experience. International Journal of Healthcare Management, 9(1), 28-33.
- Gerbing, D.W., & Anderson, J.C. (1988). An updated paradigm for scale development incorporating unidimensionalily and its assessment. Journal of Marketing Research, 25, 186–192.
- Gilliland, D. I., & Bello, D. C. (2002). Two sides to attitudinal commitment: the effect of calculative and loyalty commitment on enforcement mechanisms in distribution channels. Journal of the Academy of marketing Science, 30(1), 24-43.
- Gillis, W. E., Combs, J. G., & Ketchen, D. J. (2014). Using resource-based theory to help explain plural form franchising. Entrepreneurship Theory and Practice, 38(3), 449-472.
- Grönroos, C. (1981). Internal marketing an integral part of marketing theory. Journal of Marketing, 30 236–238.
- Grönroos, C. (1984). A service quality model and its marketing implications. Journal of Marketing, 18(4), 36-44.
- Heide, J. B., & John, G. (1990). Alliances in industrial purchasing: The determinants of joint action in buyersupplier relationships. Journal of marketing Research, 24-36.
- Hennig-Thurau, T., Gwinner, K.P. & Gremler, D.D. (2002). Understanding Relationship Marketing Outcomes: An Integration of Relational Benefits and Relationship Quality. Journal of Service Research, 4(3), 230-47.
- Hunt, H. Keith. (1977). "CS/D–Overview and Future Directions," Pp. 7–23 in Conceptualization and Measurement of Consumer Satisfaction and Dissatisfaction, H. Keith Hunt (Ed.). Cambridge, MA: Marketing Science Institute.
- Investment Consultant (2013). Financial Times Lexicon retrieved 29 July, 2013, from http://www.investorwords.com/2128/fund_manager.
- Jackson, B.B. (1985). Build customer-relationships that last, Harvard Business Review, 63(6), November-December, 120-8.
- Johnson, K. L., & Jan de Graaf, F. (2009). Modernizing pension fund legal standards for the twenty-first century. Rotman International Journal of Pension Management, 2(1), 44-51.
- Lassar, W. M., Roy, S., & Makam, S. B. (2016). Relationship Communication and Relationship Quality as Predictors of Relationship Continuity. In Rediscovering the Essentiality of Marketing (pp. 745-746). Springer International Publishing.
- McGrath, J.E., & Brinberg, D. (1983). External validity and the research process: A comment on the Calder/Lynch dialogue. Journal of Consumer Research, 10(1), 115-124.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. the journal of marketing, 20-38.
- Mullins, R. R., Ahearne, M., Lam, S. K., Hall, Z. R., & Boichuk, J. P. (2014). Know Your Customer: How Salesperson Perceptions of Customer Relationship Quality Form and Influence Account Profitability. Journal of Marketing, 78(6), 38-58.
- Oesch, D., Schuette, D. R., & Walter, I. (2015). Real Effects of Investment Banking Relationships: Evidence from the Financial Crisis. Available at SSRN 2391397.
- Palmatier, R. W., Dant, R. P., Grewal, D., & Evans, K. R. (2006). Factors influencing the effectiveness of relationship marketing: a meta-analysis. Journal of marketing, 70(4), 136-153.
- Panigyrakis, G. G., & Theodoridis, P. K. (2009). Internal marketing impact on business performance in a retail context. International Journal of Retail & Distribution Management. 37(7), 600-628.

- Parasuraman, A., Zeithaml, V. & Berry, L. (1985). A conceptual model of service quality and its implications for future research, Journal of Marketing, 49 (4), 41-50.
- Petty, N.J., Thomson, O. P., & Stew, G. (2012). Ready for a paradigm shift? Part 2: Introducing qualitative research methodologies and methods. Manual Therapy, 17, 378-384.
- Ravindra, K. (2013). Marketing of Educational Services: A Case Study of Hawassa University, Ethopia. International Journal of Trade & Global Business Perspectives, 2(2), 435-445.
- Ring, P.S. & Van de Ven, A.H. (1994). Development processes of cooperative interorganizational relationships. Academy of Management Review, 19 (1), 90-118.
- Rosa, C. P., Morote, R. P., & Colomina, C. I. M. (2013). Performance Improvement in the Spanish Local Government: A Proposal for Internal Control in Social Care Services. International Business Research, 6(4), p10.
- Sheng, C.C., & Hsin, C.H. (2007). Effects of Internal Marketing on Nurse Job Satisfaction and Organizational Commitment: Example of Medical Centers in Southern Taiwan. Journal of Nursing Research, 15(4), 243-335
- Sukamolson, S. (2000). Fundamentals of quantitative research. Retrieved 29 July, 2013, from http://www.paulchapmanpublishing.co.uk/books/ch1.
- Tsai, Y. (2014). Learning organizations, internal marketing, and organizational commitment in hospitals. BMC health services research, 14(1), 152.
- Ulrich, D., & Lake, D. (1991). Organizational capability: Creating competitive advantage. The Executive, 5(1), 77-92.
- Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. Academy of management review, 11, 801- 814.
- Verma, V., Sharma, D., & Sheth, J. (2015). Does relationship marketing matter in online retailing? A meta-analytic approach. Journal of the Academy of Marketing Science, 1-12.
- Wong, I. A., & Dioko, L. D. A. (2013). Understanding the mediated moderating role of customer expectations in the customer satisfaction model: The case of casinos. Tourism Management, 36, 188-199.
- Yang, Z., Wang, X., & Su, C. (2006). A review of research methodologies in international business. International Business Review, 15, 601-617. (http://www.hoovers.com/industry-facts.asset-management).

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